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

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ABSTRACT

This Article directs scholarly and regulatory attention to an overlooked subcategory 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

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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.

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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.\(^1\) Historically, the Banking Act of 1933 distinguished “banks” as institutions that take deposits and are examined and regulated by state or federal banking authorities.\(^2\) While much of the Banking Act of 1933 was repealed,\(^3\) current law still makes it illegal for an entity to take “deposits” without being regulated and examined by a state or federal banking authority.\(^4\) Consequently, the legal power to receive deposits is still considered to be the essence of a bank,\(^5\) and courts have also followed this approach.\(^6\)

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6. See Brenham Prod. Credit Ass’n v. Zeiss, 264 S.W.2d 95, 97 (Tex. 1953) (“The term ‘bank’ now by reason of the development and expansion of the banking business does not lend itself to an exact definition.” (citation omitted)). In general, a bank is a person
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 into the previously dominant market share of traditional banks. Referred to as “nonbanks,” such entities offer a variety of financial functions. Because 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.

7. See Peggy Twohig & Steve Antonakes, The CFPB Launches Its Nonbank Supervision Program, CONSUMER FIN. PROTECTION BUREAU (Jan. 5, 2012), http://www.consumerfinance.gov/blog/the-cfpb-launches-its-nonbank-supervision-program/ (“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.”).

8. 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.” Arthur E. Wilmarth, Jr., Why Fed Has Failed to Cope with the Nonbank Bank Dilemma, AM. BANKER (June 29, 1984), http://www.highbeam.com/doc/1G1-3327326.html. See generally 4A FED. PROC. L. ED. § 8:1 (2013); Davis W. Turner, Nonbank Banks: Congressional Options, 39 VAND. L. REV. 1735, 1743–57 (1986) (chronicling the regulatory and judicial response to nonbank banks and the numerous interpretations of the BHCA’s definition of bank). That loophole has permitted non-depository institutions like Sears to engage in bank-like services. Luis G. Fortuno, Non-Bank Banks: Present Status and Prospects for the Future, 20 REVISTA JURÍDICA U. INTERAMERICANA P.R. 305, 314 (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 “[f]or [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.” Explainer: What Is a Nonbank, and What Makes One “Larger”? CONSUMER FIN. PROTECTION BUREAU (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).
When nonbanks first entered the traditional banking market, both banks and nonbanks were competing in a physical playfield—they conducted 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 operation costs by relocating from offline to online. 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.

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. Moreover, while traditionally regulators focused mainly on banks as entities that could pose risk to the financial system, and especially the biggest

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(2012). 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) data repository, board of trade designated as a contract maker (or parent thereof), or a derivatives clearing organization (or parent thereof). Id. According to the definition, a company is “predominately engaged in financial activities” if 85% or more of the company’s consolidated revenues or assets are related to activities that are defined as financial in nature under section 4(k) of the BHCA. 12 U.S.C. § 5311(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 predominately engaged in financial activities. See 12 U.S.C. § 5322(a)(2)(K). The Federal Reserve decides what exactly constitutes “financial activity.” For a copy of Definitions of “Predominantly Engaged in Financial Activities” and “Significant” Nonbank Financial Company and Bank Holding Company, 78 Fed. Reg. 20,756 (Apr. 5, 2013) (codified at 12 C.F.R. pt. 240 (2015)), which became effective on May 6, 2013, see Press Release, Bd. of Governors, Fed. Reserve Sys. (Apr. 3, 2013), http://www.federalreserve.gov/newsevents/press/bcreg/20130403a.htm.

9. See, e.g., Gary S. Corner, The Changing Landscape of Community Banking, Fed. Res. Bank St. Louis: Cent. Banker (Fall 2010), http://www.stlouisfed.org/publications/cb/articles/?id=1997 (“Financial innovation over the last 30 years has changed the complexion of banking. Made possible by advances in technology, innovations such as . . . 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.”).

banks, which are classified as systemically important financial institutions (SIFIs), following the 2008 financial crisis it has become common knowledge that nonbanks could pose risks to the financial system too and thus should be better monitored. 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. 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 these companies use ascends to new heights, streams in quicker, and springs from an expanding ambit of sources and formats. Carefully gleaned insights unlock new understandings of consumer behavior that

11. 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. 12 C.F.R. § 1310.23 (2015).


13. In the case of nonbanks, section 113 of the Dodd–Frank Act left the question of designation as to which entities qualify as SIFIs to the FSOC. Dodd–Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 113, 124 Stat. 1376, 1398–1402 (2010) (codified at 12 U.S.C. § 5323 (2012)). Nonbanks 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 Wall Street Reform and Consumer Protection Act §§ 115(a), 165(i), (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. Dodd–Frank Wall Street Reform and Consumer Protection Act § 115(a)(1).

14. Thus far, such entities include American International Group, Prudential Financial, GE Capital, and Metlife. See Financial Stability Oversight Council: Designations, U.S. DEPT TREASURY, http://www.treasury.gov/initiatives/fsoc/designations/Pages/default.aspx (last updated July 27, 2015, 4:38 PM). 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 SIFI classification.

guide and inform business strategy in three aspects: (1) improving the service these platforms provide to their users, for example, better search results or a more accurate recommendation set for future purchases;\(^{16}\) (2) monetizing the data by facilitating targeted marketing of products and services, particularly customized for individual users;\(^{17}\) and (3) selling the raw unstructured data to interested parties to analyze, employ, and even sell for various purposes.\(^{18}\) Also making use of big data, social networks offer users a platform to build social relationships based on shared interests, activities, backgrounds, or real-life connections.\(^{19}\) Social networks merge big data with personal data and use that fusion for even more refined insights.\(^{20}\)

With its mobile payment service, Google Wallet, linked to users’ Gmail accounts and their profile at Google’s social network, Google+, Google offers a good example of 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,\(^{21}\) has been generally eyeing the


\(^{17}\) See, e.g., Lior Jacob Strahilevitz, *Toward a Positive Theory of Privacy Law*, 126 Harv. L. Rev. 2010, 2011, 2021–24, 2027 (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”);


\(^{21}\) Sally Davies, Duncan Robinson & Hannah Kuchler, *Facebook Targets Financial Services*, Fin. TIMES (Apr. 13, 2014, 5:07 PM), http://www.ft.com/intl/cms/s/0/0e6e0d50 -c1e0-11e3-97b9-00144feabdc0.html#axzz3CGkxtA01 (“The authorit[x]ation 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.’”).
payment industry, and in spring 2015 has officially become a major payment system. 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. 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. First, the move of certain big data and social 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 and borrow it, and some have not been shy about wanting


23. See Vindu Goel, Facebook Announces a Payments Feature for Its Messenger App, N.Y. TIMES (Mar. 17, 2015), http://nyti.ms/18XOBZG ("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.").


25. See Ingrid Lunden, Square Launches Payroll Product for Small Businesses, Pricing Starts at $25/Month, TECH CRUNCH (June 30, 2015), http://techcrunch.com/2015/06/30/square-launches-payroll-product-for-small-businesses-pricing-starts-at-25/month/ (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); Marcus Wohlsen, Square's Found a Way to Beat Banks at the Loan Business, WIRED (May 28, 2014, 6:30 AM), 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”).
to do so without ever being regulated as banks. 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, 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 would 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

26. In fall 2015, technology industry leaders Apple, Amazon, Google, Intuit, and PayPal formed Financial Innovation Now, a lobbying coalition advocating for greater innovation in financial services and more lenient regulation. See Maggie McGrath, A Peek Inside Apple, Google and Amazon’s New Capitol Hill Lobbying Coalition, FORBES (Nov. 9, 2015, 5:50 PM), http://www.forbes.com/sites/maggiemcgrath/2015/11/09/a-peek-inside-apple-google-and-amazons-new-capitol-hill-lobbying-coalition/ (“That’s what the purpose of this group is: to make sure that policymakers understand the benefits that technology is bringing to the marketplace.” (quoting Brian Peters, Executive Director, Financial Innovation Now)). Also, Moven, a major new nonbank, spelled out why it and similar companies 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.”


27. See, e.g., PHIL LEVIN, GSMA, BIG AMBITION MEETS EFFECTIVE EXECUTION: HOW ECOcash IS ALTERING ZIMBABWE’S FINANCIAL LANDSCAPE 17–18 (2013), http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/07/EcoCash-Zimbabwe.pdf; Sarah Todd, Banks’ Real Fight with Fintech: Who Owns the Customer?, AM. 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). Another useful source is Murithi Mutiga, Opinion, Kenya’s Banking Revolution Lights a Fire, N.Y. TIMES (Jan. 29, 2014), http://nyti.ms/1mjOB6l, which discusses 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 are constantly expanding their banking activities.
externality, demonstrated by the risk of systemic disruptions in the case of contagion of run events.28

After providing a detailed account of the big data and social netbanks trend, this Article discusses the regulatory framework under which nonbanks, and thus big data and social netbanks, 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, the Bank Secrecy Act and Money Transmitting, and the Electronic Fund Transfer Act. Then, we move to discuss the historic fragmentation of nonbank 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 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.29 Data is collected online from transactions, web-data trails, e-mail exchanges, videos, photos, search queries, health records, and social networking activities.30 Furthermore, as the physical world becomes an Internet of Things31


increasingly connected to data networks, data will be communicated through embedded sensors and collected from appliances, machinery, train tracks, shipping containers, power stations, and more.32 The idea behind big data is fairly simple: “At its core, big data is about predictions.”33 When enough detail about the past is gathered and intelligently analyzed, unforeseen links and correlations surface, and those connections can then prompt highly accurate predictions about the future.34 These tools have been used in virtually every field, from shopping patterns to flu outbreaks35 and students’ grades,36 from predicting when employees might be getting ready to quit37 to accurately identifying the prevalence of heart disease.38

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.39 Starting with big data platforms and then zeroing in on social networks, the next Subsection presents a comprehensive description of big data and social netbanks.
A. Show Me the Money

1. 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 big data analytics offer a vital competitive advantage, and 90% believe effective big data strategies will determine the industry leaders in the future. Indeed, smart banks can use big data to create a 360° view of each customer based on how she uses mobile or online financial services, ATMs, branch banking, and more. Examples of existing uses of big data include analyzing information about economic conditions, competitors’ rates, and individual customer behavior to determine rates that institutions should pay for deposits, as well as processing big data to understand how customers use the different bank channels. Big data also carries a significant potential to generate new income streams and business partnerships for banks. Nevertheless, “[w]hile 63% of banks globally recognise the competitive advantage that Big Data provides,” the category of “Big data analysis tools” received the highest level of dissatisfaction in a recent report on global large bank IT strategy and spending. As the use of big data is perceived not as a technology issue, but rather as a change in the mindset of how banks operate, banks are moving cautiously and adopting technology with much hesitation.

