WHITE PAPER

# Robots vs. Reality: Innovative Technology for Today, Not Tomorrow

Advancements to help financial services organizations better manage their entire workforce now

PAYROLL PARTNERS

Elevating Your HR & Payroll Experience

## TABLE OF CONTENTS

## INTRODUCTION

Today's headlines would have you believe that robots are taking over financial services. But are they really? While robotic and intelligent process automation (IPA) is a rapidly advancing field, its practical applications in financial services are still surprisingly limited. In a recent PwC Financial Services IPA survey, only 9 percent of respondents reported having IPA bots in production, and many have encountered risk and control issues along the way.[1] The threat of robots usurping financial services jobs is exaggerated too — at least for now. Jobs in the sector continued rising since the 2008 financial crisis until they peaked in 2015.[2] In fact, employee turnover rates in financial services rank in the middle when compared with other sectors[3] (see Figure 1).

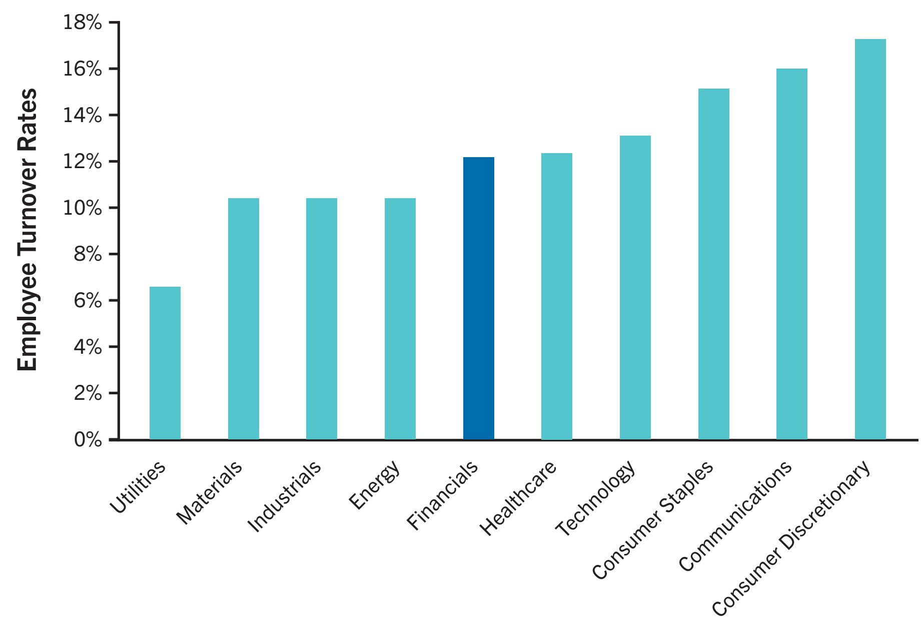



**FIGURE 1**

**Even with automation on the rise, employee turnover rates in financial services rank in the middle when compared with those of other key industries.**

Source: Bloomberg

While the buzz about robots and other futuristic automation has outpaced real-world adoption, there *are* innovative technologies available today that can augment human interactions and change the way organizations manage their entire workforce — salaried, hourly, part-time, and full-time — for the better. Accenture predicts that the combination of people and technology will create a competitive advantage in the financial services industry moving forward; the winners will not only show technological strength, but they also will use that technology to empower their staff.[4]

By putting advanced technologies to work across back-office, contact center, and frontline operations, financial services institutions will be better positioned to optimize the workforce and improve the customer experience for bottom-line impact.

[1] PwC, *Artificial Intelligence and Digital Labor in Financial Services* (accessed January 29, 2017), found at https://www.pwc.com/us/en/industries/financial-services/research-institute/top-issues/artificial-intelligence.html.

[2] David Flicking, *Robots Will Take Your Bank Job, Just Not Yet*, Bloomberg Gadfly (November 2, 2017), found at https://www.bloomberg.com/gadfly/articles/2017-11-02/robots-will-take-your-bank-job-just-not-yet.

[3] Ibid.

[4] Alan McIntyre, Steve Westland, and Shira Lillis, *Amplify You: Technology for People*, Accenture Banking Technology Vision 2017, at 3, found at https://www.accenture.com/t20170322T205838Z__w__/us-en/_acnmedia/PDF-47/Accenture-Banking-Technology-Vision-2017.pdf#zoom=50.

