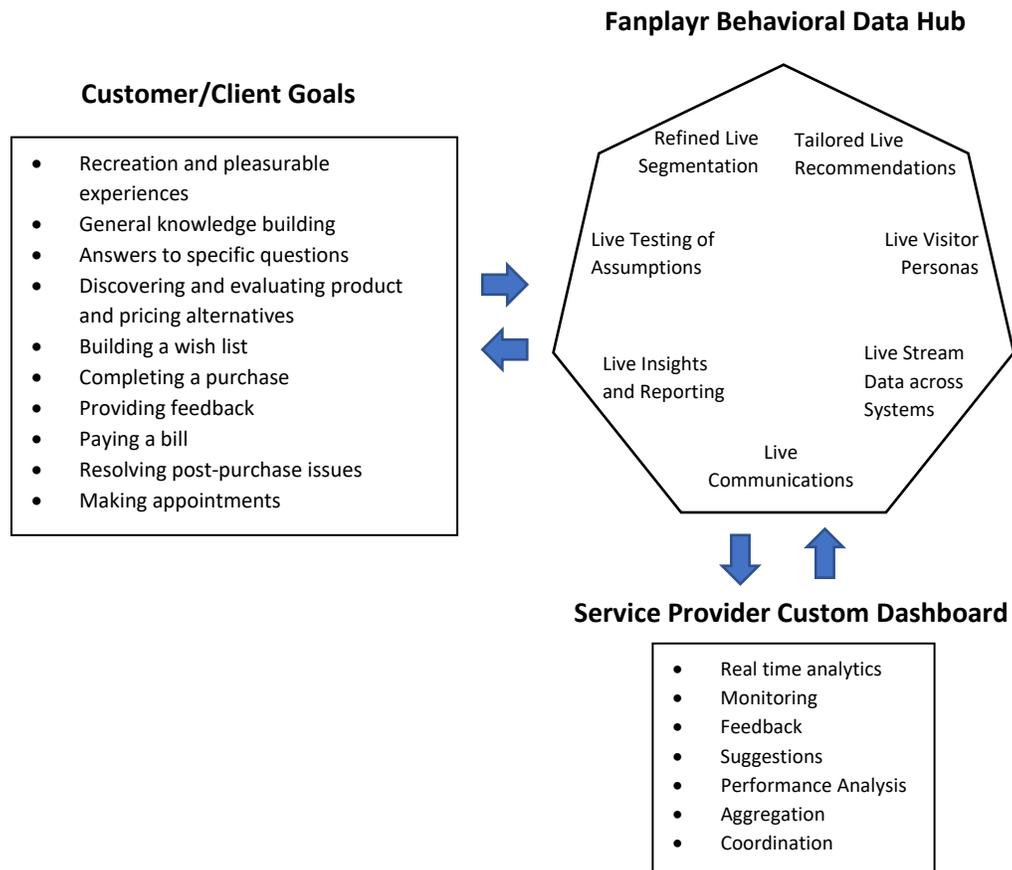


# Banking after COVID-19: Remaking Customer Journeys

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## 1. Introduction

In the context of the digital age, financial services have some paradoxical properties. All financial records and transactions can potentially be digitized. But at the same time, dealing with money raises concerns about risk and security, making trust a major factor, and human interaction vital. Before the COVID-19 pandemic, transitions to the digital world were proceeding in a natural way. Younger people were at the forefront of moving to all-digital banking and payments, and many others had shifted some aspects of their financial lives in that direction, particularly routine billing and payments.

The pandemic has disturbed this progression. Customer journeys to bank branches are no longer a straightforward option. Websites and phone lines are bearing the brunt of a new variety of customer interactions. Phone calls from customers are subject to delayed responses, as bank employees also struggle to adapt to a different workflow and level of information access. Meanwhile, bank websites are particularly poorly equipped to serve customers hitherto unfamiliar with their features.<sup>1</sup>

A recent report from McKinsey (Bensley et al., 2020), *Remaking banking customer experience in response to coronavirus*, brings out many of the challenges facing bank customers and employees. The report highlights the problem for banks, noting that “Many banks struggle to increase digital adoption among their customers” (Bensley et al., 2020, p. 2). Why is this so?

