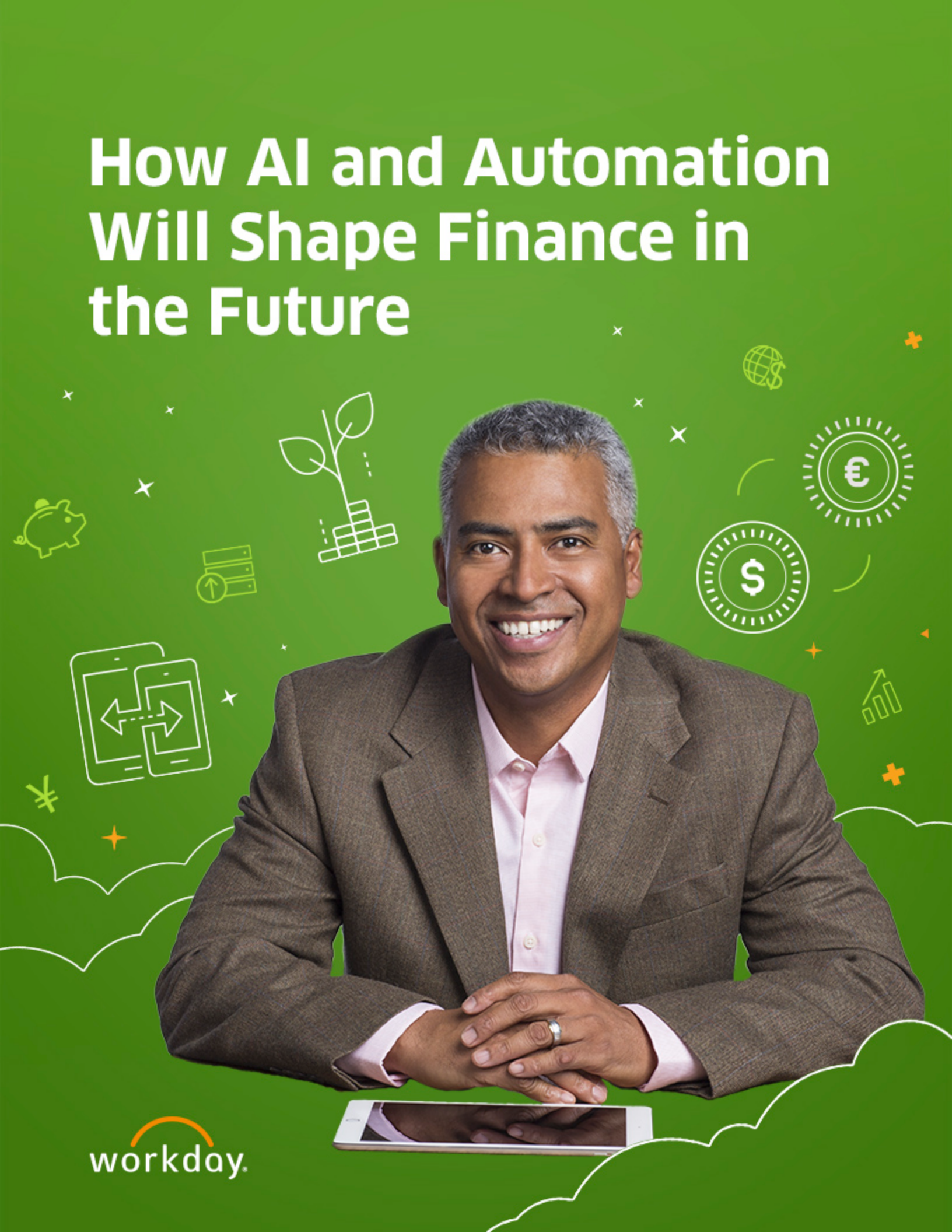
How AI and Automation Will Shape Finance in the Future



workday.

How AI and Automation Will Shape Finance in the Future

It's easy to get caught up in the newspaper headlines and online media negativity around the rise of artificial intelligence (AI) displacing human jobs across all industries. After all, the potential impact, particularly on repetitive processes and manual tasks, is all too real.

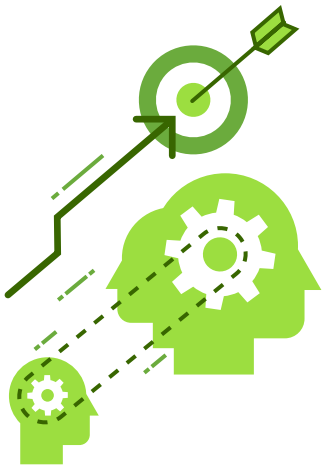
A much-cited 2013 study from Oxford University's Carl Frey and Michael Osborne estimates that 47 percent of U.S. jobs will be replaced by robots and automated technology in the next 10 to 20 years. And, according to a March 2017 PwC report, 32 percent of jobs in the financial and insurance sector could be rendered obsolete due to advances in automation and artificial intelligence.

