



**White Paper**

How Digitalization Is Reshaping Wealth Management



# How Digitalization Is Reshaping Wealth Management

Digitalization is essential to creating “intelligent experiences” in wealth management that are intuitive, real-time and personalized. Financial institutions must make digital a priority to stay competitive and optimize the user experience for the next generation of wealth managers and their clients. Artificial intelligence and robotic process automation will help drive significant increases in productivity and efficiency, and forever change how clients interact with wealth managers. If financial institutions can follow a strategic game plan, they stand to gain significant competitive advantages.

Digitalization is leveling the playing field, making financial advice accessible to everyone. Whether you’re just starting to invest, part of the “mass affluent,” or meet regularly with an advisor, digital tools have provided a way to assess your financial health and plan for long-term goals. While digitalization promises to change the way we invest even more, it is part of a much larger trend that is reshaping the wealth management industry.

The “digital” world is all around us. Today, we casually talk about social media and augmented reality as if it always existed, but that’s not the case. With the advent of smart phones and advances in technology, our world has changed forever. We now have the tools needed to gain a deeper understanding of the consumers’ journey and buying habits. In today’s world, technology is driving mass personalization and customization, and the consumers’ click-through journey is being tracked by cookies, tags and digital IDs.

A big transformation is underway in wealth management driven by artificial intelligence and robotic process automation. Although these technologies are not new, they will have a profound impact on our industry. Data and digital must be a priority for businesses to keep pace with consumers’ expectations as well as with their clients and peers. If financial institutions can get ahead of the curve on digital technology, they will win unparalleled advantages over rivals – not just in efficiency of management, but in employee retention, branding, customer acquisition and loyalty, and regulatory compliance.

The integration of data and digital process into every interaction is inevitable. It is a process with a long history and a promising future.

### The Digitalization of Wealth Management: Catching Up

Though digital technologies are well integrated into our lives through computers, cell phones and other devices, not everyone has caught on or adopted it. Given the speed with which this technology evolution is happening, it is easy to get left behind.

In wealth management, the transformation to digital began as money management migrated to models, which relied on the application of algorithms to large sets of data. But since then, the process of digitalization in wealth management has significantly lagged behind that of other industries, as well as the rest of financial services. Scale and complexity are part of the problem, as is the heterogeneity of wealth management clients. Some private banking and wealth management firms have also perceived a conflict between privacy concerns and the accessibility inherent to digital and social media platforms.

There was a lot of “digitalization” that took place in wealth management in the 1980s, 1990s, and the early 2000s around integration, and the middle and back office, and straight-through processing that sharply cut the time it took to process transactions. Fortunately, automation of the middle and back offices in wealth management is now complete – portfolio rebalancing takes nothing more than the push of a button, portfolio accounting and benchmarking are vastly simplified. The focus now is the front office and optimizing the user experience for current and next-generation clients while introducing smart algorithms to the middle office capabilities.

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**“The only thing advancing faster than technology is consumer expectations.”**

Jeff Yabuki, President & CEO, Fiserv

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Clients have come to expect digital-first models that enable collaborative approaches and immediate access to data in easy to digest and innovative formats. Creating an optimal user experience will require a tight focus on integration, interactivity, big data and analytics in the areas of financial literacy and education, client onboarding, holistic portfolio modeling simulations, personalized monitoring of investment preferences, customized research and targeted portfolio reporting. Financial literacy, in particular, is an area that is wide open for teaching the fundamentals of investing and financial responsibility. Many clients now seem to believe that digitalization represents the potential for greater transparency rather than a breach of privacy.

### Filtering Through the Noise and Building a Framework

There is little doubt about the benefits of technology when used appropriately. They include real-time interaction, a greater ability to improve quality and manage risk, and increases in productivity and rate of return. However, the use of technology is really a balancing act, and we can't ignore the flipside, which includes lost productivity due to multitasking, distraction and reduced quality, and a reduction in deep versus shallow work. As we've become more efficient, we have also created more digital interactions on the desktop that can drive us to distraction.

