The Platformed Money Ecosystem: Digital Financial Platforms, Datafication, and Reimagining Financial Well-being

Akon E. Ekpo  
Loyola University Chicago, aekpo@luc.edu

Jenna M. Drenten  
Loyola University Chicago, jdrenten@luc.edu

Pia A. Albinsson  
Appalachian State University

Sophia Anong  
University of Georgia

Samuelson Appau  
The University of Melbourne

See next page for additional authors
Recommended Citation

Ekpo, Akon E.; Drenten, Jenna M.; Albinsson, Pia A.; Anong, Sophia; Appau, Samuelson; Chatterjee, Lagnajita; Dadzie, Charlene A.; Echelbarger, Margaret; Muldrow, Adriene; Ross, Spencer M.; Santana, Shelle; and Weinberger, Michelle F.. The Platformed Money Ecosystem: Digital Financial Platforms, Datafication, and Reimagining Financial Well-being. Journal of Consumer Affairs, 56, 3: 1062 - 1078, 2022. Retrieved from Loyola eCommons, School of Business: Faculty Publications and Other Works, http://dx.doi.org/10.1111/joca.12458

This Article is brought to you for free and open access by the Faculty Publications and Other Works by Department at Loyola eCommons. It has been accepted for inclusion in School of Business: Faculty Publications and Other Works by an authorized administrator of Loyola eCommons. For more information, please contact ecommons@luc.edu.

This work is licensed under a Creative Commons Attribution-No Derivative Works 4.0 International License. © 2022 The Authors. Journal of Consumer Affairs published by Wiley Periodicals LLC on behalf of American Council on Consumer Interests.
The platformed money ecosystem: Digital financial platforms, datafication, and reimagining financial well-being

Akon E. Ekpo | Jenna Drenten | Pia A. Albinsson | Sophia Anong | Samuelson Appau | Lagnajita Chatterjee | Charlene A. Dadzie | Margaret Echelbarger | Adrienne Muldrow | Spencer M. Ross | Shelle Santana | Michelle F. Weinberger

Abstract
Digital financial platforms have become an integral part of consumers’ lives—resulting in the datafication of...
everyday life and potential for uniquely impacting financial well-being. Extending previous transformative consumer research, we suggest financial well-being must center the ways digital financial platforms and their resulting data are increasingly enmeshed with financial decision making and consumption. Drawing on a theoretical lens of platformization, we propose the Platformed Money Ecosystem, which accounts for increased embeddedness of digital financial platforms within consumers’ lives and the subtlety of how everyday life is transformed into data: producing data at the micro-level, monetizing data at the meso-level, and regulating data at the macro-level. In conceptualizing the Platformed Money Ecosystem, we identify three data-informed considerations for scholars and policymakers to reimagine financial well-being: protecting consumer data, limiting data biases, and supporting data literacy.

**KEYWORDS**
digital financial platforms, financial inclusion, financial well-being

## 1 | INTRODUCTION

Dana starts her busy day by getting coffee at Starbucks. She panics when she notices she forgot her wallet at home but remembers she has a financial lifeline: her smartphone. Dana pays using the Starbucks mobile platform then swings by the gas station to fill her tank using her phone’s tap-to-pay feature at the pump. She drives to her office. After a few hours of meetings and emails, Dana grabs lunch with her colleague, Evelyn, who pays for their meals. Dana pays Evelyn back using the Venmo mobile payment platform. Dana’s day takes a downturn when her car battery dies. She gets a ride home via Uber, the ridesharing platform, and on the way home, she orders dinner using Grubhub, a food delivery platform. An entire day went by without a physical wallet, yet Dana completed a full range of transactions without traditional forms of payment (e.g., cash, personal checks, physical credit cards). This scenario showcases the convenience of using digital financial platforms in the modern marketplace.

Digital financial platforms have emerged as a central force in the marketplace and as mediators of consumers’ everyday behaviors and social relationships. These platforms are internet-based technologies (e.g., applications or websites) that enable financial services and interactions (Mützel, 2021). Through these platforms, consumers can split their rent, transfer a child’s allowance, donate to a non-profit, crowdfund for a loved one’s medical treatment, share a carpool, or sell goods online. Despite the growth in digital financial platforms, research has largely overlooked how such new technologies introduce nuances in our understanding of financial well-being. To date, financial well-being focuses on consumers’ financial security and financial
freedom, but what remains overlooked is how money becomes increasingly intertwined with personal data.

The purpose of our research is to consider how digital financial platforms reshape our understanding of financial well-being. Drawing on a theoretical lens of platformization, we contribute to research by conceptualizing the Platformed Money Ecosystem. Such a lens centers the embeddedness of digital financial platforms in consumers’ everyday lives and the subtlety of how such everyday life is transformed into data at micro-, meso-, and macro-levels: producing data, monetizing data, and regulating data, respectively. Further, we call for a shift in how consumer researchers explore and understand financial well-being by highlighting the role of data. Specifically, we identify three concomitant data-informed considerations for financial well-being: protecting consumer data, limiting data biases, and supporting data literacy. Thus, this “platformed” view of money introduces new opportunities to reimagine financial well-being that highlights the importance of data and digital financial platforms.