A robust API integration platform offers virtually **unlimited extensibility and simplifies integration**

## APPLYING BREAKTHROUGH TECHNOOGY TODAY

With so many exciting technologies on the horizon, it may be tempting to wait for the "next big thing." But taking this wait-and-see approach comes with risks, especially if the competition is adopting advanced solutions *today*. The challenge is finding a way to integrate these digital innovations into physical channels in ways that enhance the customer experience while advancing efficient delivery of products and services.[5] The following sections describe cutting-edge technologies that you can leverage now to gain competitive advantage and drive business goals.

## OPEN APIS: CREATING FLEXIBLE TECHNOLOGY PLATFORMS

Gone are the days when financial services institutions could afford long and costly development and integration cycles every time they wanted to implement new applications or onboard third-party services. To stay competitive and deliver greater value to customers, they need a flexible information technology infrastructure that lets them easily integrate core business systems with an ever-expanding digital ecosystem via a flexible and convenient software as a service (SaaS) model.[6] In a recent survey, banking executives were more likely than average (36 percent of bankers, versus 31 percent of all respondents) to think it's critical to adopt a platform-based business model.[7]

The good news is that open platform architectures — using open application programming interfaces (APIs) — make this agility and responsiveness possible today. Fundamental to the concept of open banking, open APIs are becoming more essential in the digital transformation journey of financial institutions — offering the potential to keep pace with innovation, create new revenue streams, and become a disrupting force.[8] While organizations may not know what innovative services will emerge down the road, they recognize that open platform architectures using open APIs will be essential for integrating those services.[9]

Given these opportunities, open API support should be a fundamental requirement when evaluating workforce management technology — or any critical business system. Why? Closed platforms render extension impossible and make system integration complex, costly, and fragile. At the same time, poor application integration restricts system workflow, frustrates users, and degrades adoption. A robust API and integration platform, on the other hand, offers virtually unlimited extensibility and simplifies integration. Some industry-specific workforce solutions even offer open API platforms with prebuilt connectors for common use cases such as people, payroll, and accruals.

[5] Ibid., at 3.

[6] Finastra, *OPEN APIs: A Survival Guide for Banks* (2017), at 8.

[7] Alan McIntyre, Steve Westland, and Shira Lillis, *Amplify You: Technology for People*, Accenture Banking Technology Vision 2017, at 18, found at https://www.accenture.com/t20170322T205838Z__w__/us-en/_acnmedia/PDF-47/Accenture-Banking-Technology-Vision-2017.pdf#zoom=50.

[8] Jim Marous, *The Time to Develop an Open Banking Strategy Is Now*, The Financial Brand (March 28, 2017), found at https://thefinancialbrand.com/64520/open-banking-api-fintech-disruption/.

[9] Finastra, *OPEN APIs: A Survival Guide for Banks* (2017), at 8.

## ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Artificial intelligence (AI) tends to conjure up images of omniscient robots destined to take over the world. While today's reality is far less dramatic, AI is an exciting and powerful technology with the ability to transform the way financial services companies manage their people and deliver service to customers. According to PwC's 2017 Digital IQ Survey, about half (52 percent) of financial services industry respondents said they're currently making "substantial investments" in AI, and 66 percent said they expect to be making substantial investments within three years.[10]

AI is a branch of computer science working to develop systems capable of intelligent behavior and performing tasks, such as decision making, which traditionally required human reasoning and cognitive skills. Machine learning is an application of AI that enables systems to automatically learn from experience and continually improve over time.

What can AI and machine learning bring to financial services workforce management? While potential applications are virtually unlimited, there are practical solutions in use today that help organizations work faster and smarter. Examples include:

- **Advanced forecasting:** Powered by AI and machine learning, advanced forecasting solutions improve volume forecast accuracy by as much as 25 percent,[11] resulting in higher-quality schedules that align staffing to demand. More accurate forecasting not only reduces operating costs by minimizing over- and understaffing, but it also drives revenue through improved productivity and customer service.

  Consider the case of a contact center that handles insurance claims. Managers can use AI-driven forecasting tools to continuously analyze key contact center metrics — call volume, average handle time, cost per call, agent absenteeism, and more — to more accurately predict demand. Armed with more accurate forecasts, managers can better match staff time and talent to anticipated call traffic and claim escalations.

- **Proactive compliance:** When it comes to managing labor compliance, the stakes just keep getting higher. The DOL's Wage and Labor Division recovered more than $1.2 billion in back wages in the last five years alone.[12] Proactive compliance solutions leverage AI and machine learning to continually project up-to-the-minute timekeeping data into the future, identifying and alerting managers to potential compliance risks hours or even days before an issue surfaces. This advance warning allows them to take action to prevent compliance violations from happening, thereby saving time, money, and exposure.