The use of big data by traditional banks raises a variety of concerns, including cybersecurity and privacy-related issues. As the

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. This Article, however, reports 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.

a. PayPal (eBay). PayPal occupies a unique place on the list. To begin with, it has been around since 1998 and cannot be claimed to be a new player in the financial sector. It was also founded to facilitate online transactions and as such exemplifies more of a bank than a big-data platform. Nonetheless, PayPal is not considered a bank from a regulatory perspective because, according to its founder, PayPal does not engage in fractional-reserve banking, as its non-disbursed funds are kept in commercial interest-bearing checking accounts. 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.

Furthermore, as opposed to banks’ belated acknowledgment of big data, PayPal has been using data analytics to help guide business strategy since 2012. Back then, PayPal launched a 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. 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. Each of PayPal’s users is given a customer genome sequence and grouped with similar peers to inform the company’s business strategy and offer a better user experience. Based on the aggregated transactional data, predictions as to customers’ spending are reportedly moving between 69% and 93% accuracy.

Today, PayPal is one of the leading online money transfer services available in more than 200 markets and serves over 173 million active registered users with a checking account or credit card information. In late 2014 it was widely reported that the successful payment platform was to split from eBay, and the split between eBay and PayPal was completed in July 2015. Nevertheless, it appears that in addition to its joint history, some link between eBay and PayPal is currently still evident in the


54. Id.


56. Id.

57. Who We Are, supra note 48.


operation of both platforms: eBay allows its members to easily pay and get paid through PayPal.  

b. Amazon. Amazon is an e-commerce site with 237 million active users worldwide. 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, the company has evolved and improved its recommender engine, cited by observers as a “killer feature.” The insights 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.” 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, wish lists, shopping-cart contents, returns and how long a cursor hovers over an item. Amazon also owns Amazon Web Services, a cloud-based computing and big data analysis resource that allows companies to cheaply rent computing time instead of setting up their own data processing centers.

Amazon first ventured into the financial services market in 2012, when it started offering business loans to its sellers, and rumors speculate that it is about to expand into individual lending

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as well.\textsuperscript{68} In 2013 Amazon launched the Amazon Payment service,\textsuperscript{69} which streamlines online purchases by enabling customers to go from browsing to buying in just a few clicks using their Amazon account information.\textsuperscript{70} Recently, the system further expanded to include recurring payments like monthly subscription fees or phone bills.\textsuperscript{71} Amazon has also begun offering installment loans to British consumers, with a new ‘pay monthly’ option on orders of more than £400.\textsuperscript{72}

c. Apple. 100 billion applications were downloaded at Apple’s app store by June 2015;\textsuperscript{73} every Apple product communicates with the Apple data warehouse on a continuous basis;\textsuperscript{74} and information collected from Siri, Apple’s iPhone intelligent personal assistant and knowledge navigator, is stored on Apple’s servers for two years.\textsuperscript{75} 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,\textsuperscript{76} it seems


\textsuperscript{70} Press Release, Amazon, supra note 69. The service has proven to be highly successful. On Cyber Monday of 2014, orders processed by businesses using Amazon Payments grew by more than 60% year-over-year. See Amazon Sellers Sold Record-Setting More Than 2 Billion Items Worldwide in 2014, BUS. WIRE (Jan. 5, 2015, 6:00 AM), http://www.businesswire.com/news/home/20150105005186/en/Amazon-Sellers-Sold-Record-Setting-2-Billion-Items#VKrzI2TF_pW.


\textsuperscript{74} Mark van Rijmenam, Will Apple Re-Invent Big Data?, DATAFLOQ (June 5, 2015), floq.to/nMP7d.

\textsuperscript{75} Robert McMillan, Apple Finally Reveals How Long Siri Keeps Your Data, WIRED (Apr. 19, 2013, 6:30 AM), http://www.wired.com/2013/04/siri-two-years/.

\textsuperscript{76} See Dave Einstein, NetApp, Google vs. Apple Maps: Big-Data Battle, Cloudy Clash, FORBES: BRANDVOICE (Oct. 3, 2012, 7:34 AM), http://www.forbes.com/sites/netapp/2012/10/03/google-apple-maps-big-data-cloud/#4dbf66c62ecb (“The battleground can be described in just two words: Big Data. Google has it; Apple is scrambling to catch
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to be safely moving in that direction.77 A few relatively recent investments demonstrate Apple’s intention to become more data-centric. In July 2014 Apple announced a partnership with IBM to create simple-to-use business apps,78 which will grant Apple access to IBM’s customers and data analytics capabilities to power enterprise apps.79 Apple has also boosted its music analytics by acquiring Semetric, an analytics service that tracks music sales, illegal downloads, and social-networking mentions.80 The acquisition of Topsy Labs, a social analytics startup specializing in identifying trending topics on Twitter and other social media networks, which has recently shut down, also signals Apple’s interest and potential intention to make sense of its big data trove.81

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.82 Apple joined other smartphone manufacturers and included in its new iPhone a new near-field communication (NFC)
chip.\textsuperscript{83} NFC is a form of contactless communication that allows compatible devices to establish communication and send information by bringing them into proximity without undergoing multiple steps to set up a connection.\textsuperscript{84} Together with a new chip called the Secure Element, which keeps payment information in an encrypted, secure system,\textsuperscript{85} 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.\textsuperscript{86} 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.\textsuperscript{87}

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 responsible for 1\% of digital payment dollars.\textsuperscript{88} 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 relatively limited list of merchants.\textsuperscript{89}

While Apple guarantees that personal shopping information will not be transferred to Apple,\textsuperscript{90} non-personal information is surely to be collected, not only from the transactions but also from

\textsuperscript{83} Id.
\textsuperscript{86} Townsend, \textit{supra} note 82.
\textsuperscript{89} Id.; see also Malarie Gokey, Here Are All the Places That Support Apple Pay, Including Two Million Stores and China, DIGITAL TRENDS (Mar. 5, 2016), http://www.digitaltrends.com/mobile/apple-pay-partners-news/ (reporting new merchants are supporting Apple Pay daily).
\textsuperscript{90} Machkovech, \textit{supra} note 85 (“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.”).
partnerships with retailers\textsuperscript{91} and banks\textsuperscript{92} to ensure the use of Apple Pay 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.”\textsuperscript{93}

2. Social Netbanks. Social network sites are gradually becoming the main channel through which individuals all over the world build and maintain their personal network online.\textsuperscript{94} The penetration numbers are impressively high—according to a recent study, 62\% of Americans twelve years or older have a Facebook account; 18\% have a personal LinkedIn page; 24\% have an Instagram account; and 18\% have a personal Twitter account.\textsuperscript{95} With over 9,100 tweets posted every second and 1 million links shared on Facebook every 20 minutes, the use of social networks is undoubtedly central to the life of many.\textsuperscript{96}

Social network sites 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.\textsuperscript{97} When joining a social network service, the user provides information to generate a unique personal profile.\textsuperscript{98} Then, she identifies others within the system as her social links via either bi-directional connection (e.g.,

\begin{thebibliography}{99}
\bibitem{Id} Id.
\bibitem{Leverage} \textit{Social Media Comparison Infographic}, \textit{LEVERAGE} (Sept. 1, 2015), https://leveragenewagemedia.com/blog/social-media-infographic/.
\bibitem{boyd2} boyd & Ellison, \textit{supra} note 97, at 211, 213.
\end{thebibliography}
Facebook friends) or one directional tie (e.g., Twitter follower). Social networks differ in their features and user base.

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.

Social networks collect and store an exceptional amount of data, most of which is spontaneously generated and hard to capture and classify. Advances in artificial intelligence research known as “deep learning” are helping social networks and their advertisers glean insights from the enormous amount of unstructured data. 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.

The advertising model revolves around users’ engagement—the more members a social network has, the more effective the

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100. boyd & Ellison, supra note 97, at 211, 213–14.


103. Id.

104. See Ganaele Langlois, Joanna Redden, and Greg Elmer, Introduction: Compromised Data—From Social Media to Big Data, in COMPROMISED DATA: FROM SOCIAL MEDIA TO BIG DATA 3–4 (Ganaele Langlois et al. eds., 2015) (describing how retailers such as Amazon analyze and use collected data to stimulate users’ responses).

105. See The Paid Social Media Advertising Report 2013, NIELSEN (Jan. 25, 2013), 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, 18 J. RETAILING & CONSUMER SERVS. 348, 350, 352 (2011) (emphasizing how important it is for retailers to incorporate social networks into their marketing strategy). Social networks also use other types of business models such as products, services, and referrals models; content sales models; freemium models; and more. See Social Network Business Models, HOW TO START A SOCIAL NETWORK, http://howtostartasocialnetwork.com/social-network-business-models/ (last visited Apr. 22, 2016). For the purpose of the social networks discussed in this Article, however, we will focus our attention on the advertisement model.
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. Nearly 76% of Internet users are actively participating in social networks, and the global social network audience is expected to total 2.55 billion by 2017. 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.

The dominance of the mobile market is instrumental in both the rising numbers of social network members and the amount of time set aside for online social engagement. Over 75% of Facebook users access the platform through their mobile device, and many social networks are either mobile-dominated (e.g., Twitter), or completely mobile-dependent (e.g., Instagram and WhatsApp). 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.”

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 capitalism, or other forms of private funding, and went public. 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;\textsuperscript{116} Facebook buying Instagram, a photo sharing application, to bolster its grip in the mobile market,\textsuperscript{117} as well as WhatsApp, a cross-platform mobile messaging application;\textsuperscript{118} and Twitter buying more than a dozen mobile advertising companies since the beginning of 2013 to augment and solidify its mobile footprint.\textsuperscript{119}

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 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.”\textsuperscript{120} Similarly to what other technology competitors have been doing in the past, social netbanks can eliminate inefficiencies and transactional friction by “eat[ing] away at the edges,” penetrating some segments of traditional banking like payments and checking accounts via prepaid cards.\textsuperscript{121} For many of those services, social netbanks could offer a more attractive alternative up to the point of relegating traditional banks to merely processing transactions.\textsuperscript{122}


\textsuperscript{117} Evelyn M. Rusli, \textit{Facebook Buys Instagram for $1 Billion}, \textit{N.Y. TIMES: DEALBOOK} (Apr. 9, 2014, 2:02 PM), http://nyti.ms/1daw3Oz. 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. Brad Stone, \textit{Facebook Buys WhatsApp for $19 Billion}, \textit{BLOOMBERG} (Feb. 19, 2014, 7:05 PM), http://bloom.bg/1PavV9X.