This article is organized as follows. First, we trace dominant perspectives of financial well-being, outlining the economic, psychological, and sociological perspectives of money and how digital financial platforms are changing its meaning. Next, we introduce our conceptual framework of the Platformed Money Ecosystem, drawing on platformization to highlight micro-, meso-, and macro-level data dynamics. Finally, we offer implications and future research opportunities for financial well-being and policy.

2 | DOMINANT PERSPECTIVES OF FINANCIAL WELL-BEING

To ground our conceptualization of the Platformed Money Ecosystem, we first define our understanding of financial well-being. Financial well-being refers to the “state of being financially healthy, happy, and free from worry” (Joo, 2008, p. 21). The Consumer Financial Protection Bureau (2015) outlines four elements of financial well-being: financial security in the present, financial security in the future, present financial freedom of choice, and future financial freedom of choice. These elements belie the stress experienced by consumers due to “current finances...and a sense of security about achieving future financial goals” (Netemeyer et al., 2018, p. 68). Money has been identified as a key factor in measuring financial well-being (Porter & Garman, 1992) and is defined as a medium governing exchange, communication, access, relationships, and power (Swartz, 2020). Ideas about money—and as a result, about financial well-being—vary by culture (Warmath et al., 2021), age (Brüggen et al., 2017), gender (Theodos et al., 2014), education (Binswanger & Carman, 2012), and other aspects of consumer identities. Here, we briefly review the dominant economic, psychological, and sociological perspectives of money and financial well-being.

Economic perspectives of money highlight its utilitarian function, albeit in dynamic forms (Goldberg, 2005), and representation of value (Hart & Ortiz, 2014). Within this view, financial well-being manifests through purchasing power and the ability to enact transactional market exchanges (Maurer, 2006). As such, evidence of financial well-being relies on the laws of supply and demand, devoid of social and cultural forces. Early economic theories of money focused primarily on price as it relates to inflation and interest rates, where financial well-being equates to market equilibrium. Classic works such as Hume’s (1777) Of Money essay, Mill’s (1848) Principles of Political Economy, Keynes’ (1930) A Treatise on Money, Friedman and Schwartz’s (1963) Monetary History of the United States, and others paved the way for modern models of monetary
economics, which focus broadly on money’s role in (de)stabilizing the economy and aggregate purchasing power (Tobin, 1982). Such scholarship explores how economic factors (e.g., unemployment rate, interest and inflation rates) are tethered to financial well-being outcomes (Greninger et al., 1996). However, a large body of research suggests money has gone beyond its original role as a medium of exchange or store of value (Mead & Stuppy, 2014), and as such, economic perspectives may overlook the complexities of financial well-being.

Psychological perspectives of money highlight the causal relationships between money, individual market behavior, and the mind of the consumer. Within this view, financial well-being manifests in understanding variations in how money impacts people’s financial decision making (Schwartz et al., 2011), goal pursuit (Teng et al., 2016), and pathways for self-enhancement (Kasser, 2016). Money ultimately impacts consumer behavior. Psychologists are concerned with understanding financial well-being in terms of financial knowledge and how money can “shape how people think and act” (Wang et al., 2020, p. 172). Thus, financial well-being is subjective in nature (Brüggen et al., 2017) and is influenced by how consumers decide to spend, save, and transact (e.g., mental budgeting, Raghubir & Srivastava, 2009; bottom dollar effect, Soster et al., 2014). Research highlights how consumers’ perceptions of financial well-being may vary depending on the form of money (e.g., credit cards). For example, for some consumers, credit card cues inflate perceived financial well-being and stimulate spending (Wong & Lynn, 2019). In short, scholarship on the psychological perspective of money suggests financial well-being is a function of goal pursuit, self-enhancement, and consumer perceptions (Wang et al., 2020).

Sociological perspectives of money acknowledge how money is embedded in and reflective of a particular social and cultural milieu. Within this view, financial well-being manifests in status, power, and structuring forces, which encapsulate and shape interactions, abilities, and behaviors of everyday life (Block, 1990; Marx, 1984; Zelizer, 1989). Thus, money decisions are not made in a vacuum; they often communicate tastes, attitudes, valuations, positions of power, and the social dynamics that constitute relationships. As such, financial well-being is influenced by social contexts. In this view, financial well-being is inherently relational and reliant upon positionality (Bandelj et al., 2017; Bradford, 2015; Maurer, 2006). For instance, education is often touted as a pathway to social mobility (Crockett, 2017) and a key factor in financial well-being (Binswanger & Carman, 2012; Consumer Financial Protection Bureau, 2017). However, for-profit higher education companies/institutions provide access to education but at a steep and inequitable cost (McMillan Cottom, 2020). This constitutes a form of “predatory inclusion” in which marginalized consumers are exploited under the guise of providing a path to financial freedom (Seamster & Charron-Chénier, 2017). Thus, from a sociological perspective, money is not only a resource to be leveraged; it also reifies the social products, processes, and relations needed to attain financial well-being (Swartz, 2020).