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<sup>1</sup> For economy of exposition, we refer to websites when discussing digital access, but the points made should be taken as carrying over to mobile apps as well. One difference is that a user of a mobile app is already identified as a customer, whereas website visitors can be existing customers as well as potential new customers or non-customer browsers. There can also be differences in demographics and use patterns, since younger customers are more likely to use mobile apps, as well as digital tools more generally, and likely to use these apps for a broader array of tasks.

Just two lines later in the report, the other side of the challenge is noted, “In normal times, many customers struggle with the transition to digital.”<sup>2</sup>

This paper provides insight into the two-sided struggle highlighted by the McKinsey analysis. In the next section, we review the current situation facing banks and their customers, including those who are already experienced online, but not being well served. The third section explains the tools available to meet these twin challenges of banking (and other financial services) in a world where the pandemic is forcing accelerated digitization. The final section concludes with some lessons and prospects for the immediate future: it answers the question, “How will physical customer journeys be replaced and supplemented by productive, rewarding digital journeys?”

## **2. Challenges of Digital Banking**

Financial services are complex and heterogeneous, but vitally important in people’s lives. Some financial tasks, such as viewing monthly statements or bill payment, are routine and can be digitized and automated in a straightforward manner. Others, such as choosing a credit card or applying for a loan, may involve difficult and complicated calculations. In general, managing one’s financial assets is one of the most challenging aspects of people’s lives. All of this means that banking and other financial services are not in the same category as the kinds of commercial activities that have more easily shifted online, to sites such as Amazon.com. Bank branches have slimmed down, and some have closed, but there has been nothing on the order of the “retail apocalypse” (Duprey, 2019; Singh, 2019) that online sellers like Amazon have precipitated.<sup>3</sup>

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<sup>2</sup> For mobile banking apps, a specific analysis of issues of adoption, and of usability or quality of user experience, is in Entersekt-PYMNTS (2020). For example, in a census-balanced survey of 5,330 US adult consumers, the study “found that 42.6 percent say they do not use the apps because they do not like their apps’ user experiences.”

<sup>3</sup> Houses, and to some extent cars, are two exceptions to the retail apocalypse, but neither market was ever organized as a standard retail market. Car dealers have been protected by state regulations and manufacturers’ relationships, while housing markets have relied on specialized brokers, also with some legal protections. In both cases, the complexity of the product and size of the purchase made human intermediaries and physical inspection important components of the market, although a significant

The different characteristics of financial services versus standard shopping have led to two distinct kinds of dichotomies. The first dichotomy is in types of financial services. As noted, many routine financial tasks had been moving steadily to a digital, more automated realm, whereas more complex decisions still relied heavily on human interaction and human expertise. The second dichotomy is generational: the generational digital divide was perhaps wider than in any other sector of the economy. Younger people, having more familiarity with digital tools, and less financial complexity to manage, had lower entry barriers to adopting digital banking, and from there they could learn by doing. Older people have been more likely to have higher costs of switching to digital – both cognitive, and because of longer and more complex financial histories. And without adoption, there can be no learning curve.

The McKinsey report illustrates these dichotomies, although it does not relate them to customer age. The data it highlights are from a somewhat focused survey, measuring frequency of use and satisfaction with using a mobile app for deposit products. The most common frequencies (each reported by one-third of respondents) were “more than once a week” and “never or almost never.” The intermediate categories (more than or less than once a month) together accounted for the other third of the respondents. Tellingly, these intermediate frequencies, especially those using the mobile app less than once a month, had the lowest satisfaction rate, lower than those who avoided using the digital tool.