\textsuperscript{121} Id.

\textsuperscript{122} Id.
And while the variety of available services and the way they 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.

a. Google. Google is ranked first amongst the most visited multiplatform websites with 247 million U.S. unique visitors and a market share of 63.9% among U.S search engines. Google also owns successful social networking outlets like YouTube, the social networking service Google+, and the blog-publishing platform Blogger. Since purchased by Google in 2006 for $1.65 billion, YouTube has been crowned the most popular video platform in the world, with more than 1 billion unique visitors per month. While not as successful as other leading social networks, Google’s social networking service, Google+, has 1.15 billion registered users and invaluable access to users’ digital life and personal information. Google’s Blogger is the leading blog site in the United States, with 46 million unique monthly users.

123. Cf. Sam Thielman, Twitter Shares Hit New Low on Rumored Shift to 10,000-Character Tweets, GUARDIAN (Jan. 5, 2016, 12:55 PM), http://gu.com/p/4fh6g/sbl (describing Twitter’s efforts to keep its existing user base happy and its user expansion strategy—offering alternative news sources and enhancing the capabilities of its direct messaging service).

124. While Google is mostly associated with its search engine, products like Google+ and YouTube keep Google within the definition of a social network in terms of social connectivity and data collection. See supra text accompanying notes 97–102 (defining a social network). Thus, we regard it as a social network for the purpose of this Article.


128. See Luca Della Dora, The State of Google+, WE ARE SOCIAL (Feb. 12, 2014), http://wearesocial.com/us/blog/2014/02/state-google. Despite this larger pool of registered users, Google+ only has 358 million active users. Id.

129. Google+ 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://nyti.ms/1fnxRYc.

Crowned as “the Web’s emperor” in the big data realm, Google is, more than anything, a data collection refinery. 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. 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. 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 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 (e.g., Gmail), hardware (Galaxy Nexus), and even wireless services. 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 management of data from web-connected household appliances.

In May 2011, the tech giant unveiled its mobile payments platform, Google Wallet, intending to replace the physical items in one’s wallet. 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.\textsuperscript{138} The Wallet’s debit card is accepted at millions of MasterCard locations and can even be used to withdraw at ATMs.\textsuperscript{139} Admittedly, Google Wallet has not yet gone mainstream, but Google links it to its other extremely successful products to help further the technology acceptance.\textsuperscript{140} This is why, for example, money can now be sent and received as an attachment on Gmail.\textsuperscript{141} Google also connected its payment service to YouTube, processing donations to content creators through Google Wallet only.\textsuperscript{142} Additionally, the recent launch of Apple’s new payment platform “Apple Pay” has reportedly boosted Google Wallet’s use with weekly transactions growing by nearly 50% and a dramatic increase in the number of new users.\textsuperscript{143}

\textit{b. Facebook.} Launched in 2004 as a social network for students only,\textsuperscript{144} social networking giant Facebook now has over 829 million active users.\textsuperscript{145} With 10 billion Facebook messages exchanged daily, 4.5 billion “like” clicks per day, 17 billion total location-tagged posts and 250 billion total photos—Facebook is a “big data paradise.”\textsuperscript{146} Facebook has accumulated information on its members’ gender, age, marital and parental status, location, job, pages they like, education, political stances, pets, interests, 

\begin{itemize}
  \item \textsuperscript{140} See Todd Wasserman, You Can Now Send Money via Gmail, MASHABLE (May 15, 2014), http://mashable.com/2013/05/15/gmail-money-wallet/.
  \item \textsuperscript{141} Send & Request Money with Gmail, GOOGLE, https://support.google.com/mail/answer/3141103?hl=en (last visited Apr. 22, 2016); see also Travis Green, Send Money to Friends with Gmail and Google Wallet, OFFICIAL GMAIL BLOG (May 15, 2013), http://gmailblog.blogspot.com/2013/05/send-money-to-friends-with-gmail-and.html.
  \item \textsuperscript{142} About Fan Funding, YOUTUBE, https://support.google.com/youtube/answer/6052077 (last visited Apr. 22, 2016); see also Bertel King, Jr., YouTube Now Offers Fan Funding in Four Countries—Here’s a Look at How It Works, ANDROID POLICE (Sept. 1, 2014), http://www.androidpolice.com/2014/09/01/youtube-now-offers-fan-funding-heres -look-works/.
  \item \textsuperscript{144} Sarah Phillips, A Brief History of Facebook, GUARDIAN (July 25, 2007, 5:29 AM), http://gu.com/p/2dac/sbl.
  \item \textsuperscript{145} FACEBOOK, QUARTERLY EARNINGS SLIDES: Q2 2014, at 3 (2014), http://files.shareholder.com/downloads/AMDA-NJ5DZ/3349478089x0x770377/abc6b6d4 -df03-44e1-bb4d-7877f0c41e0/0F%20Q2.
hobbies, and even the time a user’s cursor hovers over a certain part of a page. 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. 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. In fact, it may well be the case that Facebook currently has enough detailed insights about its members to exploit for years even if all its users quit Facebook today. 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, to product development and targeted advertising.

Facebook is already authorized to facilitate certain forms of money transfer in the United States, like payments within applications, which totaled $2.1 billion during 2013. 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. Shortly after Facebook allegedly submitted its application, Credit Suisse upgraded Facebook’s stock from “neutral” to “outperform.” The expectations for higher growth, Credit Suisse said in a note to its clients, were to “layer in monetization from the

150. Donovan, supra note 147.
151. Marr, supra note 146.
155. Davies, Robinson & Kuchler, supra note 21.
156. Ryan Vlastelica, Social Media Shares Rally After Credit Suisse Upgrades Facebook, REUTERS (Apr. 22, 2014, 11:54 AM), http://reut.rs/RIJ9SS.
company’s upcoming product releases.” 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 officially became a major payment system. Facebook now enables 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.

c. **Twitter.** The prevalent microblogging platform has nearly 320 million active users, tweeting 58 million Tweets per day, in more than 35 languages. Over 100 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. Such uses include building data-powered products, training machine-learned models for promoted products, spam detection, follower recommendation, and more. Twitter also peers into the apps installed on their members’ mobile devices to have a better understanding of their users and customize their timeline with relevant content. 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. Tracking its users’ cookie ID, Twitter also matches browser-related information with a Twitter account to push tailored, promoted items into its users’ feed. In addition to collecting and analyzing data for its own interests, Twitter also has capitalized on data licensing, providing a number of certified data resellers access to the network’s masses of data. Its

157. Id.
158. See, e.g., Goel, supra note 23.
159. Id.
162. Id.
164. Perez, supra note 163.
166. Victor Luckerson, Twitter Is Selling Access to Your Tweets for Millions, TIME (Oct. 8, 2013), http://business.time.com/2013/10/08/twitter-is-selling-access-to-your-tweets-for
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.167

Now, Twitter appears to be considering entering into the financial services market as well. In a recent regulatory filing, Twitter cautioned that risks related to “credit card processing” might impose legal liability on the network.168 That statement, together with Twitter’s acquisition of CardSpring, a payment infrastructure company, grounded speculations about Twitter’s plan to become an e-commerce center.169 Those speculations were recently confirmed when Twitter introduced a “Buy” button alongside some tweets to allow an entire purchase to be completed in just a few taps.170 Shortly after, Twitter announced a new commerce feature called “Twitter Offers,” which builds on CardSpring’s card integration technology.171 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.172

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, organizations, and companies.173 While this is not another Twitter product—the French bank

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simply developed the service using Twitter’s publicly available application programming interface (API) documentation—this unique strategy may herald future attempts by other players to tap into similar data through the Internet giant’s API.\footnote{Chris O’Brien, \textit{Ready To Pay by Tweet? Here’s How New Twitter-Powered Payment Service Works in France}, VENTUREBEAT (Oct. 14, 2014, 2:17 AM), http://venturebeat.com/2014/10/14/heres-how-twitters-new-pay-by-tweet-service-works-in-france/. An API is a “large collection of ‘readymade’ programs” that “[a]pplications can use . . . to obtain various services.” SIBSANKAR HALDAR \\& ALEX A. ARAVIND, OPERATING SYSTEMS 563 (2009).}

d. \textit{Chinese Sina, Alibaba, and Tencent.} In China the link between financial services and social networks seems even stronger than the one perceived in the United States, as products that tie the two together keep emerging at a phenomenal pace.\footnote{Leesa Shrader, \textit{Killer Apps in China: Social Networks and Financial Inclusion}, CGAP (May 19, 2014), http://www.cgap.org/blog/killer-apps-china-social-networks-and-financial-inclusion.} Importantly, the use of social media for market research prior to the purchase of products and services is highly dominant in commercial life.\footnote{Id.} Against the backdrop of news and advertisements oftentimes perceived as manipulated, Chinese consumers are more inclined to purchase a product or service that is recommended on social media.\footnote{Id.}

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.\footnote{182} Supported by its payment service, SINA Payment, Sina also introduced a platform for selling high quality financial assets to individual investors directly.\footnote{183} 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.\footnote{184}

Alibaba has already moved into microfinancing 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.\footnote{185} After processing $519 billion worth of digital payments in 2013, Alipay now successfully presents a bundle of mobile financial offerings, including a savings bank, wire service, and investment house,\footnote{186} and is moving steadily toward occupying the economic position of a bank.\footnote{187} 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.\footnote{188} The coming Alibaba bank is expected to use the same credit rating system.\footnote{189} Furthermore, Alibaba launched a stock market index based on its collected data.\footnote{190} The index ranks industries based on the growth in their Alipay

\begin{footnotes}
\footnote{182}{C. Custer, \textit{Looking to China’s Personal Finance Market, Sina Gets into Online Banking}, \textit{Tech in Asia} (July 18, 2013, 9:04 PM), http://www.techinasia.com/inspired-paypal-sina-weibo-online-banking/}.
\footnote{184}{Id.}
\footnote{188}{McMahon & Mozur, \textit{supra} note 24; Shrader, \textit{supra} note 175}.
\footnote{190}{Steve Johnson, \textit{Alibaba Pushes into Investment World}, \textit{Financial Times} (Jan. 18, 2015, 4:43 AM), http://www.ft.com/cms/s/0/9a0c3184-9d6e-11e4-8946-00144feabdc0.html.}
\end{footnotes}
transactions and accordingly calculates individual stock positions.191

Another software and gaming giant, Tencent, owns the popular social network WeChat.192 WeChat has 438 million monthly active users worldwide193 that during peak hours exchange more than 10 million messages per minute.194 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.”195 Users are marked with an “OpenID” that follows them through their future interactions with the brand.196