To date, dominant perspectives of money and financial well-being collectively center on consumers’ current and future financial security and their freedom to function within the marketplace. Increasingly, digital financial platforms (e.g., payment apps, digital banking) mediate such marketplace freedoms (Brennen & Kreiss, 2016). At the most basic level, platforms can be defined as “digital infrastructures that enable two or more groups to interact” (Srnicek, 2017, p. 43) and act as intermediaries among different stakeholders (e.g., platform users, platform producers, platform owners, advertisers; Sullivan, 2019). A key question to advance our understanding of financial well-being is: how does the emergence of digital financial platforms shape our understanding of financial well-being? To explore this question, we turn to the theoretical lens of platformization.
3 UNDERSTANDING THE PLATFORMIZATION OF MONEY

Platformization is defined as “the penetration of economic, governmental, and infrastructural extensions of digital platforms into the web and app ecosystems” (Nieborg & Poell, 2018, p. 4276). In essence, platformization explicates how digital platforms permeate everyday life such that they become producers of consumption cultures. Platformization as it relates to financial well-being explains the ways in which digital platforms and money intersect; and how multi-sided market actors employ platforms to legitimize everyday behaviors, unbeknownst to platform users (e.g., consumers). This raises a critical question that scholars have interrogated: where does power reside in platformization? Power does not reside in platforms themselves, rather it is shaped by the “political economy of platforms and their embeddedness in a complex array of markets” (Prey, 2020, p. 2). In other words, platforms are not neutral, which by extension, any transactions conducted on them would be subject to such power dynamics as well.

Central to platformization is a tension between the relational activities enabled by the platform and the less obvious datafication of everyday life. Decentralizing platform features and recentralizing platform-ready data together form a double logic of platformization (Helmond, 2015). Platforms provide opportunities to communicate, interact, sell, and exchange goods/services that consumers want (Gillespie, 2010), while simultaneously generating monetizable data from usage of the platform with the potential for influencing consumers’ lives (Helmond, 2015). Contemporary platformization of financial services is grounded in the infrastructure, data, and users once exclusive to investment banking, trading, and private equity firms (Bourne, 2020), where traces of digital transactions (i.e., user data) excluded that of the general public. However, the advancement of platforms in the financial industry has facilitated a complex multi-sided market that allows market actors to extract value by monetizing platform users’ data (Langley & Leyshon, 2021).

Digital financial platforms have transformed retail (e.g., e-commerce platforms like Amazon), service delivery (e.g., the gig/sharing economy platforms like Uber) and peer-to-peer financial exchange (e.g., mobile payment platforms like Venmo and Paypal; Kazan & Damsgaard, 2014). Such platforms paved the way for new forms of marketplace inclusion while creating new (and perpetuating old) forms of exclusion that go beyond the scope of dominant perspectives of financial well-being. For instance, platforms like Apple Pay and Venmo have given consumers more freedom to function in the marketplace by facilitating transactions via mobile phones. However, cash-free retail environments, such as AmazonGo, rely on digital financial platforms as the exclusive option for payment. This retail model indeed creates conveniences and provides new sets of customers with the opportunity to realize its value. Yet, such cash-free models also exclude consumers that do not have access to the requisite financial platform to transact, ultimately denying access to such services.

A comprehensive understanding of the platformization of money is as much institutional (e.g., markets, governance, infrastructures) as it is rooted in the practices of consumers. As money becomes digitally platformed, so too do the consumption practices of consumers who use such platforms. To understand the dynamics of digital financial platforms, we offer a conceptual model of the Platformed Money Ecosystem (see Figure 1), which centers the embeddedness of digital financial platforms in consumers’ everyday lives and the subtlety of how such everyday life, both public and private, is transformed into data. In this section, we discuss key actors and dynamics of platforms across three levels of the Platformed Money Ecosystem and the primary data function at each level: producing data (micro), monetizing data (meso), and regulating data (macro).
3.1 Producing data at the micro-level of the Platformed Money Ecosystem

At the micro-level, consumers adopt and use digital financial platforms based on their needs and the functional benefits that the platform purports. Platforms serve as “technology that supports the distribution of content from producers to consumers or between one another without the need for a dedicated retail outlet” (Blakstad & Allen, 2018, p. 243). In the Platformed Money Ecosystem, benefits of platforms (e.g., convenience of peer-to-peer payments, ease of purchase, 24-hour accessibility) drive consumers to adopt them. Critical to increasing the likelihood of adoption may include beliefs in the ease of use, credibility, and reduction of privacy risks of a financial platform (Featherman et al., 2010). As adoption proves pragmatic, utilization of digital financial platforms becomes increasingly embedded in the everyday consumption practices of consumers.

