

From Inclusion to Equity

Making Fintech Work for
Low-Income Consumers

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Background

The proliferation of mobile and internet technologies in recent decades has led to an infusion of financial technology—or fintech—companies into the marketplace, resulting in a shake-up of consumer financial service offerings in the United States. In 2019, fintech investment set a new record with \$59.8 billion of investment in the United States.¹ From banking, trading services, and cryptocurrencies to mobile payments and financial tracking apps, the steady rise of fintech has posed a real challenge to social service organizations, let alone the larger fintech world: namely, how to incorporate traditionally excluded consumers and demographics who stand to benefit most, and how to hold fintech companies accountable to their success?

Consumer financial services have often neglected low-income people and people of color, hampering their ability to build credit and savings and improve their overall financial well-being. A 2016 study by National Community Reinvestment Coalition (NCRC) of home lending patterns in St. Louis, Milwaukee, and Minneapolis found that race and income were strong predictors of mortgage activity; in St. Louis, NCRC found that “isolation from financial services impacts the ability of majority African American neighborhoods to build wealth, concentrating poverty.”² For other vulnerable people—such as undocumented immigrants, formerly incarcerated people, and those experiencing homelessness—the structural barriers to building credit and savings are surfeit.

According to the Federal Reserve, 16 percent of U.S. adults remain underbanked while 6 percent are unbanked entirely.³ That accounts for nearly a quarter of all U.S. adults. Furthermore, “Two-fifths of unbanked adults used some form of alternative financial service during 2018—such as a money order, check cashing service, pawn shop loan, auto title loan, payday loan, paycheck advance, or tax refund advance.”⁴ Discrimination, redlining, and the demise of government-supported banks that once aimed to serve the poor have all contributed to a situation in which at least 12 million Americans rely on payday cash loans on an annual basis.⁵ Because of their higher credit risk and lower profits, the poor have a harder time getting small loans from banks.⁶

During the 2008 financial crisis, low-income families saw their wealth decline disproportionately.⁷ Meanwhile, as the COVID-19 pandemic continues to wreak economic havoc across the country, millions remain unemployed and a housing crisis looms as rents go unpaid. As one recent paper notes, the ongoing “pandemic may also expedite us toward [a] fully digital lifestyle and cashless economy, as digital banks are seeing increased traffic while people embrace digital and contactless technologies.”⁸

This year, as part of its technology platform, Change Machine [introduced](#) a product recommendation engine that empowers social service practitioners to connect their customers with promising fintech products and services. These products and services are rigorously vetted for safety, affordability, and effectiveness among low-income individuals, and are ultimately validated by the customers to whom they are recommended. The

recommendation engine seeks not only to improve uptake of fintech products and services among customers who have been excluded, but—by holding the platform accountable to furthering customers’ financial goals—to advance equity of financial security as well. In conjunction with the recommendation engine, Change Machine’s platform serves as a vehicle through which customers influence the broader fintech field and narrative around poverty and enduring inequity.

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For those in the financial security field, fintech partnerships like those represented on our platform offer the potential to drastically increase low-income consumer representation in the market. In the current landscape, where big banks and startups alike are competing in a rapidly evolving fintech sector—and as the economic fallout from the pandemic continues to affect households across the country—it is more crucial than ever that the fintech sector seeks to reduce and eliminate barriers for low-income households.

The Problem: Challenges and Barriers in Fintech

In its current state, the fintech sector abides by political, social, and regulatory norms that serve as barriers to traditional financial services serving low-income communities and communities of color. In the same vein as mainstream financial institutions, fintech companies overwhelmingly target “low-risk” consumers who operate in the financial mainstream. From concept development and design of fintech products to product delivery, marketing, and even customer service, a myriad of factors have stymied the potential of fintech to reach those most in need of its service, resulting in a devaluation of low-income consumer markets.

Due to a lack of awareness and trust—as well as high cost—lower- and middle-income people adopt promising fintech products more slowly than their affluent peers, an inefficiency that deprives companies of growth and potential customers of valuable financial services. In the Federal Deposit Insurance Corporation’s 2017 survey of unbanked and underbanked households, two of the most common reasons individuals cited for not having a bank account included “account fees too high or unpredictable” and “don’t trust banks.”⁹ According to the FDIC, banks “focus their initial efforts on delivering mobile financial services to their more established, profitable and less risky customers.”¹⁰

Low- and middle-income consumers who stand to benefit most must first be made aware of fintech products and services. Some research demonstrates that lack of awareness is the most important barrier to adoption across all demographic groups with some non-users reporting they either weren't aware or had a limited understanding of the fintech product.¹¹ The result is a vicious cycle: Fintech companies infrequently court lower and moderate income people because they perceive lower profit margins, and in the absence of marketing and targeting, working poor people are subsequently not aware of products available to them. All of these barriers result in a vacuum where a robust marketplace could otherwise exist.