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.197 In January 2014 Tencent launched an investment platform called Li Cai Tong, which allows WeChat users to send money directly to a fund run by China Asset Management, a mutual fund manager.198 A year later Tencent introduced China’s first online-only bank, WeBank.199 Similarly to

191. Id.


194. Fuhrman, supra note 192.


197. Shrader, supra note 175.


Alibaba, Tencent also intends to use its big data advantage to evaluate credit risk of small borrowers.200

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, the underserved population, both unbanked and underbanked, will likely use the networks’ services: the unbanked are individuals with no official relationship with a bank, and the 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.201 The financially underserved community is a well-known global issue. According to a 2012 report by the World Bank’s Global Financial Inclusion Database, 75% 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.202 In the United States the numbers are fairly high as well, with roughly 10.5% of the American population considered unbanked and about 16.9% being underbanked.203 This means that in 2013 a relatively large number of households lived at least partially outside the financial mainstream.204

200. Id.


204. Id.
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 the unbanked and underbanked. The underserved community makes significant use of mobile phones and smartphones: 69% of the unbanked have access to a mobile phone, 49% of which are smartphones, and 88% of the underbanked use mobile phones, 64% of which are smartphones. Some of this mobile use is channeled to financial activities: nearly 40% of the underbanked with mobile phones reported using mobile banking in 2013. Mobile technology, therefore, has not only revolutionized access to broadband connectivity, but has also facilitated and may 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. According to Twitter, this partnership “can make great content more accessible to everyone.” 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. 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. Both companies acquired drone startups to promote their Internet delivery

205. Id.
206. Id.
207. See Kemp, supra note 107 (“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. . . . [T]he 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 . . . .”).
209. Id.
projects,212 and Facebook’s Internet.org app was recently launched in Zambia with free data access to a small number of services including Facebook, Messenger, Wikipedia, and Google Search.213 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 time 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 fin–tech startups are driving change in the financial services industry.214 Additionally, while historically banks dominated financial services, recent scandals, such as the Libor rate rigging, harmed banks’ reputations.215 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.216

212. Josh Constine, Facebook Will Deliver Internet via Drones with “Connectivity Lab” Project Powered by Acquires from Ascenta, TECH CRUNCH (Mar. 27, 2014), http://techcrunch.com/2014/03/27/facebook-drones/; Darrell Etherington, Google Acquires Titan Aerospace, the Drone Company Pursued by Facebook, TECH CRUNCH (Apr. 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 globe in cheap, omnipresent Internet connectivity to help bring remote areas online.”).


A recent study revealed that American millennials increasingly regard banks as irrelevant and on a brink of disruption.217 Half of those surveyed believe startups will overhaul the way banks work and that innovation will come from outside the banking industry.218 Importantly, 73% would reportedly be more excited to have their financial services provided by Google, Amazon, Apple, PayPal, or Square than by their own mainstream banks.219 Another study found that 72% of consumers eighteen to thirty-four years old would be likely to bank with major technology players if they offered financial services.220 The same response was given by 55% of consumers thirty-five to fifty-four years old, and by 27% of those fifty-five years old and older.221

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.222 Internet and retail companies like Amazon and Google, which utilize highly targeted marketing, have raised customers’ expectations,223 while traditional banks appear to have lagged behind in adapting to the new fast paced online world, concerning business as well as regulation.224 The Federal Financial Institutions Examination Council (FFIEC) has just recently finalized its guidelines for financial institutions on approved uses of social media,225 and banks are now gradually


218. SCRATCH, supra note 217.

219. Id.


221. Id.


starting to communicate with their customers in social networks.226 Fearful of violating the new rules, banks treat online interactions with extra caution and sometimes as a result often appear distant and even robotic.227 The failure to meet their customers’ expectations and to quickly adapt to new technology entrants could be disruptive for banks.228 Technology companies are well aware of this reality and are progressively moving into the digital financial products and services market.229 Many in the mainstream banking industry are watching this trend with great concern, considering those tech platforms to be banks’ new competition.230 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 33% of traditional bank revenues.231

III. DIGITAL NONBANKS

A. Statutory Financial Regulation of Nonbanks

In the present financial architecture, financial services and products are increasingly provided outside of the traditional banking system.232 This shift, referred to as “disintermediation” and also described as creating a “shadow banking” system, has fundamentally transformed finance.233 Historically, regulators in


228. ACCENTURE, supra note 220, at 4–5.

229. Salmon, supra note 224.


232. ACCENTURE, supra note 220, at 4. See generally Steven L. Schwarz, Regulating Shadows: Financial Regulation and Responsibility Failure, 70 WASH. & LEE L. REV. 1781, 1797–98 (2013) (describing that most corporate financing, for example, is no longer dependent on bank loans but is raised through special purpose entities, money market mutual funds, securities lenders, hedge funds, and investment banks).

233. Schwarz, supra note 232, at 1797–98. Arising during 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 United States 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. Indeed, presently there are thousands of nonbank businesses that offer financial products and services, but while banks, thrifts, and credit unions have always been subject to federal regulations, most nonbanks have not—until recently.

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.” 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. Faced with more and more...
nonbanks that are performing bank-like services, this trend requires regulatory attention and supervision. Nevertheless, even at present time, regardless of their legal classification, all entities that offer bank-like services are already subject to some regulation, as further outlined and discussed below.

1. 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 established the CFPB on July 21, 2010. Under the Dodd–Frank Act, the Bureau has supervisory authority over nonbank covered persons providing three main types of consumer financial products or services: (1) mortgage loans—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.

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. As of

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.

eBay, Inc., supra; see also Mehrsa Baradaran, Reconsidering the Separation of Banking and Commerce, 80 GEO. WASH. L. REV. 385, 423 (2012) (“PayPal allows small traders to receive credit card payments or money wires and serves as a repository for deposits by buyers.”).


240. 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) (2012).

241. 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 C.F.R. § 1091 (2015) (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 authority relating to the supervision of other depository institutions and credit unions. 12 U.S.C. § 5516(a), (c)(1), (e).

242. See CFPB Supervision Report Highlights Risky Practices in Nonbank Markets, CONSUMER FIN. PROTECTION BUREAU (May 22, 2014), http://www.consumerfinance.gov/newsroom/cfpb-supervision-report-highlights-risky-practices-in-nonbank-markets/ [hereinafter CFPB Supervision Report] (“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.”).

summer 2014, the Bureau has issued rules to supervise the larger participants in the debt collection,\textsuperscript{244} consumer reporting, and student loan servicing markets.\textsuperscript{245}

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.”\textsuperscript{246}

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.”\textsuperscript{247} 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.\textsuperscript{248} 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.\textsuperscript{249} It also prioritizes supervisory activity at nonbank covered persons on the basis of risk.\textsuperscript{250} 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.\textsuperscript{251}

\textsuperscript{244}. The debt collection market was of special concern 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.” \textit{CFPB Supervision Report}, supra note 242.

\textsuperscript{245}. \textit{See} 12 C.F.R. § 1090 (2015).


\textsuperscript{248}. 12 U.S.C. § 5514(b)(1).

\textsuperscript{249}. 12 U.S.C. § 5514(b).

\textsuperscript{250}. 12 C.F.R. § 1090.

The Dodd–Frank Act enables the CFPB to pursue its regulatory goals by carrying out relevant federal financial laws. Accordingly, the CFPB’s work is critical in the context of nonbanks regulation and includes: (1) writing rules and overseeing relevant companies to which such laws may concern, including enforcing on them federal consumer financial protection laws; (2) restricting unfair, misleading, or abusive acts or practices; (3) recording and collecting consumer complaints; (4) advancing financial education; (5) studying consumer behavior; (6) monitoring financial markets for new risks to consumers; and (7) enforcing laws that prohibit discrimination and other unfair practices in consumer finance.

2. Bank Secrecy Act and Money Transmitting. A money transfer business refers to a business entity that provides money transfer services or payment instruments. Businesses, including nonbanks, are required by law to register for a Money Transmitter license where their activity falls within the state and federal definitions of a money transmitter. There are two distinct money transmitter regulatory schemes to consider, each with different purposes. Under the first regulatory scheme, businesses must comply with the federal Bank Secrecy Act (BSA), as modified in 2001 by the Patriot Act. Under the regulation, Money Services Businesses (MSBs)—which include, inter alia, (1) money transmitters; (2) check cashers; (3) issuers, sellers, and redeemers of money orders or travelers checks; and (4) providers of prepaid access—are subject to registration and other requirements. All MSBs are required to register with the Financial Crimes Enforcement Network (FinCEN) and have effective anti-money-laundering (AML) programs in place. MSBs

252. 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 About Us, CONSUMER FIN. PROTECTION BUREAU, http://www.consumerfinance.gov/the-bureau/ (last visited Apr. 22, 2016).

253. Id.


256. See Peterson, supra note 51.

257. Bank Secrecy Act, 31 U.S.C. § 5311. 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. See 31 C.F.R. § 1010.100(ff) (2015).

258. 31 C.F.R. §§ 1010.100(ff), 1022.200, .380; see also Peterson, supra note 51 (“Not all prepaid schemes are covered under the rules . . . . If a prepaid scheme is covered under the rules, the entity in the program that has principal oversight and control . . . . must register with the Department of Treasury Financial Crimes Enforcement Network . . . .”).
are also required to keep for five years (1) customers' identifying information records; and (2) “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.” Moreover, MSBs must report suspicious transactions over certain amounts. Under the second regulatory scheme, businesses must comply with state money transmitter licensing requirements, which typically have a consumer protection purpose but also require AML compliance.

MSBs are subject to a high level of scrutiny. 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’s operation.

Internet-based payment services must also obtain a state money transmitter license in order to be able to offer services to

259. Peterson, supra note 51.
260. Id.
261. M. MacRae Robinson, Easing the Burden on Mobile Payments: Resolving Current Deficiencies in Money Transmitter Regulations, 18 N.C. BANKING INST. 553, 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. See id.

262. See Joint Statement on Providing Banking Services to Money Services Businesses, FIN. CRIMES ENFORCEMENT NETWORK (Mar. 30, 2005), http://www.fincen.gov/statutes_regs/guidance/html/basmsbrevisedstatement.html [hereinafter FinCEN Joint Statement] (“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.”).

