IRRATIONAL LABS

AI Disruption in Finance

Behavioral Science Insights on Trends, Influencers, & Challengers

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There's no doubt that AI is poised to disrupt and transform human life in the next 5-10 years—and perhaps much sooner.

Even before ChatGPT burst onto the scene, the marriage of fintech and AI gave rise to a new wave of financial services that disrupted the status quo and challenged established institutions. GPT-4 has only intensified the race to apply AI to fintech in transformative ways. From banking and investing to payments and insurance, fintech apps are using generative AI to streamline processes, enhance security, and provide insightful recommendations, empowering individuals and businesses to manage their finances more effectively.

From a behavioral science perspective, we're most excited about the consumer opportunities to help people manage their money and feel better about what they have (and don't have) to spend—and how they will get more money.

Where We Were

In the not-so-distant past, fintechs like Mint and Clarity aimed to provide spending insights based on your transactions. You'd receive notifications stating things like, 'You spent $314 on food this month.' But let's be honest: those insights often felt a bit off. More often than not, transactions weren't coded correctly or took significant effort to correct systematically, leaving you second-guessing the accuracy and losing trust in the service. Furthermore, these insights were confined to the past, offering little guidance for your current or upcoming spending decisions.

Yes, you could sync your bank account with the latest budgeting app or invest $1,000 in stocks with just a few clicks, but you didn't really rely on these tools to fully help you with your financial management—unless, of course, you had a great deal of extra time on your hands. As a result, most of the burden of decision-making (How much to spend on your vacation? How much to invest in risky assets?) was on you.

Where We're Going

The promise of AI within consumer fintech is exciting—and here's why. As behavioral scientists, we know that when you make something easier, people do it more. Studies have demonstrated that simplifying complex financial decisions, such as retirement planning or investment choices, increases participation and engagement. Breaking down complex options into small, manageable steps—and providing clear information, defaults, and simple choices—renders individuals more likely to make informed decisions and take action.

It follows that if we make financial management easier, more people are likely to get on board. Right now, financial management is relegated primarily to those who want to either A) outsource it, or B) log in weekly to check their transactions on Mint or trade stocks on Robinhood. But with AI-based help available at little to no cost, we can shift the burden of financial decision-making away from landing wholly on individuals. This could enable everyone to be more involved in managing their finances—with less work. As behavioral scientists, we love this.

3 Ways We Think It Could Play Out

1) More Forward-Looking Personalized Recommendations

These would not only analyze your past spending, but also account for your unique financial situation and goals. Instead of simply presenting you with pie charts of past transactions, AI could give proactive, forward-looking guidance on what you should be spending today or in the upcoming week.

2) Virtual Assistants

Imagine AI helping you make spending and savings decisions in real time, like someone who is trained on your bank accounts, debt, and overall ambitions—and is always available to respond to your questions. We're basically going back in time to when you knew your financial planner personally, had them over for dinner, and could give them a ring whenever you wanted. You'll be able to do that again—but this time, with your own personal AI-assistant.

There's no limit to the questions you could ask—for example:

- 'How much should I allocate for my monthly savings based on my current financial situation and goals?'
- 'What's my current spending limit for groceries this week? How much more can I spend?'
- 'Are there any subscriptions I'm paying for that I can cancel or downgrade to save money?'
- 'What's my progress toward my down-payment goal for a house?'
- 'Should I go ahead and make this purchase or wait until my next paycheck?'
- 'Can you provide insights on my recent spending patterns and identify areas where I can cut back?'

Of course, a patchwork of apps could do some of these things for you—but not all in one place, and not to the level of follow-through that a true assistant will. Consider the task of managing your subscriptions. Sure, TrueBill (now RocketMoney) could cancel unused subscriptions for you—but it certainly couldn't up/down-level subscriptions or find alternatives without ever leaving a single screen. That's what we mean by a true virtual assistant model.