The prospect of a more inclusive and equitable marketplace comes into sharper focus when we recognize that low-income households are, in fact, robust consumers: “financially underserved consumers in the U.S. spend \$189 billion in fees and interest on financial products in 2018.”¹² Yet the disconnect is clear when we consider that despite historic levels of investment in the fintech sector—\$58.9 billion in the U.S. in 2019¹³—people who earn less than \$30,000 per year utilize fintech products six times less than those who make more than \$150,000 per year.¹⁴

Language barriers—i.e., fintech products that are English-only—and strict identification requirements—for example, requiring a Social Security number for product use, which may impede access for undocumented people—are just a few of the ways in which low-income people may be further excluded from fintech offerings. The rise of digital and mobile transactions has led to preference for cashless transactions, possibly to the exclusion of low-income people. [A two-tiered cashless system system](#) that leaves millions of Americans in its wake would be both inequitable and unprofitable.

Circumstances external to the fintech sphere—e.g., technological barriers like access to the internet—have only amplified exclusionary practices. According to the U.S. Census's survey of computer and internet use, most households have a computer (including a smartphone) and broadband internet access.¹⁵ Yet technological and infrastructural gaps persist. Black and Hispanic households are less likely to have a computer or an internet subscription. Among households with an income of less than \$25,000, 28 percent lack a computer and 42 percent lack internet access, while lower-income counties have lower rates of internet access.

Moreover, rural Americans are 12 percent less likely than the average American to have broadband at home, according to a 2019 Pew poll.¹⁶ Despite increased internet usage, many rural areas still lack adequate infrastructure for internet connectivity. For those individuals who lack a robust digital footprint, the complex algorithms used by some fintech companies might mean their products are not as effective or helpful.¹⁷ These barriers are not in any way endemic to the fintech sphere, but they underscore the extent to which underlying structural divides play a role in fintech's success and reach. They also emphasize how fintech inclusion is dependent on other factors, like affordable internet access, digital rights, and a functionally inclusive digital economy.

The majority of fintech products on the market today are not tailored to the needs of the poor and, more often than not, are not built with their financial security in mind. Where credit unions, savings and loan associations, and other banking ventures once provided loan services that met the needs of low-income consumers, today's consumer financial products heavily favor the needs of their wealthier, more "profitable" clients. Mainstream banks deliver products that are not "innovative creations resulting from market research about what the poor really need," but "offer the bare minimum so that they can maintain profitability while fulfilling a regulatory mandate."¹⁸ The current consumer financial landscape demonstrates the need for products that don't just prioritize inclusivity for the sake of inclusivity, but aim to actively meet the needs of low- and middle-income individuals and build their overall financial security.

In lieu of financial products that meet the needs of the poor, fringe banking services offer products—e.g., payday loans, "nonrecourse liquidity products"—that capitalize on the failures of the American market economy. Some research also indicates that algorithms reduce discrimination compared to face-to-face lenders, but given fintech's promise, it should eliminate discrimination altogether. Moreover, algorithmic pricing discrimination is still an issue.¹⁹ These practices disproportionately harm low-income households and only further hinder the adoption of similar fintech products.

A lack of data collection has stymied the ability of fintech to facilitate an environment more conducive to low-income people. Furthermore, the absence of a robust regulatory apparatus poses additional challenges for fintech. Last year, 21 state attorney generals cosigned a letter urging the CFPB to implement better consumer protection policies with regard to fintech.²⁰

Within the digital economy, low-income people face outsized risks. From online fraud to algorithmic bias that unfairly harms the poor, low-and-middle income people are especially vulnerable to surveillance and artificial intelligence tools. Data protection and digital literacy may be another issue, as some fintech products rely on the selling of customer data to third parties.²¹ Consumers, and especially vulnerable people, may not fully understand what rights or data they may be signing away.