263. 31 C.F.R. § 1022 (describing additional penalties for compliant MSBs when the other MSB involved in the transaction is operating out of compliance).

residents of that state.\textsuperscript{265} 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.\textsuperscript{266}

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 regulation interpretation.\textsuperscript{267} Apple Pay,\textsuperscript{268} Google Wallet,\textsuperscript{269} Softcard (previously ISIS Wallet),\textsuperscript{270} Square Wallet,\textsuperscript{271} and LevelUp\textsuperscript{272} are all examples of services that would qualify as enabling online payments under state law.\textsuperscript{273} Indeed, while the business models differ, such platforms effectively allow merchants to accept payments from customers and individuals to send payments directly through their mobile phone or tablet.\textsuperscript{274} 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.275

3. Electronic Fund Transfer Act. Similarly to money transmitters, remittance institutions, which can include nonbanks, are also regulated by federal law and are specifically covered by Regulation E, which implements the Electronic Fund Transfer Act and focuses on consumers who send money electronically to foreign countries.276 A remittance transfer is an electronic transfer of money from a consumer in the United States to an individual or an entity in a foreign country.277 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.278 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 payments.279 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.280

4. Commercial Firms Owning Banks. Commercial firms, which are nonbanks, can own an FDIC-insured depository

275. See id.
277. See 12 C.F.R. § 1005.30(c) (defining a “designated recipient” as “any person specified by the sender as the authorized recipient of a remittance transfer to be received at a location in a foreign country”).
institution by either owning a single thrift as a unitary thrift holding company, which can engage in any business enterprise if it meets specific activity restrictions,281 or owning an industrial bank.282 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 institutions.

5. Truth in Lending Act. The Truth in Lending Act (TILA)283 and Regulation Z, which implements it,284 administer open- and closed-end credit transactions. These include, for example, credit cards, as the regulation is relevant to “each individual or business that offers or extends credit” (1) 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.285 The Credit Card Accountability Responsibility and Disclosure (CARD) Act of 2009, which amended TILA, is designed to permanently alter the relationship between consumers and their credit cards.286 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.287 Accordingly, the CARD Act added a number of specific consumer protection provisions providing for enhanced consumer disclosures, creating specific protections for young consumers, and addressing gift cards and other miscellaneous issues. Aiming to curb illegal and deceptive credit card practices, the CFPB interprets and executes TILA whenever

281. Baradaran, supra note 238, at 422–23 & n.210 (“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.”).

282. Id. at 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 1: The Likely Outcome of Eliminating the Barrier, 93 FED. RES. BANK ATLANTA ECON. REV., no. 1, 2008, at 1, 9–10, https://www.frbatlanta.org/research/publications/economic-review/2008/vol93no1 LikelyOutcomeOfEliminatingTheBarrier.aspx.


285. 12 C.F.R. § 1026.1(c).


necessary, including in the context of nonbanks’ business activities.\textsuperscript{288}

6. The Equal Credit Opportunity Act. The Equal Credit Opportunity Act (ECOA) and the regulation that implements it apply to all the business entities that extend credit, including nonbanks, and are intended to prevent discrimination against applicants for consumer credit.\textsuperscript{289} “When originally enacted, ECOA gave the Federal Reserve Board responsibility for prescribing the implementing regulation.”\textsuperscript{290} But the Dodd–Frank Act transferred this authority to the CFPB and granted it rule-making authority under ECOA.\textsuperscript{291} “In January 2013, the CFPB amended Regulation B to reflect the Dodd–Frank Act amendments 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.”\textsuperscript{292}

7. Gramm–Leach–Bliley Act and the Fair Credit Reporting Act. Title V of the Gramm–Leach–Bliley (GLB) Act governs the privacy of customer information held by a financial institution.\textsuperscript{293} For purposes of applicability, the GLB Act defines a financial institution as 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.”\textsuperscript{294} 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.\textsuperscript{295}

Similarly, the Fair Credit Reporting Act (FCRA) is based on the notion that the “banking system is dependent upon fair and


\textsuperscript{291} Id.

\textsuperscript{292} Id.


\textsuperscript{294} Id. § 509(3)(A).

accurate credit reporting.”\textsuperscript{296} FCRA generally requires a consumer-reporting agency (CRA) to notify a furnisher when a consumer disputes the accuracy or completeness of a piece of information offered by the furnisher to the CRA.\textsuperscript{297} The CRA must also promptly provide the furnisher “all relevant information regarding the dispute.”\textsuperscript{298} “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.\textsuperscript{299}

8. 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 because there is no consistent international payments law. As described above, in the United States payments and cards are regulated through a combination of federal regulations and nonuniform state laws. In the global arena, however, the lack of uniformity and certainty is even worse because different countries have different rules. For example, under the European Union member state regulations, which were issued pursuant to the E-Money and Payment Services Directives, licensed nonbanks may provide their services throughout the European Union if they have properly “passported” their license wherever they wish to do business.\textsuperscript{300}

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 with, among other things, financial services

\textsuperscript{298} Id.
\textsuperscript{300} Jon Kutner, Passports, E-Money and Payments Services, PAYMENTS TALK (Jan. 23, 2013), http://www.paymentstalk.com/2013/01/23/passports-e-money-and-payments -services/#sthash.Qvk72c9.dpuf; see also E-Money, EUR. COMMISSION, http://ec.europa.eu /internal_market/payments/emoney/index_en.htm (last updated Mar. 16, 2016) (“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.”). Facebook has applied for such an e-money license recently. See Davies, Robinson & Kuchler, supra note 21.
regulation, was delivered to the U.S. Senate Committee on Homeland Security and Government Affairs with several recommendations.\footnote{U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-14-496, VIRTUAL CURRENCIES: EMERGING REGULATORY, LAW ENFORCEMENT, AND CONSUMER PROTECTION CHALLENGES (2014), http://www.gao.gov/assets/670/663678.pdf.} 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.\footnote{Id. at 11.}

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.\footnote{See 12 U.S.C. § 5514(a)(1)(C) (2012).} Doing so, the Bureau has published a rulemaking agenda and releases semi-annual updates to its agenda. 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.\footnote{Supervision of Larger Participants in Installment Loan and Vehicle Title Loan Markets, OFF. INFO. & REG. AFF., http://www.reginfo.gov/public/do/eAgenda ViewRule?pubId=201510&RIN=3170-AA07 (last visited Apr. 22, 2016).} 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.\footnote{Shea Bennet, \textit{How Social Media Brings Power to the People}, SOC. TIMES (Aug. 28, 2012, 8:00 AM), http://www.adweek.com/socialtimes/social-power-people/469059?red=at.} Specifically, as noted above, in the United States ninety percent of the population owns cellphones—with more than sixty percent of those owners using smartphones that are connected to the Internet.\footnote{See Mobile Technology Fact Sheet, PEW RES. CTR., http://www.pewinternet.org/fact-sheets/mobile-technology-fact-sheet/ (last updated Oct. 2014).} These statistics indicate to the CFPB that online banking is probably not just a phenomenon but an increasingly growing trend.\footnote{See, e.g., John Adams, \textit{Square Enters Banks’ Turf by Pushing Past Payments}, PAYMENTS SOURCE (May 28, 2014), http://www.paymentssource.com/news/square-enters -banks-turf-by-pushing-past-payments-3018025-1.html (“Square, which built its business on the simplicity of its plug-in payment device, is piling on services that should make banks and other companies take notice.”); Solon Harmony B. Dolor, \textit{Facebook Inc (FB) Financial Service Might Make Me Buy: Kevin O’Leary}, TECH INSIDER (June 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 to}
notice that it intends to consider both “the opportunities and challenges” relevant to mobile financial services.\textsuperscript{308} The CFPB plans to mainly focus “on the trend’s impact upon the underbanked and underserved population,” and “the potential to provide access to banking services for those traditionally shut out.”\textsuperscript{309} The CFPB has decided to do so because its task is 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.\textsuperscript{310} Among the areas of interest that the CFPB is collecting information on are: (1) access for the underserved, (2) real-time money management, (3) customer service, and (4) privacy concerns and data breaches.\textsuperscript{311}

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; therefore, the CFPB’s scope of supervision needs to be carefully defined in order to avoid problematic overlap issues. Indeed, “because mobile 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.”\textsuperscript{312}

Specifically, the overlap results from the fact that several bodies, such as the FTC and FinCEN, could also claim an interest


\textsuperscript{310.} Id.; see also Implementing Wall Street Reform: Enhancing Bank Supervision and Reducing Systemic Risk: Hearing Before the S. Comm. on Banking, Hous., & Urban Affairs, 112th Cong. 69 (2012) (statement of Richard Cordray, Dir., Consumer Fin. Prot. 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.”).


in policing online nonbanks and mobile payments.\(^{313}\) Similarly, while clearly much less relevant, two more authorities could also argue to have stakes in the regulation of online nonbanks and mobile payments—the FCC, which is the main federal agency that regulates interstate and international communications,\(^{314}\) and state public utility commissions, which regulate utilities that provide essential services.\(^{315}\)

Acknowledging this problematic jurisdictional overlap 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.\(^{316}\) This is because the CFPB is a newer agency that seeks to “restrict unfair, deceptive, or abusive acts or practices.”\(^{317}\) 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.\(^{318}\)

The overlap in the jurisdiction of several regulators is problematic because 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),\(^{319}\) should predominate the regulatory environment.

\(^{313}\) Seeger, supra note 312.
\(^{315}\) Such services include energy, telecommunications, water, and transportation utilities. For more on the work of a nonprofit organization dedicated to representing state public service commissions who regulate utilities, see About NARUC, NAT’L ASS’N REG. UTIL. COMMISSIONERS, http://www.naruc.org/about-naruc/about-naruc/ (last visited Apr. 22, 2016).
\(^{317}\) About Us, supra note 252.
\(^{318}\) See James Stacey Taylor, The Consumer Financial Protection Bureau Is Plagued by Internal Problems, FORBES (Oct. 3, 2013, 8:00 AM), http://www.forbes.com/sites/realspin/2013/10/03/the-consumer-financial-protection-bureau-is-plagued-by-internal-problems/#753e7531163 (“The agency . . . stunts its own investigations by refusing to set formal timelines for investigations. For businesses, this stunts their ability to operate; it’s impossible to know here they stand in regards to the law.”).
\(^{319}\) NCUA is an independent federal agency that charters and supervises federal credit unions and insures savings in federal and most state-chartered credit unions. NAT’L CREDIT UNION ADMIN., HOW YOUR ACCOUNTS ARE FEDERALLY INSURED (2014), https://www.ncua.gov/legal/guidesetc/guidesmanuals/ncuahowyouracctinsured.pdf.
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 federal regulation.320 Third, two government entities, the CFPB and the FTC, currently assume concurrent responsibility of online nonbanking consumer protection.321 Indeed, according to the Electronic Fund Transfer Act, the CFPB has authority to regulate both consumers and financial institutions engaged in electronic funds transfers in order to protect against fraudulent and unauthorized transactions.322 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.323 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.324

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.325 In retrospect, it is now clear that in 2008 the existing overly complex and blurred structure of overlapping responsibilities that many federal

320. See FTC, PAPER, PLASTIC . . . OR MOBILE? 3 n.14 (2013), http://www.ftc.gov/os/2013/03/130306mobilereport.pdf (“State governments also have broad jurisdiction over companies in the mobile payments ecosystem.”).