The lesson drawn in the McKinsey report is quite clear (Bensley et al., 2020, pp 2-3): “customers go through a learning curve as they adopt digital tools, and most banks under-support their customers in the adoption journey. In the current environment, banks should redouble their efforts to smooth customers’ transition to digital.” The recommendations are, at a high level, straightforward (p 3): “Effective approaches will include easy-to-find and clear communication, segment-specific campaigns, remote coaching and advice, and coherent experiences across each journey (for example, written and video explanations for how to accomplish specific digital

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portion of the search processes had moved to the digital realm. But the pandemic has already made purely online car purchases more common.

tasks, along with ways to try them out, rather than a one-size-fits-all tutorial disconnected from the tools themselves).”<sup>4</sup>

While the McKinsey report focuses on US data, one can make similar observations about other countries, whether in Europe, Latin America, Asia or Africa. To provide one example, the United Kingdom (UK) is characterized as a global leader in digital banking, thanks to a supportive regulatory environment and a culture of innovation in this area. About 12 million people in Britain have accounts with digital-only banks (Barton, 2020), and 83% of the nation’s close to 6 million small-to-medium sized enterprises use mobile banking (Bank of England, 2019). Thus, according to Ed Lane of nCino, a Fintech solution provider (Lane, 2020), “both the UK’s consumers and businesses have come to expect a seamless digital experience whether banking personally or applying for a business loan.”<sup>5</sup>

There is a much larger strategic conversation that is occurring in the context of digitizing financial services, including banking, especially in the context of the economic disruptions triggered by COVID-19. This discussion is all-encompassing, including the role of branches, the skill sets of employees, and end-to-end technology system updating.<sup>6</sup> This is an important

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<sup>4</sup> Another McKinsey report (Adarkar, et al., 2020a) provides additional recommendations at a general level, many of them focused on training and supporting employees for working at home and for taking on new tasks. Customer-centered recommendations included targeted analytics, financial-fitness tools, and increasing the use of digital channels for customer engagement.

<sup>5</sup> The Bank of England (2019) report on the future of finance provides data and comparisons for many countries, as well as mentions or discussions of innovations in Canada, China and Japan.

<sup>6</sup> For example, see Shilling, et al. (2020) and Biswas, et al. (2020). When people refer to “Fintech,” they are invoking all the layers of technology that comprise a digital strategy in the financial services sector. There are many hundreds of companies, tackling various pieces of the puzzle. To take just one example, Ovamba, a Maryland-based company founded in 2013, offers this to retail and commercial banks, “[Our] solutions are designed to be quickly assembled to meet every stage of a bank’s strategic journey. The right tools enable banks to execute the appropriate response to planned changes, respond to customer demand and even disaster-level disruptions. These solutions help banks to maintain regulatory compliance, protect assets and customers’ sensitive data” – see <https://www.ovamba.com/commerical-retail-banks-1>. It is also important to distinguish between Fintech companies and companies such as Fanplayr: the latter offers sector-specific tools for managing customer/client/visitor journeys in multiple verticals, including retailing, telecommunications and utilities, as well as financial services. Some Fintech companies are retail service providers, directly competing with traditional banks and brokerages: a well-known example is Robinhood, which focuses on stock-trading. A very specific service focus like this does not eliminate the benefits of software such as Fanplayr’s Behavioral Data Hub, which is described in the next section.

conversation, but it runs the risk of masking the possibility of immediate, economical and flexible solutions to improving digital customer engagement in banking. This possibility is explicated in the next section, and the larger issues are tackled in the concluding section of this paper.

### **3. Tools for a Digital Path Forward**

While financial services are more complex and heterogeneous as a category than purchases of physical products, there are commonalities with respect to the general nature of customer or client journeys. In all cases, customers seek information, weigh alternatives, try to complete tasks, want specific questions answered, and so on. Successful digital tools are ones that quickly “understand” what customers want to accomplish through their dynamic online behavior. An apt characterization of the approach that is needed is in a tag line from Silicon Valley’s Fanplayr: Making Behavioral Data Actionable. How that is best done is the subject of this section.