For example, Starbucks offers a mobile app that provides consumers with conveniences of placing and paying for orders that in the long-term allows them to earn loyalty rewards. The convenience that the Starbucks mobile app affords consumers include avoiding long waits for orders, avoiding the need for separate payment tender, and opportunities to learn about and use promotions before the general public. Adoption of the mobile app allows consumers the ability to reap benefits of increased efficiency and personalized service. However, a trade-off is required: consumers must deposit money into the Starbucks app, which once loaded can only be “used” by purchasing Starbucks products. Such practices render the consumer’s money unavailable for any future allocations (if needed) once loaded in the app itself. Although this example focuses on what might be perceived as a superficial app, the business practice of requiring pre-depositing money for app usage is common among mobile apps (i.e., parking, calling/communication, commuter/transit apps). This means consumers’ money is essentially frozen in an array of mobile apps and cannot be reallocated if needed. Therefore, across the broader use of digital financial platforms for any one consumer, there is potential for threats to consumers’ financial security. Pre-deposits across
multiple apps may not necessarily be in the best interest of a consumer who requires more liquidity. Thus, adoption is driven by individual consumer evaluations of the importance placed on these exchange-benefits.

By compelling consumers to a pre-deposit of cash on digital financial platforms, companies tether people to a particular restricted consumption choice. The inability to reallocate money in a manner that optimizes one’s financial outlook creates a situation that financially beholds the consumer to companies without recourse. When taking a broader view of this phenomenon across all the digital financial platforms a single consumer may adopt, we begin to see how one’s consumption behaviors are in some ways orchestrated by digital financial platforms. In the case of the Starbucks example, a consumer who has loaded money on their mobile app is now compelled to spend that money at Starbucks. As the practice of buying coffee becomes increasingly embedded in one’s everyday routine, the consumer’s primary choice of coffee will lean toward the brand in which they may already have a financial relationship. This may come as the primary choice despite opportunities for cheaper options (e.g., brewing Starbucks coffee at home or opting for a different brand altogether). While some consumers may opt to have more than one brand’s mobile app (e.g., Dunkin’ Donuts app), the revenue model of pre-deposited cash remains the same. Thus, potentially compelling the consumer to spend even more money due to depositing cash in two apps versus one. Such revenue models are designed to create stability in the company’s revenue stream and are therefore embedded in the design of the app to direct consumers accordingly. In turn, consumers ultimately agree to the rules of the app, comply with such requirements, and perhaps unwittingly participate in a marketing logic designed to primarily benefit platform producers/owners under the guise of potential value realization for themselves.

Platform developers continue to advance their value proposition through technical features, and in turn consumers may perceive such advancements as additional benefits potentially prompting more substantive use of such platforms. In the process of such utilization, consumers divulge personal information about themselves to platform owners, thus serving as the basis for which data is generated on such platforms. Interestingly, data generated from consumer use goes beyond financial information, spilling into areas of usage preferences, behaviors, context (e.g., location), social activity, and network of acquaintances, to name a few. Perhaps more problematic is that data generation is often unintentional and/or without consumer knowledge. Compounding such matters, platform producers and owners often turn to densely-worded terms of service agreements to note how consumers can educate themselves about data collection processes, the information that is collected about them, and how it is used. Unfortunately, because such agreements are tied to the user’s ability to use the app (requiring that the user agree to the terms set out by the platform producer/owner), most users skim past this step and quickly agree to the terms, regardless of whether the user consciously consents and/or fully understands how such data collection impacts them. Given that technology design has the ability to guide particular behaviors within its application (Rapp et al., 2019), such design practices can be seen as intentionally created such that they deter the average person from reading/comprehending such agreements to quickly begin using the app. When looking at this behavior with only a few consumers, failing to read these agreements may not pose much of a problem. However, across a population, serious long-term concerns arise as consumers collectively misunderstand or are misled in terms of how the data they produce is ultimately used. This raises the question: what happens with the data produced by consumers using digital financial platforms?
3.2 Monetizing data at the meso-level of the Platformed Money Ecosystem

At the meso-level, platforms are “digital gatekeepers with tremendous reach, power, and capacity for user monitoring” (Meier & Manzerolle, 2019, p. 545). Much of this power lies in “data capitalism,” where value is created through the extraction and monetization of consumers’ digital traces (West, 2019). Digital traces often consist of private data produced from individual use of a platform, owned and operated by non-governmental institutions. The data extracted and subsequently monetized are commonly considered private. Because data is generated on the company’s infrastructure, it is considered owned by the company, thus presenting the business with an asset to be leveraged. Such leveraging of data assets is at the crux of platformization, which supports multi-sided markets, encompassing multiple adjacent stakeholders (e.g., users, advertisers, app developers, platform owners). As private data is increasingly produced by platform users at the micro-level, it is in turn imbued with value, commodified, and sold among “non-users” at the meso-level. Therefore, there is incentive to facilitate adoption and use of digital financial platforms. The value of consumer data within a single digital financial platform becomes even more powerful—and monetizable—in the broader context of socially-based digital platforms.

