

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.¹

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,² 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.³ 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.

Proactive compliance capabilities empower managers

to monitor compliance and spot signs of trouble for lower risk of violations.

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 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>.

³ United States Department of Labor, *Wage and Hour Division* (accessed January 29, 2017), found at <https://www.dol.gov/whd/data>.

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 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 workload⁴ (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.⁵

In which of the following situations would you reject or embrace the use of AI in your organization?

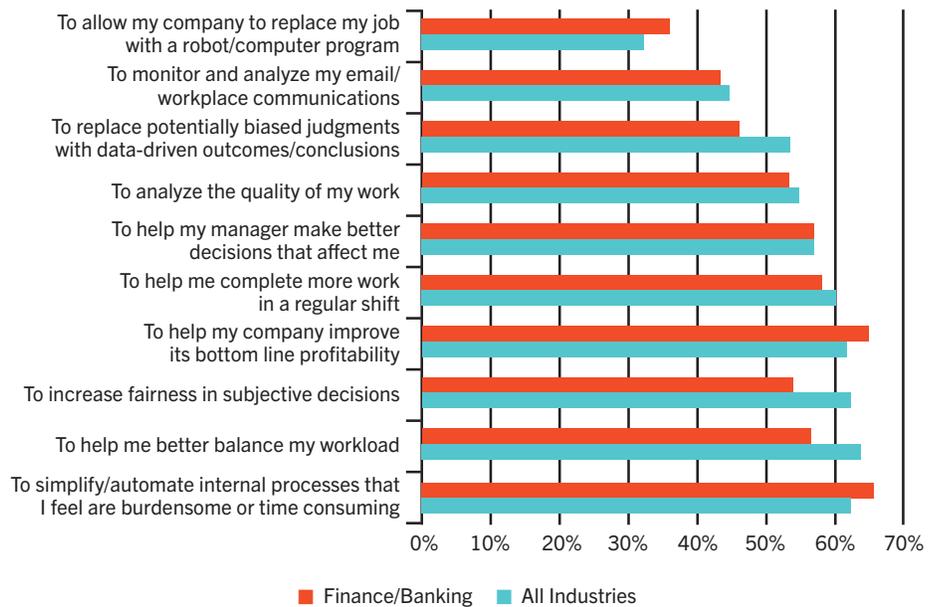


FIGURE 2
Financial services employees do not feel especially threatened by AI, with about two-thirds of respondents believing the technology can actually simplify processes and ease their workload.

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

⁴ Coleman Parkes Research, Automation and New Technology Study (conducted on behalf of Kronos), 2018.

⁵ 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>.