The actions taken are meant to be those that satisfy customer, client and other visitor objectives. If the result is more effective “conversion and care,” then the seller’s bottom line benefits, either immediately (conversion) or in the future (care). The COVID-19 pandemic is likely to fundamentally change how consumers view the trade-off between remote and in-person interaction. Phone communications are one channel for remote interactions, but they lack important visual components, and in many respects fall between the two stools of human contact and digital technology. Finally, behavioral data refers to what the customer or visitor does on the bank’s website.<sup>7</sup> If an existing customer has logged in, then other background data will be available to guide digital responses. But the problem of non-transparent third-party collection of data by a few giant firms, with all its privacy concerns, is avoided.<sup>8</sup> Regulatory

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<sup>7</sup> Again, this discussion extends to mobile apps for existing customers. Furthermore, as noted in the previous footnote, the advantages of software such as a Behavioral Data Hub (described later in this section) extend to all kinds of customer-facing financial services providers, including Fintech innovators, and not just traditional banks.

<sup>8</sup> These privacy concerns are already affecting laws in major markets such as the European Union, Japan, and the most populous US state, California. De Groot (2019) summarizes the new European Union

developments strongly favor the use of behavioral data that is collected in first-party contexts, after a user has already come to a specific seller or service provider website (whether to implement specific actions or to explore): this setting can be thought of as the “digital last mile” (Singh, 2019). Using this dynamic, real-time data intelligently and effectively in the new privacy environment underlies the concept of making behavioral data actionable.<sup>9</sup>

Several years ago, Gartner Research described the idea of a Customer Engagement Hub (CEH), an integrated “system of systems” of software tools, including tools for “managing and optimizing personalized customer interaction.”<sup>10</sup> Achieving this central goal requires what Fanplayr, for example, calls a Behavioral Data Hub (BDH). Indeed, the centrality of live behavioral data is brought out by the term BDH. How this data is to be used is illustrated in general form in Figure 1. The illustration also highlights other important considerations, including flexibility of purpose (multiple goals illustrated on the left) and ease of use (a customized seller dashboard connected to the BDH). This flexibility has to be achieved in the focused context of the digital last mile, and without sacrificing ease of use. An approach that is behavioral-data-driven makes this possible.