For example, Venmo, a peer-to-peer payment platform, relies on a network of banks, retailers, individual consumers, social media platforms, and other market actors to extend the boundaries of financial transactions to a more social practice (Drenten, 2022). Venmo is known for its social feed, where users can leave comments, “like” payments, and view other people’s financial exchanges. Such features transform payment into a social transaction as much as an economic one, creating and increasing the platform’s reach and impact in the process (Acker & Murthy, 2020; Huang et al., 2020). A simple dinner with friends turns into a monetizable datafication opportunity, when a friend group splits the dinner bill via Venmo. The payee, recipient, and transaction details may be disclosed on an individual’s social feed, but more importantly such data is shared behind-the-scenes with partnering platforms that power such social features (i.e., Facebook). These connected platforms reciprocally collect data about each user from multiple vantage points (e.g., socially, financially), accumulate powerful insights into the everyday consumption activities of users, and subsequently generate predictive consumer profiles. Such enhanced consumer profiles command high monetizability as companies seek to target consumers through programmatic advertising, collaborative filtering, and personalized services. Thus, a central part of the Platformed Money Ecosystem relies on the uptake of financial transaction data, coupling this with once private data about consumers’ everyday lives, and transforming this data into a monetizable commodity.

Imbuing data with monetizable value is central to the digital financial platforms’ business models, akin to other freemium and ad-supported models. This is a key distinction versus traditional financial systems which rely primarily on fee-based monetization (e.g., credit card or loan interest). Such a business model is how the Platformed Money Ecosystem persists and facilitates the multi-sided market dynamic. What to consumers seems free comes at a cost of privacy, anonymity, and control. According to Venmo’s privacy policy, for instance, the platform collects an array of sensitive information including identification (e.g., street address, SSN), geolocation (e.g., GPS), social web information (e.g., Facebook friends, Twitter contacts), financial information (e.g., bank account and credit card information), and more. Venmo notes some of this information may be shared between the Venmo platform and “certain business partners and vendors” (Venmo, 2022). Compounding such data collection practices is that such platforms are
produced and reinforced by platform owners, who understand what types of data are valuable within the multi-sided market, which can be used to stronghold app developers to design apps that collect such valuable data. Venmo and other platforms reciprocally share data with one another as part of the “data capitalism” logic (Sadowski, 2019). In this simultaneous production of sharing and selling data, platforms are designed to increase synergistic capacities by creating richness in the data (Doorn & Badger, 2020), increasing the value of data.

The versatility and relative open access to digital financial platforms creates opportunities for enhanced financial freedom. For instance, Venmo does not require users to link to a verified bank account so housing-insecure consumers who struggle to obtain a bank account without a permanent address (Kaufman-Scarborough, 2019) can turn to Venmo to access financial resources (e.g., solicit donations using a sign featuring their Venmo username; Kapitan & Ross, 2020). Through a single platform (e.g., Venmo), consumers can split rent, pay a babysitter, and shop via connected retailers (e.g., CVS, Amazon). All of this comes at a veiled cost. While digital financial platforms may seemingly enhance the financial freedom of current and potential market participants, it may also create financial security issues in the long term among users. Digital financial platforms own copious amounts of data which can be aggregated to create models and predictions about consumers (e.g., employment, credit scores). Meso-level activities such as propensity scoring, a common marketing practice of identifying clusters of similar customers, have implications at the micro-level as consumers’ lived experiences are shaped by potentially flawed algorithms (Noble, 2018).

3.3 Regulating data at the macro-level of the Platformed Money Ecosystem

Because digital financial platforms are situated in a gray area between the financial industry and the technology industry, new complexities arise in how digital financial platforms are regulated and how consumers are protected in the Platformed Money Ecosystem. Platform governance captures “the layers of governance relationships structuring interactions between key parties in today’s platform society, including platform companies, users, advertisers, governments, and other political actors” (Gorwa, 2019, p. 854), and typically falls into one of three modes: self-governance, external governance, and co-governance. Digital financial platforms are largely considered technology companies, and as such, they can operate under the radar of financial securities laws and government policies (i.e., external governance). Simultaneously, governmental policies and laws have struggled to keep up with the advancements of tech companies and the data they produce. Thus, in the Platformed Money Ecosystem, regulatory responsibilities have largely fallen to the digital financial platforms themselves (i.e., self-governance), which has begun to prove problematic with recent public scandals around privacy, data handling, and financial protections (Gemini Advisory, 2021).