Given the current regulatory landscape, these issues risk exacerbating the financial insecurity of the most vulnerable in an increasingly digital world. However, with a grounded understanding of these risks in mind, the fintech sector and social service organizations alike can work to ensure an inclusive and fair fintech economy—one that delivers the same level of service, ease-of-use, and efficiency to those who are most in need of its benefits.

The Opportunity: Building Financial Equity

Given the worsening structural barriers faced by many Americans, the fintech ecosystem can and should push the boundaries of financial inclusion, with a greater focus on equity. In addition to investments in on-ramps, starter accounts, and other inclusive products, the fintech ecosystem should also focus on the long-term impact of their products and their

role in advancing a more equitable economy. Rather than building products and services that center the experiences of the financial mainstream, the fintech ecosystem should hardwire products to actually build financial security for historically disenfranchised consumers. By prioritizing this market, fintech can simultaneously enhance its value for all consumer markets and be a force for social impact.

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By now, the many upsides to fintech are well documented. Fintech efficiently delivers essential financial services at cheaper prices, while offering personalized control over consumer finances. Fintech has also filled existing market gaps, such as by eliminating overdraft fees, offering lower-priced loans, accessing home equity, delivering specialized services for loan servicing, and reducing international transaction costs while enforcing contracts (i.e., cryptocurrencies and smart contracts).²² Fintech products can also help consumers easily manage their money, track savings, pay bills quickly, instantly view account balances, and settle personal debts quickly. According to one analysis of a fintech app that increases information accessibility for consumers, there is a “substantial reduction in financial fee payments in response to accessing information more often.”²³ Given the cost efficiencies associated with digital technology, the “promise of cost saving to be translated to consumers is huge.”²⁴

In other ways, fintech products can release individuals from physical constraints or extant barriers in mainstream financial services. In some parts of the country, banking deserts preclude low-income people and those in rural areas from participating in mainstream financial services. A 2017 analysis by the St. Louis Fed found that almost 4 million Americans live in a confirmed bank desert, with many more living in potential bank deserts.²⁵ Low-income people may be twice as likely to live in a banking desert than the average individual.²⁶ Since the 2008 financial crisis, thousands of bank branches have closed, leaving many Americans in a position of financial precarity. As the country faces another financial crisis—precipitated by a pandemic that has stymied physical interaction and forced many Americans to rely on digital technologies—those banking deserts are likely to increase.

In one paper, researchers found that, “greater financial inclusion is associated with a better enabling environment to access financial services, such as lower banking costs, greater proximity to branches, and fewer documentation requirements to open an account.”²⁷ Moreover, the authors concluded, policies that “promote inclusion—such as government requirements to offer basic or low-fee accounts, exempting small or rural depositors from

onerous documentation requirements, and the use of bank accounts for government payments—are especially effective among rural residents and the poor.”²⁸

And yet there is an even greater opportunity to create equity. Change Machine is proposing three recommendations to ensure that the people who have the most at stake, and who stand to benefit the most, actually increase their financial security and achieve their financial goals as a result of using fintech products and services.

Utilize sound public policy as the foundation for fintech development.

The first proposal lies at the crossroads of fintech and public policy. At Change Machine, we believe that sound public policy should function as the fundamental building block for the development of any fintech product. This minimum requirement supports our mandate that financial security be the primary purpose of all fintech development, and promotes greater efficiency throughout the development process. Furthermore, it positions fintech to be a force for equity, working in concert with established consumer protection policy to tackle unmet market needs that prioritize the financial security of low-income consumers.

In 2012, Americans spent \$7.4 billion on payday loans annually, “spending about \$520 on interest with an average loan size of \$375.”²⁹ From the exclusion of low- and middle-income households from small- and mid-sized loans to the fact that nearly a quarter of American households are underbanked or unbanked altogether, fintech solutions offer the potential to address entrenched and outdated inhibitors to financial inclusion like high-interest loans and punitive fees.

When coupled with strong consumer protection policies, we begin to see the impact on poor peoples’ financial security. For example, the CFPB-commissioned 2014 randomized controlled trial of financial coaching—of which Change Machine was a program partner—tested the impact of financial coaching on residents of New York and Florida. In New York, where payday loans are illegal, trial participants were 8 percent less likely to obtain cash from a payday loan service.³⁰ Against the backdrop of public policy that protects low-income consumers, fintech can build and deliver products that are designed to work for this population and amplify social impact.

Implement “pro-poor” products and services.