3) A 'Move It For Me' System

Instead of just advising people to 'save more,' AI-based tools could help them actually do it. The industry got a small taste of AI's potential here from Digit, a fintech app recently acquired by Opportun. Digit automatically withdrew a small amount of savings each day from your account based on your upcoming expenses and income. They didn't just offer you personalized advice—they 'did the thing' for you.

Will Mint and other financial planning apps start acting on behalf of their users? Maybe—and we hope they do! More likely, though—and sooner—we think we'll see this 'move it for me' behavior from top wealth management platforms like Robinhood, Betterment, and Wealthfront.

They're already called 'Robo Advisors,' so this is likely their time to shine.

But which ones will jump in?

Our guesses:

Yes for Wealthfront. Wealthfront goes beyond just incorporating AI into tax loss harvesting and auto-rebalancing. They even provide decision-making aides that help you not only plan for retirement (or your other financial goals), but also manage your finances with minimal intervention from YOU, based on your actual account activity, your goals, etc. Take Self-Driving Money, for instance. Deposit your paycheck with Wealthfront and its algorithm will determine the best path for your dollars. It'll help you beef up your emergency savings fund and allocate the rest to where it can earn the best risk-adjusted return.

Their business model depends on the success of their automated, self-service tools. Unlike other platforms, they offer NO human counterpart to answer your questions. So they're putting all their eggs in this basket.

Maybe for Robinhood. On Robinhood's Q1 2023 earnings call, Co-Founder and CEO Vlad Tenev told investors: 'Every company will have to transition into an AI company.' So the commission-free trading app likely has a lot cooking—but we haven't yet seen these features.

No for Betterment. Betterment consciously kept AI out of its consumer-facing investment offerings a year ago because they found that other, simpler models worked better. But in light of ChatGPT's rise, they may already be changing their tune and incorporating generative AI in more of their services. So, we are hopeful.

Of the top wealth management platforms, Betterment has always been the friendliest and most open to using behavioral science principles to make money management easier. For example, 4 years ago, they launched a clever 'Two-Way Sweep' feature that uses an algorithm to automatically analyze and move excess cash between an investor's checking account and Betterment's Smart Saver account. Naturally, we feel optimistic that they will use generative AI in innovative ways.

And… Who? There's a new kid on the block: Magnifi. They promise to 'invest with intelligence,' which seems to mean they use generative AI to offer personalized investment advice. Framed as an AI-powered portfolio mentor, Magnifi's CEO says they want to act as 'a copilot for the self-directed investor.' We're watching them closely. Thanks to their nominal flat fee and low-friction linking of your existing brokerage accounts with other robo-advisor platforms, they could use generative AI in sympathetic ways. Who wouldn't want to have been able to ask in lay terms, for instance, how Silicon Valley Bank's collapse would affect their portfolio—and get an instantaneous, detailed response in a familiar ChatGPT-like interface?

If these platforms do move forward with incorporating AI, they'll likely use it to offer behaviorally-informed financial insights.

Imagine if an app could recognize patterns of impulsive trading and remind you—at the moment you're considering your next trade—to think about your long-term goals before rushing into a hasty decision. It would be like having Jiminy Cricket on your shoulder to help you make more thoughtful choices for your long-term financial future.

And what are we most excited for?

Fewer fees.

Given that AI will improve the capability for robo advisors in general, this should put pressure on normal (human) financial advisors to bring down their fees.

3 Things We Worry About

1) Bias in Lending Could Increase

Fintech companies are reducing biases associated with traditional credit scoring by analyzing a vast array of data sources and using machine learning. This could promote financial inclusion and break down the barriers that have held some individuals back. But, bias also could (and more pessimistically, will) be built into the models if we're not careful.

For example, credit scoring models may use proxy variables that indirectly correlate with creditworthiness but are influenced by factors that introduce bias. For example, using zip codes as a proxy for socioeconomic status can perpetuate racial or economic biases.