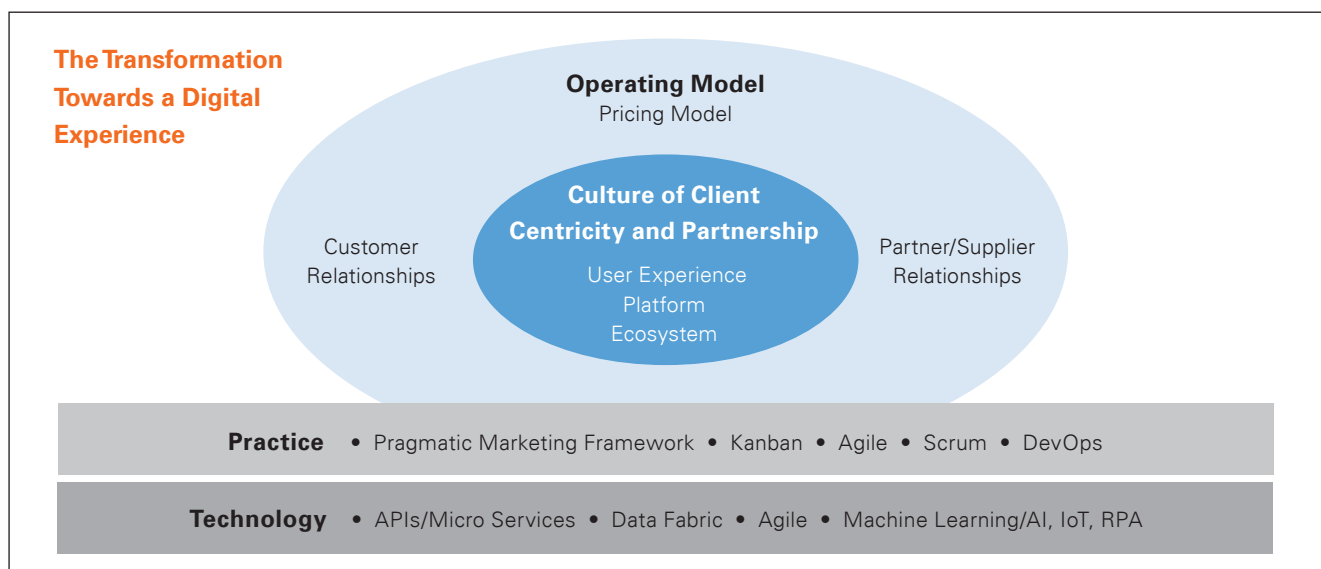
Indeed, there is an abundance of information today on trends in the digital marketplace and wealth management. We are bombarded daily with new studies about technology and advice on developing a digital strategy. At no other time in history has so much information and data been distributed to us all at the same time. It is easy to become overwhelmed. There needs to be a process in place for filtering through all of this information and making a selection. But how do you go about coming up with a strategy in the digital age?

The first thing that is needed is a framework and a process to take you through the journey and help you sort through and define the right strategies. Just because blockchain is hot, you don't have to change your current system and use it. There may be a better way to reach your goals. For a product or technology solution to be viable, it must solve a market problem. Begin with a strategic plan and outline your objectives. You must analyze your current state and evaluate how potential solutions work with your systems and can be part of your workflow. Finally, make sure you consider learning and training requirements as part of your plans.

**Developing a Data Strategy and API Integration Framework**

Data is the most important ingredient when it comes to powering digital advice. Identifying the data sets that add value to the client, advisor and the home office is the first step that must be taken before developing a data strategy. Near real-time, accurate data flow throughout an organization's front, middle and back office is necessary to provide advisors and service teams with a history of client interactions to enable better informed decisions and planning. Creating an optimal digital user experience requires a tight focus on integration, interactivity, big data and analytics for client onboarding, holistic portfolio modeling simulations, personalized monitoring of investment preferences, customized research and targeted portfolio reporting.