A 2016 study of underserved communities and the potential impact of mobile financial services identified five ways that mobile financial services benefit underserved consumers: checking balance and transaction history, which helps consumers make on-the-spot financial decisions; alerts that help consumers avoid fraud and fees; bill pay for timely payments; peer-to-peer transfers that help consumers settle personal debts quickly and conveniently; and finally, mobile remote deposit capture, which helps consumers save time and money.³¹ Such tools help give consumers a greater sense of control over their personal finances. In fact, according to the FDIC’s focus group, in terms of control, convenience, affordability, and long-term financial management mobile financial services are superior to their traditional counterparts.

Fintech products are also an opportunity to correct for marginalizing banking practices, like overdraft fees that disproportionately affect low-income households and people of color. In a recent opinion piece, two authors called on banks to cancel consumer debt and eliminate banking fees for Black customers.³² As the authors note, Black families “are the only racial group that owes more than their belongings are worth.” At Change Machine, we stand in solidarity with these demands and offer additional insights and solutions to make banking work for low-income consumers, such as the abolition of ChexSystems. From banking to loans, fintech has an opportunity to develop products that address longstanding inequities in our financial system.

As low-income communities and people of color continue to bear the brunt of its health and economic impact, the COVID-19 pandemic has only highlighted the disconnect between mainstream financial services and low-income consumers. Thirty-two percent of U.S. households missed their July rent payments and mortgage delinquencies hit a record high in July 2020. Although unemployment declined in July, many millions of Americans remained unemployed for the foreseeable future. As jobless benefits expire and work requirements kick in for those on SNAP or other financial assistance, the economic toll looms large.

We call on the fintech field as a whole to follow suit by implementing “pro-poor” products and services that build financial security for low-income consumers at faster rates than their more affluent peers.

Even amid the ongoing pandemic, some fintech companies have demonstrated innovation. As noted by Deloitte, fintech companies have responded to the crisis in a number of ways: Lending Club has added new hardship plans and waived late fees, Nomo is providing free access to new customers, and Flock is allowing customers to pause their policies.³³ These actions demonstrate the speed with which fintech products—and especially those tailored to certain sectors or demographics—can respond to the changing realities of their customers. We call on the fintech field as a whole to follow suit by implementing “pro-poor” products and services that build financial security for low-income consumers at faster rates than their more affluent peers.

Engage the communities and the nonprofits that serve them.

As fintech continues to transform the financial and digital economies and mature as a sector—whether it’s partnering with traditional financial institutions or upending entire industries—it is imperative that the fintech sector emerges as a leader on the issue of equity, especially at a time when households and businesses are more reliant on the

digital economy than ever. Social service organizations will be crucial to the endeavor of increasing equity in fintech. Because of their subject matter expertise and valuable vantage point on behalf of the communities they intimately know, serve and advocate for, social service organizations can and should be meaningful participants in the work of financial equity because they are committed to helping individuals use the fintech tools at their disposable responsibly and for their own benefit.

Social service organizations in particular are aided by the high level of trust that communities have in them. In partnering with these organizations, fintech companies can capitalize on the level of trust these organizations confer while offering an additional layer of human interaction, especially for those individuals with lower levels of digital literacy. Social service organizations “can serve as advisors to fintech entrepreneurs and financial institutions who are building and refining products for the underserved and they can also create new fintech products and services themselves.”³⁴

A recent Urban Institute report addressed the potential for partnerships between nonprofits and fintech companies. In their evaluation of a pilot partnership between the Financial Health Network and five Chicago-based nonprofit organizations, the Financial Health Network delivered technical assistance for various fintech products with some users gaining real value from their use.³⁵ According to their analysis, trust was a “key factor” in the distribution of fintech products. Still, underutilization was an overall problem for fintech adoption, underscoring the persistence of certain barriers like technological support, language compatibility, and digital security.

By advancing public policy work, developing tools and features explicitly targeted to poor households, and engaging directly with low-income communities (as well as the nonprofit organizations that have deep ties to these communities), fintech can not only expand its reach but also realize its promise to create a fairer, more equitable economy.

At Change Machine, we promote these recommendations through fintech partnerships, as well as in our own work to facilitate a community of practice that amplifies the impact of social service practitioners on the financial security of low-income communities. Together with our product recommendation engine and Seal of Inclusivity, these recommendations are designed to advance an equitable economy in which today’s low-income consumers thrive.