For example, in 2021, Google Pay launched a significant overhaul of its mobile app by integrating banking information, direct business connections for online shopping (e.g., Panera, REI, Warby Parker), peer-to-peer payments, auto-draft options for subscription services, and other capabilities. Google Pay’s expansive updates created concern in terms of privacy, data storage, and financial tracking. These concerns are made more significant given the breadth of Google’s branded services (e.g., Google Maps, Google Workspace, Google AdWords) and other owned digital properties (e.g., YouTube, Waze, Fitbit, Nest). Google Pay has the option “to crawl your Gmail inbox and your Google Photos account to look for receipts” and “use OCR [optical character recognition]
technology to auto-scan them and integrate them into your finance tracking” (Bohn, 2020, para 3). Although Google claims consumers’ transaction history will not be used for targeted ads, this restraint is entirely enforced and implemented by the technology company itself. At any point, Google could change its Terms of Service and break down such self-enforced barriers on data sharing. This form of self-governance is akin to what media scholars have termed “privacy custodians” (Zajko, 2018), or “custodians of the internet” (Gillespie, 2021), in which platforms function as the primary intermediaries, protectors, and guardians of data and personal consumer information. Thus, digital financial platforms become both the brokers and regulators of data. This is especially concerning given that Google Pay has essentially set itself up as a financial management platform, positioning itself as a benefactor by providing consumers an app that will help them to effectively manage their finances. However, the app’s infrastructure has been readied for the collection, processing, and sharing of data that would be produced within the app and related apps owned by the same company (e.g., GMail, Google Drive). Although Google has refrained from monetizing such data, they have created the infrastructure to do so at any given moment. In fact, given the newness of the platform’s features and the requirement of data, it would be no surprise if Google were to wait until after having collected copious amounts of data as means of optimizing the platform’s value proposition before making such changes. Taken together, this points to the strategic decision of platform owners to not just create digital financial platforms as a service for consumers’ utility. Rather, platform companies have created technological infrastructures that support multi-sided markets to which they simultaneously participate in and govern.

Despite calls for increased transparent cooperation to enact platform governance, data regulation has largely been ignored as a key part of financial freedom and financial security. The term “platform” itself was strategically used to allow such companies to brand themselves as intermediaries, arguing they only provide access to a service and are not liable for any content (i.e., data) exchanged through the service—including financial transactions (Gillespie, 2010). Regulatory approaches are further complicated because digital financial platforms operate through a data monetization business model versus traditional financial services which typically adopt a fee monetization model. However, traditional governing bodies are slowly recognizing their role in protecting consumers of digital financial platforms—by way of protecting consumers’ data. In the case of Google, as of January 1, 2022, a ruling in India mandated that Google must comply with the Reserve Bank of India’s (RBI) guidelines for card-on-file (CoF) storage (Qureshi, 2021). That is, Google can no longer store actual card data and must purge any previously stored data. This macro-level ruling to regulate data in service of consumer protection and privacy comes with unintended consequences at a micro-level for consumers whose automatic monthly card payments for Google linked services (e.g., Google Play, Google One, Google Cloud) risk being declined or canceled. Other government regulations, such as the European Union’s General Data Protection Regulation (GDPR) and Brazil’s General Personal Data Protection Law (LGPD), offer more unified regulations for processing, targeting, collecting, and storing personal consumer data. Collectively, the dynamics of the Platformed Money Ecosystem at the micro-, meso-, and macro-levels call for a shift in how consumer researchers explore and subsequently conceptualize financial well-being.

4 IMPLICATIONS FOR FINANCIAL WELL-BEING AND POLICY

Given the ways digital financial platforms are increasingly integrated into money management practices, the Platformed Money Ecosystem introduces new implications for financial well-
being and policy. Financial well-being traditionally captures ways to optimize consumers’ money management (Netemeyer et al., 2018), including financial security and financial freedom. Extending previous transformative consumer research, we suggest financial well-being must foreground the unique ways digital financial platforms and their resulting data are increasingly enmeshed with financial decision making and consumption. We offer three concomitant data-informed considerations for financial well-being—protecting consumer data, limiting data biases, and supporting data literacy—discuss policy implications within each domain.

4.1 Protecting consumer data as an element of financial well-being

Safeguarding consumers’ interests in the domain of financial well-being should extend beyond traditional financial regulations to also consider technology and data regulations. From a regulatory perspective, financial well-being policies have traditionally focused on the ability to protect consumers and their rights against financial transgressions. Governmental policies, laws, and regulations tailored to financial services (e.g., Fair Credit Billing Act in the U.S., Credit Institution Law in Vietnam) promote transparency, disclosure, and care in how consumers engage with financial institutions. In the Platformed Money Ecosystem, regulations should also include protection of consumer data and how might more transparency, disclosure, and care be practiced by digital financial platforms in how they handle consumer data.