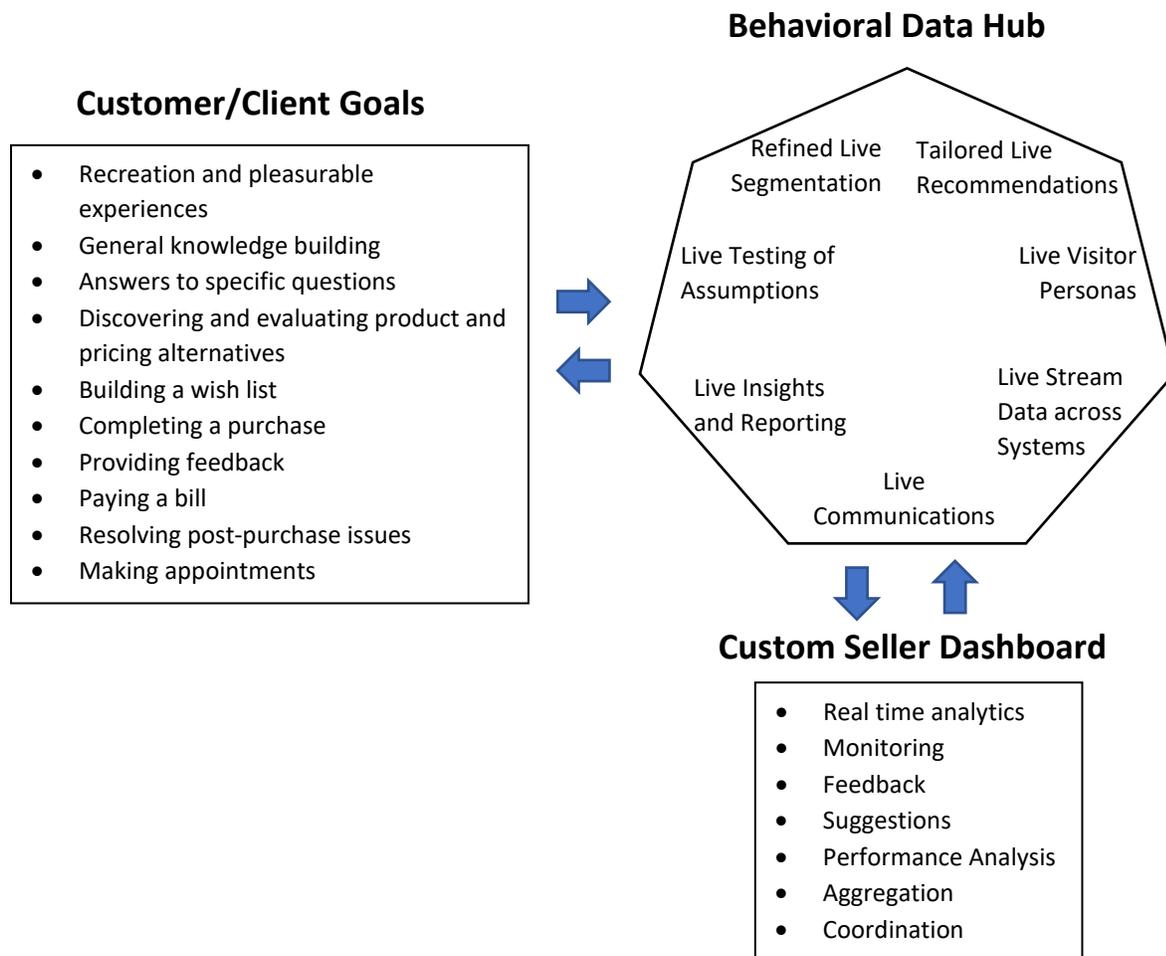
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regulations, including provisions requiring explicit consent and anonymization, among other individual protections, along with stiffer penalties for compliance failures, and global implications. The EU’s own site (eugdpr.org) is very blunt about the changes: “The EU General Data Protection Regulation (GDPR) is the most important change in data privacy regulation in 20 years. The regulation will fundamentally reshape the way in which data is handled across every sector, from healthcare to banking and beyond.” A translated version of Japanese digital privacy laws can be found at: <http://www.japaneselawtranslation.go.jp/law/detail/?id=2781&vm=04&re=01>. California’s Consumer Privacy Act, which took effect on January 1, 2020, has been described as “the toughest data privacy law in the U.S.” See: <https://www.npr.org/2019/12/30/791190150/california-rings-in-the-new-year-with-a-new-data-privacy-law>.

<sup>9</sup> Rajiv Sunkara, CTO of Fanplayr, describes the emerging privacy situation, “While privacy protections have existed for many years and seemed enough to achieve their privacy goals, the change in technology, use cases and the proliferation of tracking services have caused browsers [referring to software] to step-up their drive against such tracking.” Furthermore, “Every browser vendor has taken a different approach in their implementation of tracking prevention. One thing consistent between them is that they are all making it increasingly difficult to track a user’s journey across sites.” The source of these quotes is from a private communication, used with permission.

<sup>10</sup> The phrases are from Gartner research director, Olive Huang, quoted in Goasduff (2016). See also Singh (2020).