Change Machine’s Approach: A Case Study in Equity

Change Machine (formerly The Financial Clinic) is a nonprofit organization that builds financial security for low-income communities through people-powered technology, leveraging lessons learned on the ground for systems-wide change. Change Machine’s outcomes framework—a six-part model that focuses on assets, banking, credit, debt, taxes, and financial goals—was rigorously evaluated in a randomized controlled trial commissioned by the Consumer Financial Protection Bureau (CFPB). The trial

demonstrated the impact of Change Machine’s model on the financial security of low-income individuals. On average, participants earning an annual income of \$21,000 increased their savings by \$1,721, decreased their debt by \$1,009, and improved their credit score by 33 points.³⁶

Armed with these results, Change Machine sought to achieve impact at scale by embedding financial security strategies into the existing social service infrastructure across the country. Through training and technical assistance, Change Machine integrates financial security strategies into the programs and service-delivery models of hundreds of social service organizations spanning more than two dozen social service sectors, increasing access to financial coaching for customers and empowering practitioners to accelerate their unique mission-level outcomes.

In 2015, Change Machine publicly launched a financial coaching platform that further supports practitioners to build their customers’ financial security. On the platform, practitioners access learning modules and self-paced quizzes, track customer progress toward outcomes, and interface with colleagues in the field. The platform also avails an organizational development framework, which supports nonprofit leaders to implement and sustain integrated services. To date, Change Machine’s platform has been used by more than 4,000 practitioners in 45 states to build financial security for over 80,000 customers, returning a total cash value of \$42 million to working poor Americans.

Change Machine’s shift to digital has given rise to a resourceful virtual community. This community allows the organization to harness the insights of customers’ lived experiences and specific data points to create roadmaps to financial security in a variety of contexts, including a global pandemic. Change Machine is part of a new wave of mission-driven fintech, best positioned for nimble and resourceful solutions even as the U.S. economy undergoes a paradigm shift triggered by a global pandemic.

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The Recommendation Engine

In May of 2020—as the COVID-19 outbreak was sending financial shocks to millions of households across the country—Change Machine introduced on its platform a recommendation engine that equips social service practitioners to confidently connect their customers with trustworthy fintech products and services.

This feature imagines a world where practitioners have easy access to safe, affordable, high-quality products that deliver value to low-income consumers. In this world, traditionally underserved consumers dictate which products and services have impact and which do not. The lack of knowledge about the available options in the growing and complex fintech landscape can leave consumers feeling paralyzed about using any of them without in-person assistance to pick and choose something that will meet their needs. The recommendation engine aims to fill this void, seamlessly integrating fintech offerings into Change Machine’s financial coaching model, which primarily focuses on assets, banking, credit, debt, taxes, and financial goals. With a vetted repository of products and services at the ready, practitioners can amplify their work with customers, improving engagement and accelerating outcomes achievement.

The Seal of Inclusivity

To realize the recommendation engine, Change Machine developed the Seal of Inclusivity—a set of criteria to determine which products and services appear in the recommendation engine. Developed with low-income individuals and nonprofit leaders at the helm, the Seal of Inclusivity guarantees that products included on the platform are safe, affordable, and effective for low-income consumers. Its design is intentionally utilitarian, offering practical support to practitioners in their everyday work.

Change Machine will actively feature products that build financial security because they build savings and credit, lower banking costs and debt, and help customers manage their taxes. The Seal of Inclusivity will help ensure that the fintech products we recommend are designed for ease of use and understanding and that their systems and softwares are recognizable, intuitive, and make everyday financial activities quick and efficient. Products on Change Machine’s platform are chosen to meet the distinctive needs of low-income, majority Black and Brown consumers and to remove barriers to participation.

In addition to evaluating whether the cost is fair, Change Machine’s team also vets fintech products for inclusivity and accessibility. That means vetting for products that are clear and upfront about their services—what’s offered, how it’s offered, and how customers can choose to access the product now and in the future. Change Machine will also ensure that featured fintech products are safe and transparent.

The COVID-19 crisis, like other economic crises, has attracted predatory actors performing in bad faith. As such, a critical element of the Seal of Inclusivity is the safety and transparency of fintech products. Companies whose products are featured in the platform must be clear and upfront about their services. During the product recommendation process, our customers will be made aware of how the associated fintech company might collect, use, and store their information, as well as how their data is being protected from data breaches or faulty technology.