The Platformed Money Ecosystem is situated within the increasingly blurred boundary between financial and technology sectors. This fosters complexity in how digital financial platforms should be regulated. Often legal terms of service become a proxy for transparency in how data is handled; however, research suggests over 90% of consumers do not read such policies when registering for digital platforms (Guynn, 2020; Obar & Oeldorf-Hirsch, 2020). At the same time, unlike credit card companies, U.S.-based digital financial platform companies typically are not required to protect consumers’ transactions from fraudulent activity, despite such companies being required by federal law to disclose how they collect, share, and protect personal data (Lowry, 2016). Thus, in the case of digital financial platforms, disclosure alone does not equate to regulation.

Protecting consumer data as an element of financial well-being highlights the importance of establishing proper oversight in the digital financial platform industry. Additional data-oriented protections could be added to existing financial government policies (e.g., Electronic Funds Transfer Act in the U.S.), such as borrowing from policies oriented toward data and digital tracking (e.g., General Data Protection Regulation (GDPR)). Although consumers may be able to “opt-in” or “opt-out” of varying degrees of privacy, some level of data tracking and storage is compulsory. Unbundling consent requirements would support accessibility, by allowing consumers to ostensibly opt-out of data tracking without negatively impacting their access to digital financial platforms. In continuing to explore protecting consumer data as an element of financial well-being, we suggest future scholars and policy makers consider the following:

- How can emphasizing consumer data protections shape financial well-being?
- How can data protections be integrated into financial policies?
- How might adopting data policies generate unexpected efficiencies in financial regulation?
4.2 Limiting data biases as an element of financial well-being

Digital financial platforms often provide a reprieve from discriminatory offline marketplace experiences (Ekpo et al., 2018). However, in many ways, discriminatory biases are also deeply embedded in digital financial platforms—shaped by potentially biased algorithms and existing prejudicial practices (Noble, 2018). Consumers’ use of digital financial platforms may systematically include or exclude them from equitable services, such as mortgage loans, as digitized transactions structurally shape such access (e.g., algorithmic filtering, Benjamin, 2019). In an era of big data, consumer rights advocates point to the practice of weblining (Danna & Gandy, 2002), in which online businesses and advertisers use consumers’ personal information to engage in digital “redlining”—ostensibly baking discriminatory bias into algorithms which then reify inequities in search outcomes or marketing messages. Digital financial platforms can both help and harm consumers. For instance, transgender individuals turn to digital financial platforms like PayPal for vital survival funds; however, they experience the biased practice of deadnaming as their legal names become permanently tethered to their account data (Drenten, 2020; Mostaghim, 2021). Thus, in the Platformed Money Ecosystem, some individuals have increased access to services, but it may not be equitable and in many ways may reify existing marketplace biases.

Limiting data biases as an element of financial well-being highlights the seemingly innocuous ways personal data is publicly accessible and thus tracked, curated, and sold among companies that subsequently use that data to profile consumers for marketing purposes. In line with technology and privacy concerns (Milne et al., 2021), this can foster consumer harms. “Big data” scraping and tracking exposes consumers to potentially unscrupulous activities amid hyper-surveillance (Clarke, 2019; Darmody & Zwick, 2020). Consumer data aggregated through digital financial platforms create a mechanism for potentially biased consumer profiling.

As a result, individual consumers or consumer groups may have restricted choice in participating in the marketplace (Bone et al., 2014). This is defined by both access to digital financial platforms and an ability to transact with the market. Digital financial platforms can compensate for inequities in theory. For instance, digital financial platforms like PayPal and Venmo comply with “screening payment notes for references to certain sanctioned countries, individuals, and organizations included on OFAC’s list of Specially Designated Nationals” (PayPal.com). This algorithm has resulted in reports of consumer payment histories being flagged or blocked for using terms such as “Iranian food” and “Palestinian Relief Fund” in the memo field of their payments. Thus, data-driven constraints result in potential bias, which can limit consumers’ ability to participate in the market. In continuing to explore limiting data biases as an element of financial well-being, we suggest future scholars and policy makers consider the following:

- How are the structural forces of financial well-being equitably applied across consumer populations?
- How does the embedded biases of data impact/shape the financial realities of consumers?
- What does equitable vs equal application of data-driven financial well-being look like across consumer populations?