321. 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) (2012) (establishing power to regulate unfair or deceptive practices); 15 U.S.C. § 57a(a) (bestowing authority upon the FTC to establish rules and policies regarding unfair or deceptive acts or practices). As part of its efforts concerning online practices, it helped create comprehensive privacy programs to protect consumers’ private information. See FTC, supra note 320, at 6.


323. See 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 Section 1005.6(b)(1)-(3) will govern the transaction).


financial regulatory agencies had over the financial markets led to “some dysfunctional competition and lack of clarity for businesses.”326 And while the Dodd–Frank Act attempted to make the financial regulatory structure clearer, some argue that it only made things worse.327

Finally, as the jurisdictional 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 systems.328 The decision to subject any 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.329 Indeed, the determination of whether an entity is required to register is based on the facts and circumstances of each individual entity.330 An example of such growing uncertainty “is the increased use of mobile carrier billing—the funding mechanism whereby mobile payment systems or other third parties agree to bill the consumer’s account with the mobile carrier.”331 Presently, many mobile wallet services allow for carrier billing, but there is insufficient federal regulation to regulate this kind of billing. This vacuum forces consumers to “rely on voluntary safeguards provided by the mobile payment businesses or mobile

326. Id.; see Norbert J. Michel, The Financial Stability Oversight Council: Helping to Enshrine “Too Big to Fail,” HERITAGE FOUND. (Apr. 1, 2014), http://www.heritage.org /research/reports/2014/04/the-financial-stability-oversight-council-helping-to-enshrine-too -big-to-fail (“U.S. financial market regulation has long consisted of multiple agencies with overlapping responsibilities, particularly with respect to banks.”); see also id. (“Because virtually all banks participate in the federal deposit insurance system, the FDIC is the primary federal regulator for state-chartered banks that are not members of the Federal Reserve System. All state-chartered banks are also regulated by their respective state banking agencies. This description only scratches the surface of regulatory overlap, especially with respect to bank and financial holding companies. Complicating matters even more is the fact that all publicly traded companies are regulated by the Securities and Exchange Commission (SEC).”).

327. See Michel, supra note 326 (“The Financial Stability Oversight Council [established by the Dodd–Frank Act] is not in charge of any of these agencies, and its responsibilities only complicate what is already a tangled mess of federal and state regulatory agencies.”).

328. Id.


330. See 31 C.F.R. § 1010.100(f)(3)(ii) (2015) (“Whether a person is a money transmitter as described in this section is a matter of facts and circumstances.”).

331. Robinson, supra note 261, at 563.
IV. REGULATING BIG DATA AND SOCIAL NETBANKING

The growing interest and stronger grip of online platforms in financial services have already become noticeable. The gradual invasion of nonbanks into the financial services market has started to capture the attention of major financial institutions and banks that have expressed concerns about this expanding and unregulated sub-industry. Simultaneously, this growing interest has also started to capture the attention of regulators, who started discussing the need to examine some of the alternative payment methods, especially the activities of online and mobile nonbanks. 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 “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.”

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.”

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

332. Id.; see also FTC, supra note 321, at 7–8.
334. 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) (“The [FDIC] recently opined that [Stored Value Products] are access devices and as such are very similar to traditional payment mechanisms . . . and should be assessed for regulation under the FDIC [to determine] whether the funds underlying [them] are ultimately deposited in a financial institution.”).
336. Id. at 718.
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.

A. Regulatory Considerations for Big Data and Social Netbanks

1. 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; some use the traditional banking system, some come from geographic areas where it is very difficult to get traditional banking services, and some come from low socioeconomic backgrounds that make it virtually impossible for them to get financial services from more established financial entities. 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,


338. Cf. CAPGEMINI, SOCIAL BANKING: LEVERAGING SOCIAL MEDIA TO ENHANCE CUSTOMER ENGAGEMENT 18 (2014), https://www.capgemini.com/resource-file-access/resource/pdf/social_banking_leveraging_social_media_to_enhance_customer_engagement.pdf (“With the increasing global usage of social media, particularly in emerging markets, banks are making efforts to leverage this medium to reinforce and strengthen customer engagement.”).

339. See JEFF CHESTER & EDMUND MIERZWINSKI, BIG DATA MEANS BIG OPPORTUNITIES AND BIG CHALLENGES 2 (2014) (noting the advantages and disadvantages underbanked citizens have in relation to mobile payments).
big data already exploits information gathered on consumer vulnerabilities.\textsuperscript{340}

2. 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 firms’ ability to target advertising accurately to specific consumers, and to use consumer information to personalize the content of the advertising.”\textsuperscript{341} Naturally, big data and social networks are able to do so by using information collected on their users’ 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.\textsuperscript{342} Big data represents one of the most interesting and relevant privacy challenges of our time.\textsuperscript{343} When rightly mastered, big data increases the amount and scope of personally identifiable information.\textsuperscript{344} When poorly applied, it has been argued that big data can even erroneously drive decisions that would impact a person’s life.\textsuperscript{345} Importantly, it is virtually impossible to forecast when an algorithm will generate personally identifiable information and when an appropriate privacy safeguard is due.\textsuperscript{346} 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.\textsuperscript{347}

\textit{a. Social Networks—Mixing Business With Pleasure?} In modern times, most retail companies and nonbanks offering

\textsuperscript{343} Strahilevitz, \textit{supra} note 17, at 2021.
\textsuperscript{344} Kate Crawford & Jason Schultz, \textit{Big Data and Due Process: Toward a Framework to Redress Predictive Privacy Harms}, 55 B.C. L. Rev. 93, 98 (2014).
\textsuperscript{345} Id. at 101.
\textsuperscript{346} Id. at 98–100. Target sending baby-related coupons to a pregnant teenager, who at the time had not disclosed her pregnancy to her parents, exemplifies this point. See Charles Duhigg, \textit{Pssst, You in Aisle 5}, N.Y. Times Mag., Feb. 19, 2012, at 36.
\textsuperscript{347} Natasha Singer, \textit{With Little Data, Study Identifies ‘Anonymous’ People}, N.Y. Times (Jan. 29, 2015, 2:01 PM), http://nyti.ms/1CQextL.
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.348 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 using both data and analytics to drive revenue generation . . . as well as to drive better risk decisions.”349 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.350

b. 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.351 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.”352 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.353 Critics also submit that this ambiguity might leave applicants unfairly denied.354 But while it is disturbing that

349. Id.; see also The Financial Brand on Big Data, supra note 40 (“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.”).
352. MAYER-SCHÖNBERGER & CUKIER, supra note 33, at 195.
353. Id. at 152–53 (noting that much of the big data generated includes personal information); Calonia, supra note 351 (finding the potential for discrimination and lack of regulation concerning when lenders leverage social media to determine whether or not to approve a loan).
354. See Calonia, supra note 351 (“Social media has no place in loan underwriting . . . . Facebook is social media, not economic media. A person’s friends and opinions have no bearing on their creditworthiness.” (quoting Greg Meyer, Cmty. Relations Manager, Meriwest Credit Union)).
the friends one connects with on her 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.355 Doing so would prejudice individuals’ desire to determine the development of 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.”356

In general, advocates of this right believe that since information on the Internet is never really forgotten and carries significant risks to a data subject if used out of context, the threat of harm is ominous, especially when the information becomes available without a subject’s consent.357 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 th[e] purposes [for which they were processed] and in the light of the time that has elapsed.”358 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 they 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.359 For now, discussions on the legitimacy of this right,

355. See supra text accompanying notes 170–95.
356. See Alessandro Mantelero, The EU Proposal for a General Data Protection Regulation and the Roots of the ‘Right to Be Forgotten,’ 29 COMPUTER L. & SECURITY REV. 229, 230 (2013); see also Alexander Tsesis, The Right to Erasure: Privacy, Data Brokers, and the Indefinite Retention of Data, 49 WAKE FOREST L. REV. 433, 435 (2014) (“While businesses have legitimate reasons to use data in their day-to-day operations, a statutorily defined expiration period is necessary to preserve the data subjects’ dignitary and autonomy rights.”).
which is a fairly new one, have not yet resulted in concrete conclusions about its status, mainly due to the vagueness of the concept. Either way, regulators must make allowances for big data and social netbanks’ assessment of one’s financial reputation based on her past conduct as reflected by her online activities.

c. 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. The 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. 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:

Think 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.

Similarly, the “Internet term ‘doxing’ refers to the leaking of sensitive personal information . . . . [I]n reality, the way commerce deemed artistic, journalistic, or literary, it leaves the determination of what constitutes an exception to the entity in charge of its removal (i.e., Google or Facebook). Furthermore, it penalizes companies for noncompliance. This has the potential to forcefully transform the role of these Internet companies from hosts to censors. . . . [The Yahoo and Google] cases exemplify the potential chilling effect the Right to Be Forgotten may have on individuals around the world.).

360. Peter Fleischer, Foggy Thinking About the Right to Oblivion, PRIVACY . . . ? BLOG (Mar. 9, 2011), http://peterfleischer.blogspot.co.nz/2011/03/foggy-thinking-about-right-to-oblivion.html; see also Rosen, supra note 359, at 92 (“[T]he regulation may be further refined over the next year or so, as the European Parliament and the Council of Ministers hammer out the details.”).


362. See id. (“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.”).

363. Broughton on Apple Pay, supra note 12.
is conducted today requires consumers to dox themselves constantly.\textsuperscript{364} After all, as recently explained by an industry specialist, the only right person to monetize her own data should be the individual consumer.\textsuperscript{365}


a. Interpersonal Connections’ Effects. Consumers go through several steps in the decision-making process. These steps include need recognition, information search, evaluation, decision, and post-purchase evaluation.\textsuperscript{366} And while personal recommendations have always played a central role in financial decision-making, pre-social networks and word of mouth recommendations just did not travel very far.\textsuperscript{367} Nowadays, many of these recommendations are happening online, and social media enables word of mouth to reach millions of consumers.\textsuperscript{368} People use social media to share their experiences, reviews, information, advice, warnings, tips,\textsuperscript{369} and even personal health-related decisions, such as the desire to become an organ donor.\textsuperscript{370} These social displays result in peer influence for others to do likewise.\textsuperscript{371} One study shows that 72% of consumers trust online reviews as much as personal recommendations,\textsuperscript{372} and another shows 78% of

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\textsuperscript{365} Id.