The principles that form the foundation for the Seal of Inclusivity are intended to be iterative and flexible. As we learn more about what is important to our customers, practitioners, and fintech companies, we will continue to hone and adjust the process by which products are tested and evaluated.

The Seal of Equity

The goal of our Seal of Equity is to codify our belief that customers are their own best experts. We built two different approaches to ensure this; the first is a review process and the second is a validation tool. After enrollment, practitioners and customers provide feedback directly on the platform about the product. For example, feedback might explain why the customer did or did not find it useful, user friendly, or how the product did or did not relate to their financial goals. This feedback provides critical information for Change Machine, other practitioners, and for the fintech product-makers themselves about why a particular product is attractive or not. Over time, the recommendation engine will also feature a validation function to correlate product uptake, retention, and usage with real-time household budget data and other financial security inputs.

By selecting fintech products that are safe and user-friendly, and underwriting those products on behalf of the practitioners who recommend them, customers are put in the driver's seat of their financial security. Ultimately, it is the customer's experience and validation that curates products on the platform. Both the Seal of Inclusivity and Seal of Equity are designed to be actionable for low-income customers—a living, breathing process of validation and accountability.

With these efforts, we will disrupt the vicious cycle of fintechs avoiding low-income households because of perceived profit margins and subsequent lack of targeting and marketing that result in low-income customers not being aware of products that could help and perpetuates the market's misalignment.

Early Lessons Learned

In designing Change Machine's new recommendation engine and both the Seal of Inclusivity and Equity with practitioners, we knew that practitioners are themselves often only one paycheck away from the people they serve. From the outset, their financial security and role in the recommendation process have been key to this work.

Over the past year, Change Machine has conducted training and testing with a subset of practitioners on the platform, with the goal of optimizing fintech product recommendations in coaching sessions. Through this engagement, we gathered and analyzed practitioner feedback, which we then sorted into two primary categories: practitioner comfort levels and their perceived relevance of fintech products.

On the topic of practitioner comfort levels, we identified a preference among practitioners to first familiarize themselves with the products and to engage in product testing prior to making recommendations to customers. With a growing suite of products on the platform, it is important that the Seal of Inclusivity evolve to provide a certain level of practical guidance related to product evaluation that leaves practitioners feeling comfortable when recommending a product that they have not necessarily tested themselves. To this end, we will emphasize data-driven outcomes over marketing language in the Seal of Inclusivity. In addition, we will incorporate guiding questions around each criteria to better support practitioners' practical evaluation of products.

In the context of the recommendation engine, we noted a marked difference between the language that fintech companies use to describe their products and outcomes, and the language that practitioners use to describe financial security and financial products. On this topic, Change Machine will continue to gather feedback from practitioners to better understand how practitioners talk about products in relation to financial security with their customers, and to identify where language can be simplified and streamlined so as to help practitioners more readily spot products that can provide value to customers.

Going in, we knew that “financial security” is a vast, complex and dynamic concept. It’s why we created a taxonomy of all of the conceivable action steps that can possibly affect an outcome. A detailed and comprehensive outcomes framework means that it is versatile enough to be aligned with other social service missions. In the context of the recommendation engine, that means aligning our concrete, pragmatic framework with tools that are meant to be used outside of the coaching session.

One feature of the product recommendation engine is a matching tool that maps fintech products and services with customers based on a range of customer-level inputs, such as number of coaching sessions, financial goals, and financial security information related to assets, banking, debt, credit, and taxes. We have learned that there may be instances in which the practitioner and customer decide to adopt a product that did not surface by way of the matching tool.

This observation represents a tension between coaching and automation; namely, how can we design the engine to account for the independent discovery and adoption of products and services by practitioners and customers in coaching sessions, while also guiding practitioners and customers to right-time, right-place products? As we explore this tension, we are adjusting and augmenting matching features that might indicate specific products, while developing training tools to support the decision-making process without minimizing the power of the coaching relationship.

Change Machine embarked on this process with the belief in the primacy of lived experiences and the knowledge that customers are their own best experts. In the context of the recommendation engine, that means featuring products and services developed and run by people who have the lived experiences of our customers.

Fintech companies founded and run by Black and Brown women are grossly underrepresented and have a harder time keeping their doors open. We are interested in examining the ways in which fintech products and services developed and run by Black and Brown women perform among our customer base. In addition, we recognize the importance of introducing these types of products and services on the platform at higher rates, given the unique challenges that these companies face to staying in business.