Think of data as the facts that inform and drive decision by humans and algorithms. The human brain, as complex as it is, does not work without data. The move to neural networks and the ability to process information must rely on data. Likewise, data is needed to power digitalization in wealth management, robotic process automation and artificial intelligence.



Establishing a data strategy is a fundamental component for digital transformation. The execution of a data strategy requires establishing data management and controls as well as integrated data management and data governance. Organizations will need to understand their data lineage and have a well-defined structure in place in order to differentiate between clients and accounts, and a holistic way of looking to solve the problem across the value chain. Starting with information from a CRM connected to an investment proposal with a goals-based plan and moving to the middle and back office requires synchronization and integration for the movement of data. How do you bring in data from a custodian and how do you structure it and move it through your processes? These are items that need to be defined.

Once a data strategy is in place and a data fabric is defined, firms can start thinking about data visualization, data analytics and design time situational analysis. Data visualization is the presentation of a sea of data and information in a vivid, visual context that helps users better understand and quickly interpret its significance and act on it. Data analytics is the next layer. It requires the knowledge of the subject matter experts and the arrangement of the data in the right way to perceive the analytics that can come from it as well as understanding the data lineage. The machines that are knocking on our door today are continuously looking for new data so they can learn and become smarter. They have mastered chess. We have invited them into our homes so they can learn our speech and accents. Now they are acquiring the data needed to become smart in other areas such as wealth management. Without data, they cannot learn.

After establishing a data strategy, an API and integration framework is needed to breakaway from a monolithic system and move to the next paradigm, which is creating platform as a service. For developers, this

### The Foundation for the Execution of a Data Strategy



**Data Management & Controls**



**Continuous Business Intelligence**



**Business Situation Awareness**

will help unleash creativity on the front end since the capabilities on the back end have been in place for many years. It will encourage new talent to come into the industry that can use those capabilities to innovate and do things differently going forward. It will accelerate modernization and pave the way for a truly exceptional user experience.

The next fundamental component for digital transformation is establishing a digital identity. This will play a critical role in providing a better way of looking at client data, and data security and integrity, in areas such as compliance across platform integration. We can think of a digital identity as a hyper model of the single sign-on. This is a next phase of identity management that is already happening globally in many countries, but must still be worked through in the U.S. where there are rules and laws governing privacy. But ultimately, digital identity will become a key enabler to accelerate digitalization in wealth management.

**API & Integration Framework**

- Accelerate modernization efforts and open new revenue streams
- Break down silos and enable true interactive experiences
- Free front-end developers to support an exceptional user experience
- Maximize customer value in today's digital world

**Robotic Process Automation and Artificial Intelligence: The Next Frontier**

There is a lot of excitement surrounding robotic process automation (RPA) and artificial intelligence (AI) and their potential for automation in business. Together, these emerging technologies will be able to drive significant increases in productivity and efficiency as well as unlock new sources of value. They also have the ability to fundamentally impact our workplace and society.

Robotic process automation is the programming of machines to mimic the way humans manage and perform tasks. As a form of intelligent automation, RPA relies on software rather than actual robots to imitate the activity of humans and carry out repetitive tasks. Through the use of intelligent algorithms, RPA can react to events and triggers to follow step-by-step procedures in various scenarios. In wealth management, RPA can take over tedious and mundane tasks that humans perform as we move towards improving our expert systems, such as client onboarding, to service both the advisor and the middle and home office. Much like the improvements to manufacturing processes that have taken place over

many years, and that have resulted in better efficiency, design, and safety, we believe wealth management is now going through this same cycle, mirroring the automation and improvement that has taken place in manufacturing since the late '70s and '80s.