**Figure 1: Improving Customer Journeys – The Behavioral Data Hub**



Source: Singh (2020), based on Fanplayr documents

In comparison to other nomenclature such as “experience optimization platform,” “customer engagement platform,” or the generic “personalization engine” (Polk et al., 2020), the BDH terminology puts the emphasis where it belongs, on behavioral data that is generated in the digital last mile, and analyzed and acted on with immediacy.<sup>11</sup> This allows for flexibility and

<sup>11</sup> Note that behavioral data allows for greater flexibility than “personalization,” if that term is interpreted as being tied to fixed personal characteristics. Alternatively, a focus on behavior allows for multiple, evolving aspects of individuals’ identities to be recognized and responded to. This difference complements the earlier discussion of use of people’s demographic data in ways that do not respect

sophistication in responses. What is omitted from Figure 1 is also important: the BDH is not an encompassing system of systems like the imagined CEH.<sup>12</sup> At the same time, it is not a single-action solution, such as for email retargeting or testing, where decisions on whether an action is taken or not have to be pre-committed. Nor is it cumbersome and labor intensive, difficult to mesh with existing information systems, or hard to manage.<sup>13</sup>

The software tools that implement the BDH or other platforms come under the broad heading of Artificial Intelligence (AI). Related terms that are relevant are machine learning, deep learning, data analytics and advanced analytics (AA), although the boundaries between the terms and techniques are not always clear.<sup>14</sup> The development of the tools that embody these ideas is the hallmark of the current phase of the digital network age (Singh, 2020), and the determinants of success will be the quality and focus with which they are designed and implemented.<sup>15</sup>

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privacy. The privacy issue is broader, because it addresses the use of behavioral data as well, when that is done in unsanctioned or non-transparent ways, such as leveraging online social interactions into commercial activities. Rajiv Sunkara (private communication) highlights the importance of the specifics of the technology: “Fanplayr is able to identify and track users in a more reliable manner than other providers. This identification provides our customers with a robust and consistent manner by which to identify users, segment and target them appropriately even when deemed anonymous by other services.”

<sup>12</sup> Of course, the BDH or any such software has to work across different devices (smartphones, tablets and laptops) and platforms (browsers and apps).

<sup>13</sup> For example, Polk, et al. (2020) comments: “While Dynamic Yield made improvements to measurement and reporting — especially for advanced users through a performance dashboard — client references cited issues with data transparency, particularly with visibility into how data is used and with verifying specific recommendations. They also reported bugs and difficulties with data queries for reporting across multiple campaigns.”

<sup>14</sup> The boundary between AI and more traditional optimization or analytics depends on the kinds of adjustment or self-correction (“learning”) that the software itself is capable of. For example, Biswas et al. (2020, footnote 1) offers this definition: “AI can be defined as the ability of a machine to perform cognitive functions associated with human minds (e.g., perceiving, reasoning, learning, and problem solving). It includes various capabilities, such as machine learning, facial recognition, computer vision, smart robotics, virtual agents, and autonomous vehicles.” On the other hand, Adobe Systems characterizes its Adobe Target enterprise tool as AI-based, but another perspective is that their use of analytics and optimization falls short of “true” AI. Biswas et al. (2020) handle this fuzziness by typically clubbing “Advanced Analytics” with AI or with machine learning (ML), referring to AA/AI or AA/ML.

<sup>15</sup> Arguably, the success of Google was built on the sheer quality of its search algorithm, and not on first mover advantage, marketing or other design features. For some discussion of Fanplayr and other similar firms along these dimensions of quality and focus, see Singh (2020).

The Bank of England's report on the future of finance makes the broader case for new digital tools quite eloquently (p. 56), "Advanced analytics and the emergence of artificial intelligence could transform how customers experience finance and the agility, efficiency and resilience of financial firms. But risks must be managed. Data and analytics could broaden access and increase customisation. They could also improve pricing of financial products for customers. But reaping these benefits will require the trust and consent of customers."

Figure 1 provides a generic perspective on customer, client or website visitor goals. We next describe the role of the BDH in the specific context of financial services. Financial services such as banking involve many of the same activities that a consumer would undertake in a retail purchasing context: seeking general and specific information, evaluating alternatives, completing transactions, paying bills, and providing feedback. Of course, these have different characteristics in the case of financial services (and all ongoing services in general, as opposed to episodic purchases). However, in addition, there are activities unique to financial services, or substantively different in nature.