Finally, there is a dearth of certain types of fintech products and services that we know are critical to building financial security among low-income customers, such as tax products. In New York State, for example, up to 40 percent of working families’ yearly

income derives from annual tax credits—a situation that has only been exacerbated by the ongoing pandemic. And yet there are almost no financial products to help households manage that volatility.

In the current landscape, there remains a lack of products available that are critical to building financial security, such as tax and banking products. In recent years, there has even been some controversy over existing tax products that have unnecessarily charged customers who should have qualified for free services.³⁷ Change Machine will explore ways in which we can use the information that we are gathering on the platform to support the development of more products that are known to work for the customers we serve.

Fintech companies should prioritize consumer financial security, in turn rendering their products and services more profitable, scalable, and marketable.

In the midst of COVID-19, the digital economy has no place for fintech companies whose products only serve to push marginalized consumers off the cliff. Some fintech products capitalize on existing structural barriers and systems rather than offering solutions. These companies offer a product that may appeal to consumers facing financial crises because they are “better” than alternative options. Yet they still come at great cost to the consumer and may even hinder their ability to build financial security in the long term. Instead, fintech companies should prioritize consumer financial security, in turn rendering their products and services more profitable, scalable, and marketable.

Endnotes

- 1 KPMG, 2020, *Pulse of Fintech H2 2019*, Retrieved from: <https://home.kpmg/xx/en/home/campaigns/2020/02/pulse-of-fintech-h2-19-us.html>
- 2 4, NCRC, 2016, *Home Mortgage Lending: St. Louis, Milwaukee, Minneapolis and Surrounding Areas*, Retrieved at: <https://ncrc.org/wp-content/uploads/2018/01/Home-Mortgage-Lending2.pdf>
- 3 Federal Reserve, 2019, *Report on the Economic Well-Being of U.S. Households in 2018*, Retrieved at: <https://www.federalreserve.gov/publications/files/2018-report-economic-well-being-us-households-201905.pdf>
- 4 25, Federal Reserve, 2019, *Report on the Economic Well-Being of U.S. Households in 2018*, <https://www.federalreserve.gov/publications/files/2018-report-economic-well-being-us-households-201905.pdf>
- 5 St. Louis Fed, 2019, *Fast Cash and Payday Loans*, https://files.stlouisfed.org/files/htdocs/publications/page1-econ/2019/04/10/fast-cash-and-payday-loans_SE.pdf
- 6 Baradaran, Mehrsa, *Emory Law Journal*, "How the Poor Got Cut Out of Banking," <https://law.emory.edu/elj/documents/volumes/62/3/articles/baradaran.pdf>
- 7 Urban Institute, 2012, *Weathering the Recession*, <https://www.urban.org/sites/default/files/publication/25686/412626-weathering-the-recession-the-financial-crisis-and-family-wealth-changes-in-low-income-neighborhoods.pdf>
- 8 Philadelphia Fed, *A Survey of Fintech Research and Policy Discussion*, 2020, <https://www.philadelphiafed.org/-/media/research-and-data/publications/working-papers/2020/wp20-21.pdf>
- 9 FDIC, *National Survey of Unbanked and Underbanked Households (2017)*, <https://www.fdic.gov/householdsurvey/2017/2017execsumm.pdf>
- 10 FDIC, 2014, *Assessing the Economic Inclusion Potential of Mobile Financial Services*, <https://www.fdic.gov/consumers/community/mobile/Mobile-Financial-Services.pdf>
- 11 EY, *Global FinTech Adoption Index 2019*, https://www.ey.com/en_gl/ey-global-fintech-adoption-index
- 12 Financial Health Network, *Financially Underserved Market Size Study 2019*, <https://s3.amazonaws.com/cfsi-innovation-files-2018/wp-content/uploads/2020/01/31170215/2019-Market-Size-Report.pdf>
- 13 KPMG, 2020, *Pulse of Fintech H2 2019*, <https://home.kpmg/xx/en/home/campaigns/2020/02/pulse-of-fintech-h2-19-us.html>
- 14 EY, *Global FinTech Adoption Index 2019*, https://www.ey.com/en_gl/ey-global-fintech-adoption-index
- 15 U.S. Census, *Computer and Internet Use in the United States: 2016*, <https://www.census.gov/content/dam/Census/library/publications/2018/acs/ACS-39.pdf>
- 16 Pew Research Center, "Digital gap between rural and nonrural America persists," <https://www.pewresearch.org/fact-tank/2019/05/31/digital-gap-between-rural-and-nonrural-america-persists/>
- 17 *Harvard Business Review*, "Fintech Companies Could Give Billions of People More Banking Options," <https://hbr.org/2017/01/fintech-companies-could-give-billions-of-people-more-banking-options>
- 18 Baradaran, Mehrsa, *Emory Law Journal*, "How the Poor Got Cut Out of Banking," <https://law.emory.edu/elj/documents/volumes/62/3/articles/baradaran.pdf>
- 19 Bartlett, et al., "Consumer-Lending Discrimination in the FinTech Era," <https://faculty.haas.berkeley.edu/morse/research/papers/discrim.pdf>
- 20 NY Attorney General, 2019, <https://ag.ny.gov/press-release/2019/attorney-general-james-leads-coalition-21-state-attorneys-general-urge-consumer>
- 21 Center for Community Capital, *Catalyzing Inclusion: Financial Technology & the Underserved*, 2017, <https://communitycapital.unc.edu/files/2017/10/FinTech-Report-Final.pdf>
- 22 National Consumer Law Center, *Fintech and Consumer Protection: A Snapshot*, 2019, <https://www.nclc.org/images/pdf/cons-protection/rpt-fintech-and-consumer-protection-a-snapshot-march2019.pdf>
- 23 FDIC, "FinTech and Consumer Financial Well-Being in the Information Age," 2019, <https://www.fdic.gov/bank/analytical/fintech/papers/carlin-paper.pdf>