**Understanding RPA**



**Manual Processes**



**High-Volume Activities**



**Prone to Human Error**

The first step in robotic process automation is to examine tasks that rely on structured data and involve manual processes and high volumes. We should start by looking at what we wish to accomplish. In wealth management, the use of RPA makes the most sense when tasks are simple, manual, high volume, content intensive, have few exceptions, and are prone to human error. Examples include:

**Client Onboarding** – Digital tools to efficiently onboard new clients remotely and with integrated applications to perform e-signatures. Know Your Client authentication, form automation. The elimination of hard copies/ multiple forms and rekeying of information.

**Financial Planning/Data Aggregation** – A digital experience for clients with tools that provide real-time interaction and “What-If” scenarios instantly. Interactive building of financial plans and portfolios and automated aggregation of client data.

**Trade Processing** – Automates exception handling to create and send intelligent alerts based on certain exception criteria. Eliminates need to manually upload data files to back-office systems as well as human mistakes. Improves process quality/volumes.

**Reconciliation** – Retrieves data in numerous forms from external parties and internal accounting/recordkeeping systems, formats information, compares data sets, and based on defined rules makes corrections and adjustments. Eliminates time-consuming reconciliation performed manually with spreadsheets. Compared to human effort, RPA can retrieve and prepare data sets in many different formats from external parties and compare based on predefined rules.

**Fund Administration/Financial Reporting** – Performs validation checks across multiple segments of the financial reporting process where the process is repetitive and rules-based and prone to human error.

Delivering expert systems through RPA that better serve the wealth management industry can improve accuracy, efficiency, and costs. It also benefits compliance since tasks performed by robots will always be conducted the same way every time under the same rules. By enabling intelligent machines to do tasks the way humans do, we can achieve frictionless client onboarding and improve middle and back office operations and processes and realize digitalization's potential.

### **Cognitive Processes and AI**

Today we can scan over 50,000 portfolios and identify where there is style drift and create a dashboard. However, this is just the first step. In contrast to RPA which is process driven, AI is data driven and takes things to a much higher level with human-like reasoning and learning. This is where cognitive processes come into play, and machines can begin to reason and understand and conceptualize at a higher level to make complex, high-level decisions. Whereas RPA is essentially mindless labor that performs the

### **What Is Robotic Process Automation?**

Robotic Process Automation (RPA) is the use of software and intelligent algorithms to automate business processes and tasks normally performed by humans. In wealth and asset management, which relies on processing high volumes of information and data, RPA, often referred to as "digital labor," can free human resources from repetitive and mundane tasks to focus on higher value-added activities.

Despite its name, RPA doesn't rely on the use of actual robots or machines. Instead, RPA relies on software that mimics the activity of humans to carry out repetitive tasks. These so-called software robots can carry out tedious tasks much more quickly and accurately than humans, freeing up time for higher level activities that require deeper thought.

In contrast to traditional automation, RPA can respond to event-driven scenarios or digital triggers based on the fulfillment of certain conditions to move ahead to the next process.

same repetitive tasks within a rules-based system, AI is focused on how algorithms can become better and better through self-learning and deductive reasoning. Whereas robots require structured data and only perform what they have been trained to perform accurately and compliantly based on digital triggers, AI can extract data from variable formats and extract what is relevant and establish context and meaning. AI includes developments such as natural language processing, which involves speech recognition, understanding, and language generation, as well as logic and symbolic reasoning and deductive analysis.

### Cognitive Processing

Cognitive processing is the ability to acquire knowledge and understanding through thought and experience and find solutions. By understanding the human brain and how it works, we have enabled computers to simulate human thought processes with the ability to become self-learning based on data inputs and outputs. Through natural language processing and speech recognition, machines are beginning to engage in more complex conversations and problem solving performed by humans.

In wealth management, new machine-driven cognitive technologies will be able to answer complicated client questions and provide personalized, data-driven insight. Portfolio managers will be able to generate investment ideas and make better decisions and executions that improve performance and returns.