  White-collar employees within financial services organizations present their own set of compliance challenges, particularly when it comes to the complexities and regulations around sick leave, short-term leave, and long-term leave. Wealth advisory firms or insurance companies that operate across dozens of states would know this well, as they need to comply with federal labor laws as well as state and local wage and hour policies within each jurisdiction. Given that California alone has six different sick-leave policies and many states differ in terms of minimum wage and

**Proactive compliance capabilities empower managers** to monitor compliance and spot signs of trouble for lower risk of violations

[10] PwC, *Artificial Intelligence and Digital Labor in Financial Services* (accessed January 29, 2017), found at https://www.pwc.com/us/en/industries/financial-services/research-institute/top-issues/artificial-intelligence.html.

[11] Kronos Incorporated, *Kronos Unveils Workforce Dimensions — A Revolutionary Solution that Reshapes the Future of Workforce Management* (November 13, 2017), found at https://www.kronos.com/about-us/newsroom/kronos-unveils-workforce-dimensions-revolutionary-solution-reshapes-future-of-workforce-management.

[12] United States Department of Labor, *Wage and Hour Division* (accessed January 29, 2017), found at https://www.dol.gov/whd/data.

overtime pay requirements, keeping up can be a challenge. Proactive compliance capabilities empower managers to monitor compliance and spot signs of trouble for lower risk of violations.

- **Personal digital consultants:** Some workforce management solutions now offer personal digital consultants to help frontline managers work smarter and more efficiently. These intelligent "advisors" use AI and machine learning to automate time-consuming daily decisions, freeing managers to spend more time on strategic initiatives.

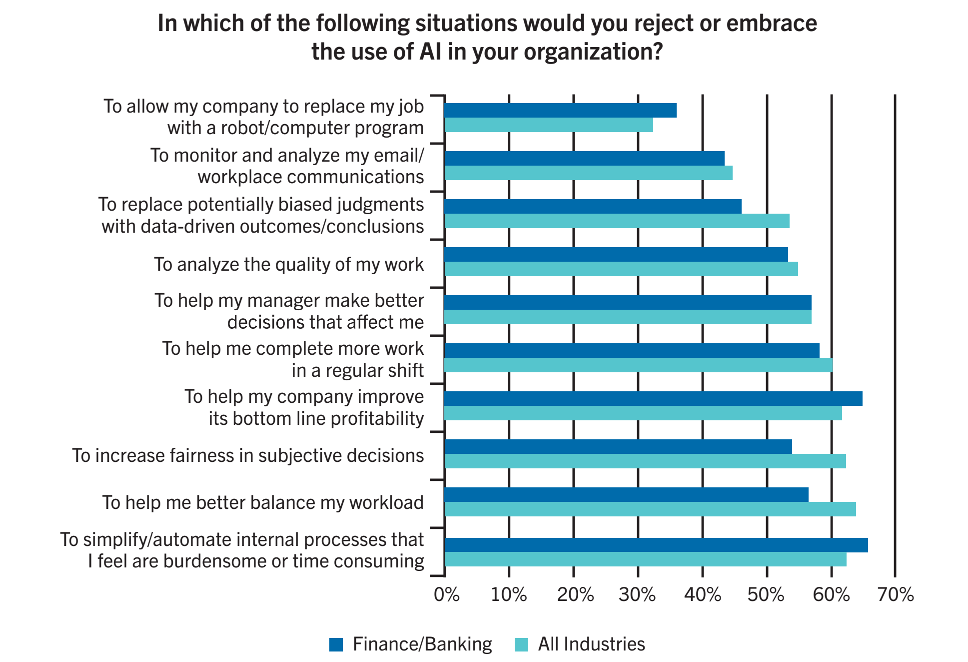
  Bank and credit union branch managers, for example, spend a lot of time handling employee time-off requests. There are many factors to take into account when making these decisions, including eligibility, accrual balances, availability and cost of replacement workers, and compliance with company policies and labor laws. Personal digital consultants apply AI to analyze all applicable variables and rapidly make an informed recommendation to accept or reject the time-off request. With intelligent decision support at their fingertips, managers can speed through administrative tasks and turn their focus to driving sales and service.