\textsuperscript{368} Id.


\textsuperscript{371} Id.

\textsuperscript{372} Myles Anderson, Study: 72% of Consumers Trust Online Reviews As Much As Personal Recommendations, SEARCH ENGINE LAND (Mar. 12, 2012, 10:00 AM), http://searchengineland.com/study-72-of-consumers-trust-online-reviews-as-much-as-personal-recommendations-114152.
consumers are influenced by posts made by companies they follow on social media.373

Accordingly, companies and financial service providers understand social media is the new gold standard for customer-centric marketing; therefore, they may try to improve reviews on their products.374 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.375 Therefore, any regulation of big data and social netbanks 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 requirements376—in the context of big data and social netbanks.

A different possible abuse of interpersonal connections is the ability of big data and social netbanks 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.377 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, would be free of genetically modified organisms.378 Social media

outlets were also instrumental in political uprisings around the world, such as those leading to the Arab Spring. In another famous protest that utilized social networks and tech platforms to spread 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. 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. 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.

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 psychological experiments, Facebook manipulated the news feeds of 689,003 users to assess the effects on their emotions. This power, in the context of big data and social netbanks, can be immensely destructive if abused.

b. Social Shaming. Using applications and online lending services, several startups have been relying on social networks to collect relevant information on users and factor in that data when deciding to allow or deny financial services. LendUp, which is one of those companies and a direct lender that uses big data to

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381. Id. at 209.

382. Id. at 239.


analyze risk, 385 “views an active social media life as an indicator of stability.” 386 Another U.S.-based lender, Neo, 387 looks at the number and nature of an applicant’s LinkedIn connections to co-workers to determine whether a claimed job is real, and it also calculates the quality and quantity of a user’s LinkedIn contacts to determine how quickly a laid-off debtor will be rehired. 388 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. 389 Hong Kong-based Lenddo, which provides small loans to borrowers in developing countries, scrutinizes applicants’ connections on Facebook and Twitter. 390 Finally, Kreditech, a German microloans provider operating in Poland, Russia, Spain, Mexico, and the Czech Republic, also uses social data to establish creditworthiness. 391

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, similar 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, social activity, and 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 also maintained that the information is true.

c. Cyber-Bullying. The story of Amanda Todd, a fifteen-year-old who hung herself after she was bullied online, is just one of many awful cyberbullying stories. With the number of children who are victims of cyberbullying constantly rising, cyberbullying constitutes a major threat to the safety of many. As cyberbullies must abuse a social platform to be effective, if

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392. In Bangladesh, the model of “solidarity lending,” which uses social collateral as risk minimizers in lending, has been gaining traction: “Bangladesh’s Grameen Bank, for example, provides microloans and uses a person’s community to help ensure loan payments are fulfilled. As part of the loan process, borrowers are put into a five-member group. Although the individual borrower is solely responsible for repayments, the group’s awareness of the person’s financial responsibility has led to strong payback rates of 98%, according to the Grameen Foundation.” Rachel Barron, Can the U.S. Improve Financial Services for the Poor Using Lessons from Developing Countries?, GUARDIAN (Oct. 23, 2015), http://www.theguardian.com/sustainable-business/2015/oct/23/unbanked-m-pesa-kenya-vodafone-vouch-opportun.

393. 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 United States as freedom of speech, which was paramount, and so the presumption of truthfulness eventually became the cornerstone of American libel law. See, e.g., N.Y. Times Co. v. Sullivan, 376 U.S. 254, 279–80 (1964) (changing common law doctrine and practice in the United States); People v. Croswell, 3 Johns. Cas. 337, 389–94 (N.Y. Sup. Ct. 1804) (establishing truth as a defense to criminal libel in the United States); Russell L. Weaver & David F. Partlett, Defamation, Free Speech, and Democratic Governance, 50 N.Y.L. SCH. L. REV. 57, 65–66 (2006).


social networks become widely used social netbanks, any already-existing cyberbullying or online sexual solicitation would also become finance oriented. This means that incidents involving minors as victims of financial extortion, exploitation, assault, and even murder could result from abuse of social netbanks. Social networking sites, which are 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. 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 cyberbullying and cyberthreats, and it has been argued that current legal and educational efforts to resolve these behaviors have been ineffective. These well-recognized problems are exacerbated by the ability to blackmail and financially extort or exploit others, which is made increasingly easy because of online financial services. Therefore, regulators must consider the unique atmosphere of social netbanks to protect children using those networks from financial bullying and harassment.

d. 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. Especially, as in the last few decades, children have emerged as a noteworthy market segment, particularly in the context of online products and services.


398. Id. at 29–30, 38.

399. See id. at 17 (“93% of American children had access to the Internet in 2007. In 2006 in Japan, this was the case of 65% of children aged 10–14 and 90% of teenagers aged 15–19. . . . [I]n 2008 . . . the percentage [of child internet users] ranged from 93-94% in Finland, Iceland and the Netherlands. . . . 99% of UK children aged 12–15 use the Internet, 93% of 8–11 and 75% of 5–7.” (citations omitted)).

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 because minors are viewed as not having full legal capacity until they turn eighteen years old.401 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,402 occur more when inexperienced children enter into contracts online and pay but do not receive adequate value, or find themselves tied into subscriptions.403 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.404 And while financial services applications and websites would rarely attract children and teenager traffic, big data platforms and social networks are mostly sought after by that same age group.405 Without proper safeguards, childish mischief on a social netbank may turn into a financial disaster for the child’s family.

4. **Competition with Banks.**

a. **Effect on Traditional Banks.** Referred to by Professor Julie Cohen as an “informational capitalism,” big data practitioners can be expected to utilize contemporary applications of big data beyond marketing and advertising.406 Big data and social netbanks’ unique advantages may help them grow quickly


403. *ORG. FOR ECON. CO-OPERATION & DEV.*, *supra* note 396, at 34.


405. *See Kids Not Equipped for Coming of Digital Age at Nine*, KNowTHENET, http://www.knowthenet.org.uk/articles/kids-not-equipped-coming-digital-age-nine (last visited Apr. 22, 2016) (pointing to a recent study that found more than half of children have used an online social network by the age of ten).

at the expense of the banking industry’s traditional players, which are subject to more burdensome regulation. Indeed, such advantages, mainly in terms of storage and data management or brokering, have already resulted in placing small banks, and even midsize ones, in an inferior position to big data and social netbanks in many respects. And 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. Indeed, traditional banks have already

407. See David S. Evans, Antitrust Issues Raised by the Emerging Global Internet Economy, 102 NW. U. L. REV. 1987, 1988, 1991-94, 2002-04 (2008) (arguing that as the Internet grows, social media businesses are increasingly becoming the subject of antitrust concerns given the emergence and growth of large online enterprises such as Google, Facebook, and eBay).

408. See Karl Flinders, Why Google Could Become the Amazon of Banking, COMPUTER WKLY. (July 30, 2014, 1:26 PM), http://www.computerweekly.com/news/2240225801/Could-Google-become-to-retail-banking-what-Amazon-is-to-high-street-retail (“[Social networks] use 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.”). 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.” FED. FIN. INSTS. EXAMINATION COUNCIL, supra note 22, at 3.

409. 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, similar to Amazon—which partners with individual retailers to connect them with customers, offering transactional services, product comparison, distribution, and users’ reviews—Google+ could offer services in retail banking, becoming a middleman across the sector. See Flinders, supra note 408. (“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.”).

410. In 2014, there were 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 providing 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 PROTECTION IN THE DIGITAL ECONOMY 30–32 (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); Resolution on Supporting Consumer Rights in the Digital Single Market, EUR. PARL. DOC. 2014/2973(RSP) (2014); Nest Acquisition: Another Brick in Google’s Great Wall of Data, FAIR SEARCH, http://www.fairsearch.org/nest-acquisition-another-brick-in-googles-great-wall-of-data/ (last visited Apr. 22, 2016).

411. Broughton on Apple Pay, supra note 12; see also Andrew Orlowski, Is Alphabet-Google Too Big to Jail? The Lords Find Out, REGISTER (Oct. 28, 2015), http://www.theregister.co.uk/2015/10/28/house_lords_eu_platform_enquiry/ (“Today’s
started to understand the consequences of having innovative online nonbank competition, specifically the unique attributes and advantages of big data and social netbanks in the financial services markets. And while recently the focus has been on the new Apple Pay system, traditional banks have been talking with the Federal Reserve about the influence of nonbanks, in general, on the payments system for quite some time. 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. The Community Banks Council also noted that not only are nonbanks subject to less regulation, but they are also less risk-averse than traditional community banks because the negative fallout associated with their failure is not nearly the same. Thus, nonbanks, 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 best serve consumers’ interests.

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—especially smaller—banks and social networks fairer and improve services for consumers. And given that these online issues related to nonbanks—specifically to big data outlets and social networks—platforms like Amazon can engage in targeted tracking, resulting in almost perfect price discrimination. . . . That raises a potential transfer of welfare from the pockets of consumers to platform operators. And Ezrach also wondered if the market dominated by the big plantations was actually as dynamic as all that. ‘Behind the veil’ there is slightly less competition.”


413. See Broughton on Apple Pay, supra note 12 (“If 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.”).

414. See Matthew Doffing, Community Bankers Report to Fed on QM Rule and Tech-Competitors for Payment, CFPB J. (Jan. 23, 2014), http://cfpbjournal.com/issue/cfpb-journal/article/community-bankers-report-to-fed-on-qm-rule-and-tech-competitors-for-payment (“We told the board that if they wait to act until they complete a study, it will be too late.”).

415. Id.

416. Id.

417. Id.
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, worsens the de facto discrimination between traditional banks, which have to adhere to existing laws and regulation, and new entrants, who are successfully stepping into the financial services market with no obligation to follow the same strict rules.

5. Conspicuous Disclosure and Informed Consent. 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. But banks are not the only financial institutions that face such disclosure requirements; other financial institutions have faced similar requirements too. 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. Thus, sections 115(f) and 165(d) of the Dodd–Frank Act grant the newly created Financial Stability Oversight Council as well as the Federal Reserve Board broad authority to require additional periodic public disclosures of banks and

418. See, e.g., Ruth Plato-Shinar, The Bank’s Duty of Disclosure—Towards a New Model, 27 BANKING & FIN. L. REV. 427, 433 (2012) (“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, 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.” Compliance Guide to Small Entities: Regulation DD: Truth in Savings, Fed. Res., https://www.federalreserve.gov/bankinforef/regddcg.htm (last updated Aug. 2, 2013).