Advances in AI promise to change the way people typically manage their money and how they receive financial advice. For every day investors, this means gaining access to better informed advice anytime, anywhere. With advancements in natural machine language, people can text, instant message, or speak with a machine just as they would a human advisor. Financial checkups can be broken into quick, frequent digital interactions that make it easy for investors to get the big picture of their finances. New client tools at the disposal of financial advisors, including digital advice, are helping to make them more efficient while freeing up time to build client relationships.

By using AI to educate customers and help improve their financial health and make them more aware of spending habits, financial institutions can build more trust. AI for teaching and financial literacy comes first, followed by the ability to do financial and goals-based planning to monitor clients' progress. In-person discussions about clients' financial goals can benefit from more effective and productive meetings when advanced AI algorithms are used to push advisors the right insights at the right time – helping them deliver better guidance. Finally, by using algorithms to perform jobs normally done by humans, we can do a better job investing and managing portfolios in terms of tax efficiency, rebalancing, and other value adds that can improve performance and returns.

In the future, AI-powered solutions could deliver advice that takes into account an individual's overall financial position, financial history, and financial habits. Information that isn't already known can be asked and recorded for future interactions. Questions can be posed to find out more about an individual's goals through a new verbal-enabled UI. These brief interactions might lead to an appointment with an advisor, or a financial product or plan that is consistent with a person's goals and priorities. Consumers will soon be using voice recognition software to ask how they can adjust their spending habits to stay on budget for the year after making a purchase. We are not far away from the day when we can ask Alexa® complex financial questions about spending and budgeting, or for the balance of our investment account, or what long- and short-term capital gains we can take to optimize tax efficiency. That time is coming soon.



### Digitalization's Critical Role in Wealth Management

The wealth management industry is playing digital catch-up compared to other industries. It is just entering its boom period with enormous potential for RPA and AI to improve efficiency and change the way clients communicate and how wealth is managed. For some perspective, we might look at what has taken place in the manufacturing world.

By the first half of the 20th century, workflow automation had already begun to find its place in industry and manufacturing. Industrial automation received a further push in the late '70s and '80s as the

first integrated circuit appeared, contributing to a period of unprecedented economic growth. Today, robots can assemble products better, faster and cheaper than humans. Fast forward to the digital age and the way products and services are delivered to consumers has changed forever.

Much in the way machine robotics have automated production, the use of digital labor, advanced algorithms and machine learning will play a critical role in transforming wealth management. In the not too distant future, there is consensus across the industry that AI will become the new UI and inform the way we interact with the systems that govern wealth management.

### Where Is "AI" Applicable in Wealth Management?

**Education & Financial Literacy** – Helps to develop and educate investors about spending habits, budgeting, and investments. Areas where technology can help remove friction include individual spending, saving and investment advice, and analyzing credit usage and spending patterns to recommend the best actions.

**Financial Planning & Advice** – Allows for financial and goals-based planning with virtual tools that can process large amounts of data and offer advice 'anytime, anywhere.' AI can help with savings goals and debt and spending patterns as well provide guidance on how to manage taxes and changing economic conditions.

**Client Onboarding** – Uses expert and virtual systems to enable "frictionless" onboarding and deliver seamless front-to-back office integration.

User interaction takes place through an AI-enabled verbal interface instead of mouse clicks. Onboarding timeliness can then be dramatically improved with faster document processing and more personalized services for clients with standards to ensure greater transparency and a better customer experience.

**Portfolio Management** – Supports decision making by analyzing vast amounts of data to achieve better performance and returns. AI can constantly monitor and analyze vast amounts of data and market conditions, with greater accuracy than humans, and without emotional biases. Through its immense computational power, AI can be used to more effectively monitor risk/reward requirements to achieve specific investment goals while complying with regulators' increasing demands for transparency.

## About the Author

Tirdad Shojaie leads Product, Marketing and Business Strategy for Investment Services at Fiserv. He has held numerous leadership positions focused on wealth and investment management, and advisory business and products.

## About Fiserv

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