2) Fraud Could Get Worse Before It Gets Better

Generative AI can be exploited to convincingly impersonate trusted individuals and enable scammers to coax sensitive information from loved ones using voice cloning. The government is pressuring Zelle to solve this, and Zelle is passing that pressure onto the banks. And although FedNow just launched its end-to-end payments solution this month, we'll have to wait to see how their built-in security features actually impact fast fraud. Our guess? The problem is still likely to get worse before it gets better. Nevertheless, we're cautiously optimistic that identity verification apps may provide the answer through their own investments in AI.

3) Big Unknown. How Will the SEC Regulate AI Advice?

Why don't some fintech apps give advice now? In the United States, the provision of investment advice is regulated by the Securities and Exchange Commission (SEC) under the Investment Advisers Act of 1940. According to this act, individuals or firms that provide investment advice for compensation are generally required to register as investment advisers with the SEC, unless they qualify for an exemption.

Fintech platforms that provide personalized investment advice would likely be subject to these regulatory requirements. They would need to evaluate whether their services meet the definition of investment advice under the law and determine if they qualify for any exemptions from registration. Although platforms that are purely robo-advisors are obviously not exempt, the situation is more unclear for new platforms built off of LLMs and operating in more gray areas, such as Magnifi (or even ChatGPT, if asked directly for advice).

3 Companies We're Watching—& Why

1) Plaid

Plaid is THE data aggregator that allows the hundreds of banks and fintechs they support to execute financial transactions. To continue to succeed in a dynamic financial services landscape being rocked by AI, they'll need to hook into even more data sources—additional banks, insurance providers, lenders, etc. to support better and more complete categorization of transactions (e.g. entertainment vs. clothing) that will enable fintechs and their users to have better insights into their total spending and saving patterns.

While this aspect of Plaid's strategy may be obvious, something that's a bit more interesting is some of the recent partnerships they've formed. Take the one with Scienaptic, for example. This is an AI-powered credit decision platform that hooks into Plaid and uses their data to make calls on whether individuals are credit worthy or not. Seems great for lenders, and perhaps a little scary for consumers given the wealth of spending data passing through Plaid's platform. But, more optimistically, for those traditionally underbanked, this could also lead to more approvals with less risk. We'll have to see how this plays out.

2) Zillow

Homes are the biggest thing we spend money on—other than kids. Zillow has always been nice to agents and supported their 6% fees. Will that change? We hope so. AI could obviously take the job of real estate agents, but it will need the support of the biggest platforms, like ZIllow, to make this transition go faster.

3) Lemonade

We're rooting for them, but we're also curious how the market will evolve. Traditionally, insurance companies have been slow at processing claims. Lemonade made their mark by being faster and simpler. Will they lose some of their lead if other insurance companies start using AI to process claims?

While interesting companies are already on the scene, we're fully expecting new entrants to come in and stir things up across various sub-sectors. Take TaxGPT, for example, which helps people file their taxes faster by walking them through a simple question and answer flow for free while also maximizing their returns.

Other areas where we see potential for disruption:

1. Removing friction for borrowers. This could be done, for example, by helping people more efficiently compare for the most favorable loan rates and conditions across a broad spectrum of lenders. Think 'Kayak' for loan shopping, but with a ChatGPT-like interface where you can get advice tailored to your financial situation.

2. Using collaborative filtering to build robust financial plans. For instance, AI could enable financial advising and planning services to be more than day-trading 'co-pilots' by helping users plan their finances based on what similar users have done before. Think: real asset advising, retirement strategies, tax planning—all done using a simple, conversational interface that's lay-friendly.

AI in the Future of Fintech: What It All Means

To sum it all up, AI's potential in financial services, when combined with insights from behavioral science, is powerful. We'd bet our last dollar on the fintech players that appreciate and accommodate for human behavior, preferences, and biases at play when using AI to design products that help us earn, save, and spend our money.