In the abstract, financial services involve managing financial assets over time, including dealing with risks inherent in finance, such as fluctuations in asset values, or, in the extreme, chances of default or fraud. It is useful to provide concrete examples. Choosing a credit card involves weighing multiple factors such as annual fees, interest rates, credit limits, rewards, and so on. These can be more difficult to assess than features of physical products, requiring complex numerical calculations. Similar issues arise for mortgage loans, insurance policies, and a variety of saving and borrowing decisions. Someone with multiple credit cards and card balances may have to make repeated decisions about how to allocate payments beyond monthly minimums to the different cards.<sup>16</sup> Even the choice of how much to allocate to payment of card balances depends on weighing the impact on assets such as a checking account balance, or on future payments for non-retail loans (e.g., house, car, education).<sup>17</sup>

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<sup>16</sup> A version of this example is discussed in Biswas et al. (2020), in a section aptly titled, "Reimagining the customer engagement layer."

<sup>17</sup> In such cases, where the financial service is linked to a physical good or service, there may be value to what is now being broadly termed "open banking." This refers to explicit partnerships between financial

The unifying themes in these and other examples are complexity and continuity. Visitors who are not current customers may have needs that are simpler and more generic than the examples above, but there will still be an inherent complexity in the thought processes required that is different than in the case of most retail purchases. The implication is that careful attention to behavioral data, as captured in the BDH and its application to financial services, can matter enormously, especially when the use of demographic and third-party data for non-customers is restricted by new privacy regulations. In these contexts, even a simple first step, such as completing online information to set up a remote or in-person appointment with a human service provider, can be significantly affected.<sup>18</sup>

In the case of existing customers, a range of money-management services can be made more efficient by making behavioral data actionable, including combining that data with customer profile data where possible or helpful. Health insurance offers might be correlated with spending on fitness, smart alerts could be conditioned on the customer's portfolio balances, and, in general, savings and investment recommendations can be tailored to the client's concerns or goals as revealed by their navigation of a bank's website or mobile app.<sup>19</sup> Often, the current situation for banks and other financial services providers is that recommendations are insensitive to the customer's immediate concerns or goals, and increased use of behavioral data through automated, scalable software tools can reduce this rigidity and inefficiency.

As emphasized earlier, customer journeys in financial services can be complicated and heterogeneous. Figure 2 provides a stripped-down visualization of a simple case. Text in black denotes site visitor decisions, while blue italic text refers to the actions of software such as that

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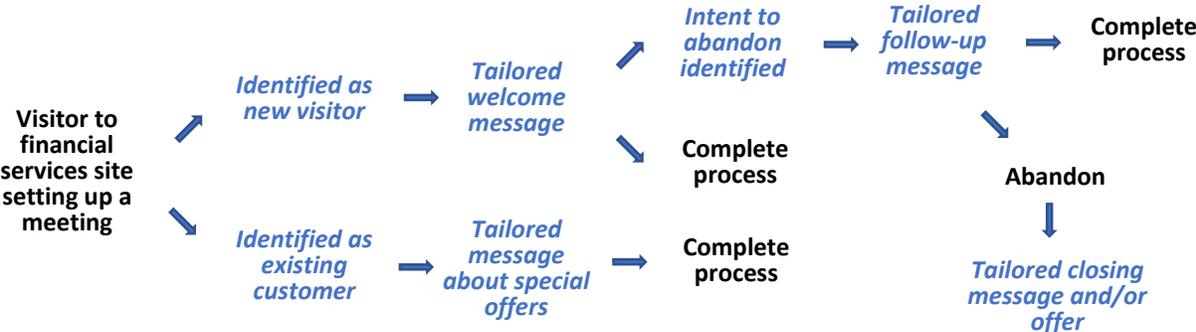
and nonfinancial firms, or possibly also banks and Fintech firms, for better integration of services and customer experiences. Distinct from the case of comprehensive personal data collection by online advertising and retail giants, such cases would involve informed consent by consumers, and control of data. The use of a tool such as the Fanplayr BDH is perfectly consistent with this "intermediate" privacy environment. For discussions of open banking and "banking ecosystems," see Accenture (2019) and KPMG (2019).