- 24 *European Economy, Fintech Banking. Friends or Foes?*, 2017, https://blog.iese.edu/xvives/files/2018/02/EE_2.2017.pdf
- 25 St. Louis Fed, "Banking Deserts Become a Concern as Branches Dry Up," 2017, <https://www.stlouisfed.org/publications/regional-economist/second-quarter-2017/banking-deserts-become-a-concern-as-branches-dry-up>
- 26 New York Fed, "Banking Deserts, Branch Closings, and Soft Information," 2016, <https://libertystreeteconomics.newyorkfed.org/2016/03/banking-deserts-branch-closings-and-soft-information.html>
- 27 Allen et al., "The Foundations of Financial Inclusion: Understanding Ownership and Use of Formal Accounts," *Journal of Financial Intermediation*
- 28 Ibid.
- 29 Pew Trusts, *Payday Lending in America*, 2012, https://www.pewtrusts.org/-/media/legacy/uploadedfiles/pca_assets/2012/pewpaydaylendingreportpdf.pdf
- 30 Urban Institute, *An Evaluation of the Impacts and Implementation Approaches of Financial Coaching Programs*, 2015, <https://www.urban.org/sites/default/files/publication/71806/2000448-An-Evaluation-of-the-Impacts-and-Implementation-Approaches-of-Financial-Coaching-Programs.pdf>
- 31 FDIC, *Opportunities For Mobile Financial Services To Engage Underserved Consumers*, 2016 https://www.fdic.gov/consumers/community/mobile/mfs_qualitative_research_report.pdf
- 32 "Banks Should Face History and Pay Reparations," 2020, <https://www.nytimes.com/2020/06/26/opinion/sunday/banks-reparations-racism-inequality.html>
- 33 Deloitte, *Beyond COVID-19: New opportunities for fintech companies*, 2020, <https://www2.deloitte.com/us/en/pages/financial-services/articles/beyond-covid-19-new-opportunities-for-fintech-companies.html>
- 34 Center for Community Capital, *Catalyzing Inclusion: Financial Technology & the Underserved*, 2017, <https://communitycapital.unc.edu/files/2017/10/FinTech-Report-Final.pdf>
- 35 Urban Institute, *Leveraging Fintech for Financial Health*, 2020, https://www.urban.org/sites/default/files/publication/102404/leveraging-fintech-for-financial-health_0.pdf
- 36 Urban Institute, *An Evaluation of the Impacts and Implementation Approaches of Financial Coaching Programs*, 2015, <https://www.urban.org/sites/default/files/publication/71806/2000448-An-Evaluation-of-the-Impacts-and-Implementation-Approaches-of-Financial-Coaching-Programs.pdf>
- 37 *ProPublica*, "The TurboTax Trap," 2019, <https://www.propublica.org/article/inside-turbotax-20-year-fight-to-stop-americans-from-filing-their-taxes-for-free>