419. For example, the regulation of money market funds is also premised on disclosure. See, e.g., Jonathan Macey, Reducing Systemic Risk: The Role of Money Market Mutual Funds As Substitutes for Federally Insured Bank Deposits 50 (Yale Law & Econ. Research, Paper No. 422, 2012), http://ssrn.com/abstract=1735008 (“Comprehensive disclosure requirements permit an investor to accurately assess the potential risk of an investment and then make an informed decision.”).

420. 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., Dodd–Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, §113(a), 124 Stat. 1367, 1398 (2010) (codified at 12 U.S.C. § 1523 (2012)).
nonbank financial companies to “support market evaluation of the risk profile, capital adequacy, and risk management capabilities thereof.” Internationally, too, a similar attempt to enhance market discipline of global banks has been implemented under the Basel Accords of the Basel Committee on Banking Supervision. 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. Similarly, in the United States the CFPB has started to tackle the issue of transparency through various angles. For example, focusing on the issue of remittance payments, the CFPB has recently finalized new disclosure rules under Regulation E mandated by the Dodd–Frank Act. Similarly, focusing on mortgage loans under Regulation X and Z of the Real Estate Settlement Procedures Act and the TILA, 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. The same rationale also led the CFPB to require PayPal, starting

421. Dodd–Frank Wall Street Reform and Consumer Protection Act § 115(f) (authorizing FSOC); see also id. § 165(d) (authorizing the Federal Reserve Board).

422. See Basel Comm. on Banking Supervision, Bank for Int’l Settlements, Enhancements to the Basel II Framework 23 (2009), http://www.bis.org/publ/bcbs157.pdf (strengthening Basel II’s market discipline requirements by imposing public disclosure requirements on banks). 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, Bank for Int’l Settlements, Consultative Paper on a New Capital Adequacy Framework (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. Id.


425. See Amendments to the 2013 Integrated Mortgage Disclosures Rule Under the Real Estate Settlement Procedures Act (Regulation X) and the Truth in Lending Act (Regulation Z), 80 Fed. Reg. 8767, 8772 (Feb. 19, 2015) (to be codified at 12 C.F.R. pts. 1024, 1026) (noting, among other things, that the updated guidance includes additional clarifying questions regarding the timing for providing the Loan Estimate, as well as new information for finding additional resources).
in October 2013, to provide to its potential and existing customers additional disclosures, error resolution privileges, and cancellation rights.426

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.427 This notion is generally supported by empirical studies, anecdotal evidence, and the reported personal record of legal scholars and judges.428 Reasons for not reading429 vary and range from lack of interest and difficulty in understanding the legal language, to the time consuming nature of those contracts and consumers’ nonexisting bargaining power.430 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 Professor Omri Ben-Shahar:

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.431

In the context of big data and social netbanks, the problem of fictional consent432 is exacerbated because consumers do not have

426. See eBay Inc., Annual Report (Form 10-K) (Feb. 25, 2015) (“On August 7, 2013 and January 13, 2014, PayPal and its subsidiary, Bill Me Later, 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 PayPal Credit products, including online credit products, advertising, loan origination, customer acquisition, servicing, debt collection, and complaints handling practices.”).
432. Radin, supra note 430, 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 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.’”).
the ability to interact in person or to physically get 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 bank disclosure duties.433

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—be it in actual money, money equivalences, time (e.g., to fill out a survey), or personal information.434 The social lending applications mentioned above are a good example of a tremendous social price one may pay in return for a financial service or product.435 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,436 and the dialogue 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 pop up automatically,437 could be proven to be inadequate for big

434. See Adam Levitin, Google Wallet—Regulatory Implications, CREDIT SLIPS (May 27, 2011, 9:39 PM), http://www.creditslips.org/creditslips/2011/05/google-wallet -regulatory-implications.html (“For example, how does we feel if I get discounts for financial services . . . if I agree to allow GPS location tracking of my movements? Or cookies that track the websites I browse?”).
435. See supra text accompanying notes 385–90.
437. See Christina L. Kunz et al., Click-Through Agreements: Strategies for Avoiding Disputes on Validity of Assent, 57 BUS. LAW. 401, 402–03 (2001) (discussing several case examples where online click-through agreements were insufficient to communicate the terms and conditions).
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.438 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,439 or pursuant to traditional law and economics theories.440 Building on that, behavioral law and economics takes the psychology-based insights from behavioral economics and incorporates them into legal frameworks. Specifically, Richard Thaler and Cass Sunstein441 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, would mean finding creative ways to incorporate appropriate default rules that would help minimize fictional consents in order to better protect consumers.442

B. General Nonbanks Regulatory Considerations

1. 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.443 In general, the practice of an open

442. 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 generally Bryan D. Jones, BOUNDED RATIONALITY, 2 ANN. REV. POL. SCI. 297 (1999) (explaining that bounded rationality claims 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).
443. For example, the FDIC withdrew its list of high-risk merchants because the list,
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’s actions if they have access to information about such government action.\textsuperscript{444} Moreover, it appears that in recent years there has been a push in the United States 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,\textsuperscript{445} which seek to ensure that the public may observe the meetings and deliberations of government bodies, and freedom of information or public record acts, which seek to ensure public access to the documents and records of government.\textsuperscript{446}

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.”\textsuperscript{447} It is always hard to start a business, 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, rather than settling the issue, left bankers and technology companies that play in these market segments ill at ease and uncertain about what would happen next. See Glenn Fosella, \textit{Regulatory Uncertainty Is Stifling Innovation in Payments}, AM. BANKER (Aug. 19, 2014), http://www.americanbanker.com/bankthink/regulatory-uncertainty-is-stifling -innovation-in-payments-1069433-1.html (“[T]he ongoing dispute between the Federal Trade Commission and the Federal Reserve Board over remotely created checks leave innovators frozen in their tracks.”).


\textsuperscript{446} See, e.g., \textit{What is FOIA?}, U.S. DEP’T JUST., www.FOIA.gov (last visited Apr. 22, 2016). 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.” THE FEDERALIST NO. 49 (James Madison). 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?

however, it would take greater efforts to get customers comfortable with a new product, let alone to hear about it.448

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,449 the CFPB has made several attempts to increase clarity and transparency of its consumer protection activities.450 Clearly, uncertainty is highly threatening to innovation, which is difficult to regulate451 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.452

2. 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 participants” of certain markets and nonbank covered persons that the CFPB has reasonable cause to determine is involved with conduct that poses risks to consumers with regard to the offering of consumer financial products or services.453

In the big data and social netbanking context, CFPB supervision can be based on the size of a service provider, if such networks are viewed as “larger participants.” 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 market

448. Id.
451. Gregory N. Mandel, Regulating Emerging Technologies, 1 L. INNOVATION & TECH. 75, 75, 88–89 (2009). (“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.”).
452. See Panner, supra note 447.
participants, 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, being subjected to regulation under the Dodd–Frank Act, and following the model of the Bank Holding Company Act discussed above.

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. 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, are almost completely unregulated and hence raise concerns, but even the ones that do are becoming the gatekeepers of many captive audiences that will learn to be solely dependent on them. 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


455. See supra note 14 and accompanying text (describing FSOC’s method for determining SIFI classifications and reiterating the need for nonbank transparency).


457. M-Pesa is a mobile money service that was initiated in Kenya in 2005 by Kenya’s largest mobile phone company, Safaricom. Using M-Pesa, users can deposit money to their account, which is stored on their mobile phones, and make a variety of financial actions without ever stepping into a bank. See Tom Jackson, M-Pesa Shows Why Mobile Money Is Yet to Realize Its True Potential in Africa, QUARTZ (Mar. 15, 2016), http://qz.com/639787/m-pesa-shows-why-mobile-money-has-failed-to-realize-its-true-potential-in-africa/.
and the financial markets would be significant, regardless of whether they are mainly financial intermediaries or actual independent bank-like entities.\textsuperscript{458} Indeed, the Apple scenario described above—in which 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 harmed—is a scenario we should strive to avoid and actively prevent if possible.\textsuperscript{459} Additionally, while financial intermediation on its face facilitates more efficient risk sharing among borrowers, who are the suppliers of funds in 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 intrinsically fragile, and most importantly it carries a significant social externality, represented by the risk of systemic disruptions in the case of contagion of run events.”\textsuperscript{460}

\section{C. Cost Benefit Analysis}

Following pressure from certain members of Congress, the D.C. Circuit, and some voices in legal academia, a cost-benefit analysis approach for financial regulation has recently been adopted.\textsuperscript{461} 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.\textsuperscript{462} Nonetheless, a D.C. district 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.\textsuperscript{463} Accordingly any type

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\textsuperscript{459.} See supra notes 361–63 and accompanying text.


\textsuperscript{461.} 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 falls flat and he 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 C. Coates IV, Cost-Benefit Analysis of Financial Regulation: Case Studies and Implications 86–88 (Eur. Corporate Governance Inst., Law Working Paper No. 234, 2014), http://ssrn.com/abstract=2375396 (arguing 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).


\textsuperscript{463.} Nat’l Ass’n of Mfrs. v. SEC, 956 F. Supp. 2d. 43, 56–58 (D.D.C. 2013). Earlier, the D.C. Circuit upheld a decision of the Office of Thrift Supervision against a CBA-based
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of regulation of social networks, 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.464 The 2013 CFPB’s final rule examined the potential benefits and costs to consumers and covered persons and included the following sub-issues: (1) benefits and costs of responses to the possibility of supervision specifically from increased compliance; (2) benefits and costs of individual supervisory activities; (3) costs of assessing larger-participant status; (4) consideration of alternatives; and (5) potential specific impacts of the final rule.465

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 services system.466 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 foot in the financial services market. After providing a detailed 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 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 challenge, see Stilwell v. Office of Thrift Supervision, 569 F.3d 514, 519, 520 (D.C. Cir. 2009), and another judge upheld a decision of the CFTC against a CBA-based challenge in 2012, even though the CFTC did not quantify the benefits or certain costs of the rule. See Inv. Co. Inst. v. U.S. Commodity Futures Trading Comm’n, 891 F. Supp. 2d 162, 192–93 (D.C. Cir. 2012).

465. Id. at 73,386–88, 73,390.
466. See As the U.S. Speeds Up Payments, Keep Your Eyes on These People, AM. BANKER, http://www.americanbanker.com/gallery/as-the-us-speeds-up-payments-keep-your-eyes-on-these-people-1075745-1.html (last visited Apr. 22, 2016) (detailing the Federal Reserve’s creation of a task force to study and improve payments systems).
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.