<sup>18</sup> For example, in the case of a large French financial services firm, among visitors to the website who showed signs of abandoning an online process of setting up a meeting, a significant fraction ended up completing the process in response to dynamic messaging triggered by the Fanplayr BDH. See also Figure 2 and the accompanying discussion.

<sup>19</sup> More generally, the use of AI in financial services is illustrated in Biswas et al. (2020), Exhibits 3 and 4.

encompassed in the Fanplayr BDH. Messages that are triggered by behavioral data can refer to possible offers, pose questions, posit solutions, and so on, depending on the “reading” provided by analysis of the behavioral data. They can be visually friendly, and appear as widgets that do not disrupt, but instead support, the site visitor’s experience. In practice, every website has some version of this kind of flow, and the key determinants of success are the speed and sophistication of segmentation and responses, the flexibility of adjustment, and the ease of monitoring and management of the tools.

**Figure 2: Remaking the Customer Journey – An Example**



Source: Adapted from Fanplayr documents, 2019

In various contexts, the actions triggered by the sophisticated analysis of the immediate behavioral data could include providing a link to a decision tool (e.g., for comparing mortgage options), offering to connect to a bank employee, or additional background information (e.g., about risk-reward tradeoffs in investing). The BDH is part of a new ecosystem that is likely to emerge as retail financial services embrace digitization after the pandemic.

**4. Lessons and Prospects**

The core question posed in the introduction was, “How will physical customer journeys be replaced and supplemented by productive, rewarding digital journeys?” Market research shows that, while digitization is already an important part of the financial services landscape, there is a long way to go. Many bank customers are uncomfortable with existing digital platforms and

services, and digital tools on websites and in apps need to be able to overcome unfamiliarity and complexity to get these customers on a learning curve. Remote advising presents an opportunity as well as a challenge, when the right digital tools are deployed effectively.

Even those users who are more firmly online are often underserved. There are opportunities to target lower income and younger consumers. As described in Adarkar et al. (2020b, p. 5), a European bank realized that the “mass-affluent home-buying population” was underserved, and “trained its remote advisors to offer customers targeted advice at key decision points in the home-buying journey.” AI-driven tools such as the Fanplayr BDH can help remote advisers identify those in a segment who are “in the market” for such advice, they can help these advisers tailor the advice, and can guide them at multiple points of a customer journey, helping the customer overcome specific pain points. Not only can such tools lead to “granular understanding of [customer] journeys,” but they also support a process of “continuous improvement” (Biswas et al., 2020, p. 11).

Finally, it is important to recognize that there are two levels of the answer to the core question posed in this paper. In analyses such as Adarkar et al. (2020b) and Biswas et al. (2020), the task of improving the quality of customer journeys in banking and other financial services is embedded within larger strategic perspectives of rebalancing between physical branches and digital access, and significant retraining and redeployment of employees. Purely on the digital infrastructure front, the vision is one of a holistic redesign and upgrading of information technology systems, from those that are customer-facing to all the components of back-end infrastructure.

All of the larger vision is important, and will happen over time, as consumer-facing financial services are irreversibly transformed by greater use of digital technology. But there is a second level of the answer to the question, which does not rely on this massive, resource-intensive transformation. Software tools such as the Fanplayr Behavioral Data Hub are an economical, flexible answer to the core question that do not rely on costly systemic changes. The difference is similar to, but even greater than, that between the BDH and the Customer Engagement Hub, imagined by Gartner, which remains mostly a vision to be pursued. On the other hand, the BDH

and similar software offerings provide immediate solutions to the challenge of improving customer journeys in banking and other financial services. They are a vital first step in the larger transformation that will occur in the coming years.

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