With adoption of AI on the rise, are human financial services jobs at risk? Research indicates the perceived threat remains relatively low. A Coleman Parkes study revealed that only 35 percent of financial services employees surveyed were concerned about losing their job if AI was introduced in their organization. In fact, 65 percent felt AI could simplify internal processes and 57 percent felt it could help balance their workload[13] (see Figure 2). By coupling AI with people to change the way their people work — and the type of work they do — financial services institutions can improve workforce efficiency, flexibility, and compliance while enhancing the customer experience.[14]

**FIGURE 2**

**Financial services employees do not feel especially threatened by AI, with about two-thirds of respondents believing the technology can actually simplify processes and ease their workload.**

Source: Coleman Parkes Research, Automation and New Technology Study (conducted on behalf of Kronos), 2018.




[13] Coleman Parkes Research, Automation and New Technology Study (conducted on behalf of Kronos), 2018.

[14] Helen Leggatt, *The Future of Banking UI Is AI*, BizReport Trends and Ideas (March 31, 2017), found at http://www.bizreport.com/2017/03/the-future-of-banking-ui-is-ai.html.

## AUGMENTING THE HUMAN EXPERIENCE

Rather than replacing financial services jobs, **next-generation technology is revolutionizing the way employees work** and how they engage with customers

Rather than replacing financial services jobs, next-generation technology is revolutionizing the way employees work and how they engage with customers. Significant advances in the areas of mobility and appointment setting are providing new opportunities to differentiate by enhancing the human experience. With the right technologies in place, financial services institutions can make employees more effective and better serve customers for improved business results.

### Mobility solutions for today's on-the-go workforce

The 21st-century workforce expects instant access and constant connection in both their personal and professional lives. Among younger employees, these expectations are even higher. In a PwC survey, 66 percent of millennials said that state-of-the-art technology was an important consideration when choosing an employer.[15] Investing in innovative mobile tools can help organizations attract and retain top talent — especially for salaried positions.

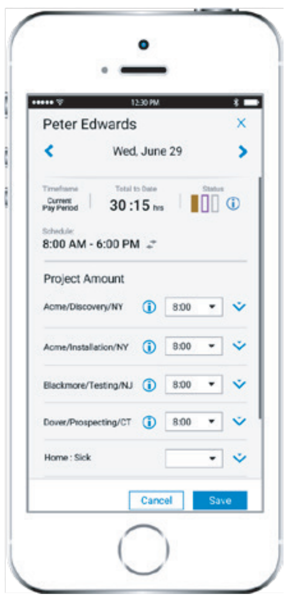



**FIGURE 3**
**Innovative mobile tools give salaried employees the ability to enter project time on their mobile devices — anytime, anywhere — instead of waiting until they are back at the office.**

How does mobile workforce management technology augment the human experience? It empowers employees and managers to stay connected and productive — anywhere, anytime — for greater productivity and engagement. Imagine if a senior risk and insurance analyst could conveniently enter and track project time on her mobile device from any location instead of waiting until she returns to the office (see Figure 3). Similarly, think about how much more productive a regional branch manager could be with the ability to approve time-off requests, manage exceptions, update schedules, and view reports via mobile app from any location — at corporate headquarters, at a branch, or while traveling between branches.

### Appointment setting for financial services customers

Today's busy financial services consumers expect personalized service delivered promptly and efficiently. Next-generation appointment-setting solutions enable customers to book appointments in seconds using geolocation technology right from their smartphones, tablets, or computers. Automated calendar invites and email or text appointments engage the customer and reduce "no-shows." On the back end, managers can use the appointment data to match the customer's needs with the most-qualified available employees based on their skills and experience.

Leveraging this technology, a wealth management group manager can examine upcoming phone appointments and assign the calls to the right wealth advisors — those with best-fit experience and expertise — to optimize service and sales. Similarly, a retail bank manager can use appointment-setting technology to reduce lobby abandons and wait times while ensuring customers speak to the right employee the first time.

[15] PwC, *Millennials at Work: Reshaping the Workplace* in Financial Services (2012), at 16, found at https://www.pwc.com/gx/en/financial-services/publications/assets/pwc-millenials-at-work.pdf.

## USING ADVANCED ANALYTICS TO GUIDE STRATEGIC DECISIONS

**Implementing an advanced analytics strategy not only involves collecting and crunching data, but also incorporating the resulting insights into business processes.**

Many financial services firms now recognize data as the fourth strategic pillar — along with people, process, and technology[16] — as it has the power to transform work patterns and decision-making processes. The next step is for organizations to harness the power of their valuable data assets by deploying sophisticated analytics. It appears that more and more companies within the financial services sector are recognizing this opportunity. A recent McKinsey & Company study found that almost every bank surveyed listed advanced analytics among its top priorities.[17]

Implementing an advanced analytics strategy not only involves collecting and crunching data, but also incorporating the resulting insights into business processes. Advanced analytics can help organizations make improvements to day-to-day activities, thereby accelerating growth, enhancing productivity, and improving risk control.[18] The potential benefits extend across the enterprise, helping organizations optimize workforce utilization and engagement, improve customer satisfaction, and drive down operating costs.