4.3 Supporting data literacy as an element of financial well-being

Complementing the previous two considerations of financial well-being is how consumer knowledge and competence around data can be supported by marketers and policy makers
A critical component of the Platformed Money Ecosystem involves how consumers can participate in their own financial well-being and better understand how their data are used within and across digital financial platforms. Financial literacy is an important aspect of financial well-being (Huston, 2010). We propose including data literacy as an important element of financial well-being, particularly through existing financial literacy programs and efforts. Often, efforts around data literacy emphasize the ability to read, work with, and analyze data for the purpose of realizing its value, commonly associated with a larger narrative of communicating some message to a particular audience (D’Ignazio & Bhargava, 2016). In the Platformed Money Ecosystem, data literacy emphasizes the ability to make informed decisions about whether and how to best disclose one’s data in the use of digital financial platforms.

Many government and non-profit programs focus on enhancing the financial literacy of consumers to make more informed financial decisions. According to the European Banking Federation’s Financial Literacy Playbook, nearly all European countries have active national programs focused on financial education, and worldwide programs support financial literacy, such as the FDIC’s Money Smart program in the U.S., the Authority of Social Contribution’s Ghaya program in the UAE, and the Centre for Financial Literacy Education Africa’s Financial Literacy Challenge for High School Students in Ghana. Absent from such programs is the datafication of financial transactions and how digital financial platforms are increasingly mediating money. Thus, existing financial literacy programs could be integrated with data literacy, in our view, defined as acquiring a rich understanding of how data traces are produced and used through digital financial platforms. Such literacy could empower consumers with the necessary skills and resources to counteract the impacts of biased data in financial decision making, recognize scams mediated through digital financial platforms, and be attentive to the dynamics of digital financial platforms.

One such instance is in the ways consumers are socially surveilled. For example, the Venmo social stream enables other users or even the public to monitor transactions (Acker & Murthy, 2020), and personally identifiable information is increasingly available via digital financial platforms. This becomes even more precarious through digital financial platforms such as Lenme, which offers peer-to-peer loans informed with private data from financial institutions (e.g., credit reports). Consumers may not be fully aware of the behind-the-scenes dynamics in how their financial data is being used or surveilled, making such platforms potentially predatory. By increasing data literacy of consumers, consumers could make better informed decisions about what social information they include while transacting or whether to post such transactions to their network at all. Such literacy would also arm consumers against increased dangers of fraudulent activity that often occurs with such digital financial platform use. In continuing to support data literacy as an element of financial well-being, we suggest future scholars and policy makers consider the following:

- How can digital financial platforms support more informed data disclosure behaviors?
- What informational requirements do consumers need to better understand how their data is used on digital financial platforms?
- How can we socialize better data-literate consumers for financial well-being?

5 | CONCLUSION

Issues of financial well-being, which impacts overall consumer well-being, have been central to transformative consumer research (Mick et al., 2012; Netemeyer et al., 2018). Extending this
work, we call attention to how platformization relates to and has shifted the meaning of financial well-being—and thus how future researchers, policymakers, and consumers must approach the role of digital financial platforms in everyday life. We offer a conceptual model of the Platformed Money Ecosystem, which highlights how data fuels digital financial platforms, and as such critically changes the social dynamic between consumers and the marketplace as it relates to maintaining one's financial well-being. Using financial freedom and financial security as defining characteristics of financial well-being, we discuss how these characteristics are potentially impacted by the data that is produced, monetized, and regulated by various market actors within the Platformed Money Ecosystem.

Our research marks a significant shift in how we understand financial well-being, by foregrounding how the increasing influence of data may shape the options available to consumers and subsequently their financial decision making and consumption. As such, we call attention to three domains of potential future research that might explore financial well-being and related public policy: protecting consumer data, limiting data biases, and supporting data literacy. Calling attention to such matters may help future research to find solutions to potentially enable, support, and empower consumers to navigate and overcome inequities, as they intersect with social class, gender, sexual orientation, race and ethnicity, religion, and disability.

ACKNOWLEDGMENTS
This study is wholeheartedly dedicated to the late Dr. Ilana Shanks, who graced our TCR group with her delightful insight, warmth, and overall passion for well-being in all facets in life. It is with her early contributions and infectious enthusiasm that her spirit is woven in this paper.

ORCID
Akon E. Ekpo https://orcid.org/0000-0002-0630-1782
Jenna Drenten https://orcid.org/0000-0001-9718-3437
Pia A. Albinsson https://orcid.org/0000-0002-8591-5191
Sophia Anong https://orcid.org/0000-0003-4416-9847
Samuelson Appau https://orcid.org/0000-0003-4460-1900
Margaret Echelbarger https://orcid.org/0000-0002-7110-0813
Adrienne Maldrow https://orcid.org/0000-0003-3519-3343
Spencer M. Ross https://orcid.org/0000-0001-5188-5804
Shelle Santana https://orcid.org/0000-0003-4077-1929
Michelle F. Weinberger https://orcid.org/0000-0003-2864-7140

REFERENCES