Real-time analytics track key performance indicators (KPIs) to help financial institutions optimize workforce operations. Some solutions include configurable dashboards that provide a single view into KPIs, such as overtime, productivity, profitability, service, and schedule adherence, to guide data-driven decisions (see Figure 4). Early warning signals based on user-defined thresholds and trending indicators allow managers to proactively correct course to keep results in line with expectations.


**FIGURE 4**
**Configurable dashboards provide a single view in KPIs, thereby enabling financial services organizations to gain powerful strategic insights.**

[16] EY, *The Science of Winning in Financial Services* (2015), at 4, found at http://www.ey.com/Publication/vwLUAssets/EY-the-science-of-winning-in-financial-services/$FILE/EY-the-science-of-winning-in-financial-services.pdf.

[17] Amit Garg, David Grande, Gloria Macias-Lizaso Miranda, Christopher Sporleder, and Eckart Windhagen, *Analytics in Banking: Time to Realize the Value*, McKinsey & Company (April 2017), found at https://www.mckinsey.com/industries/financial-services/our-insights/analytics-in-banking-time-to-realize-the-value.

[18] Ibid.

## ANALYTICS ACROSS ALL AREAS OF THE ORGANIZATION

Labor analytics solutions provide valuable insight into the workforce — across back-office, contact center, and frontline operations — so leaders can answer critical business questions and pursue opportunities for improvement.

### Back-office

Effective labor analytics starts with collecting all the right workforce data — for both hourly and salaried employees. Consider the case of a leading investment firm that needed a better way to collect data for tracking fund-manager activities and billing clients. To eliminate its manual, spreadsheet-based process, the company implemented a custom data-entry screen within its workforce management system.

Salaried employees now enter their daily project timecard activities per fund using the custom screen, and that data is automatically exported to another system for billing clients. The same data is used to run workforce analytics to uncover trends, identify underperforming areas, and guide business decisions.

### Contact center

An effectively deployed workforce is critical to delivering an exceptional customer experience whether in person or over the phone. Too often, however, financial services firms focus heavily on minimizing labor costs when staffing their contact centers — an approach that can result in disengaged employees who may seek other employment and dissatisfied customers who can easily take their business elsewhere.

Performance analytics can help financial services companies understand how staffing impacts service and sales performance. For example, insight into metrics like call volume per employee, average resolution time, and cross-sell and up-sell rates empower contact center managers to continually improve staffing practices and employee development to schedule the right agents with the right skills at the right time.

### Frontline operations

Labor analytics provide actionable insight into information that financial institutions already collect, such as customer relationship management data, branch or field office traffic, and sales, service, and productivity metrics, to drive better performance. With manual tracking and analysis, management can easily miss trends and issues that could be addressed through more effective scheduling, targeted coaching, or other actions.

A member-owned-and-operated financial cooperative, for example, was using paper sign-in sheets for members seeking assistance in its branch lobbies, making it difficult to quickly track wait times and ensure exceptional service. Management decided to deploy an automated solution to track member wait times, alert managers about wait-time issues, and analyze detailed performance management data. With the ability to track, manage, measure, and analyze employee performance, the financial institution increased sales by 16.5 percent over two years, while reducing average member assist times by more than five minutes.

**Advanced labor analytics give financial services leaders unprecedented visibility into the workforce and how labor affects overall business outcomes.**

Advanced labor analytics give financial services leaders — from C-level executives to frontline managers — unprecedented visibility into the workforce and how labor affects overall business outcomes. With fact-based insights into people and performance, they can proactively identify potential issues, discover root causes, and take steps to continually improve results.

## CONCLUSION

When it comes to making savvy investments in technology, don't get caught up in all the hype around robots, quantum hardware, and the Internet of Things. While these concepts offer great future potential, they are still not ready for mainstream adoption. Instead, take advantage of innovative technologies, including open APIs, AI and machine learning, mobile solutions, appointment setting, and advanced analytics, which are transforming the way financial services companies manage their workforce and deliver service to customers today. Empowering managers and employees with flexibility, convenience, and guided decision making, these commercially available solutions can help businesses stay ahead of the competition while waiting for the robot revolution to become a reality.