But let's veer away from the negative for a moment. To use a restaurant analogy: rather than focus on why we're using a dishwasher instead of a human to clean the dishes, let's look at how we're going to train and employ that worker somewhere else in the business, where they can use those new skills to offer even more value.

Because that's where today's business world is focused. The journey of continuous improvements in efficiency, alongside technological progression, is driving unparalleled change. This was clear from an EY study, where 65 percent of finance leaders said having standardized and automated processes—with agility and quality built into those processes—was a significant priority. In the same survey, 67 percent of finance leaders said improving the partnership between finance and the business is also a major priority.

These goals are effectively dependent on freeing people from repetitive tasks so they have time to work on higher-value tasks. Automation represents an opportunity to reduce the burden on finance professionals, particularly around the cornerstones of traditional activities, such as transaction processing and audit and compliance. These activities in their current form prevent finance from being more strategic business partners. Research from McKinsey Global Institute estimated in 2014 that activities comprising 34 percent of a financial manager's time could be automated by adapting current technologies, freeing finance professionals up for more strategic activities.

So, what does this bright future look like, with finance taking more of a strategic business advisory role? At Workday, we're seeing forward-thinking financial executives shift to automating their finance function's repetitive, manual roles and using those investment dollars for the creation of centers of excellence. These centers shift the emphasis from number crunching to financial analytics and forecasting, strategic risk and resilience, compliance and control, and better overall data-driven financial management.



AUTOMATION REPRESENTS AN OPPORTUNITY TO REDUCE THE BURDEN ON FINANCE PROFESSIONALS, PARTICULARLY AROUND THE CORNERSTONES OF TRADITIONAL ACTIVITIES, SUCH AS TRANSACTION PROCESSING AND AUDIT AND COMPLIANCE. THESE ACTIVITIES IN THEIR CURRENT FORM PREVENT FINANCE FROM BEING MORE STRATEGIC BUSINESS PART-

The Emergence of AI in Finance

Contrary to the popular perception of finance being risk-averse, it is actually the poster-child industry for the early adoption of many new technologies, particularly AI. In the retail banking sector, organizations have started to harness AI systems to meet ever-growing regulatory demands that are getting too costly to handle with just people.

Citigroup estimates that the biggest banks, including J.P. Morgan and HSBC, have doubled the number of people they employ to handle compliance and regulation, costing the banking industry $270 billion a year and accounting for 10 percent of its operating costs.

By definition, AI is the development of computer systems to perform tasks that normally require human intelligence, such as visual perception, speech recognition, and decision-making. Experts view AI and automation as viable solutions for effectively dealing with compliance and risk challenges, and across much more of finance than just retail banking.

“Companies have really thrown bodies at this to deal with the demands of the regulators,” says Richard Lumb, head of Financial Services at Accenture. “They have had no option. But now we are shifting from a revolution of labor arbitrage and offshore to a revolution of automation.”

Shamus Rae, head of Artificial Intelligence at KMPG, concurs. “There’s never been so much data at our fingertips—and arguably there’s never been greater internal and external pressure to analyze that data to manage compliance and risk,” he says. “In this context, AI is an opportunity managers cannot ignore, offering companies the ability to process vast quantities of data at lower cost.” In addition to compliance, other applications of AI include combating fraud and anti-money laundering, Rae adds.

While the use of AI systems can help eliminate risks associated with human error, it does raise questions around how much trust the traditionally risk-averse finance function will place in “the machine.” Risk and audit functions require evidence that processes are effective, but the fact that AI handles large data volumes, and also self-learns, raises questions about complete accuracy. If a cognitive system delivers, for example, 97 percent accuracy in its decision-making, as opposed to 95 percent with humans, is this enough for the organization? Who should make that call? And how do you know whether accuracy goals are achieved? Where does the human intervention end and the machine begin?

Matthew Cooley, president, Financial Executives International, New York City Chapter, makes a valid point. “Advances in technology will continue to provide more accurate and timely data, but the strategic decisions made based on that information will always require human involvement.”

We are beginning to see a familiar pattern emerge, particularly from a finance perspective. Resource-intensive, repetitive tasks, such as data entry and transaction processing, are well suited to automation and AI. Yet far from the idea of the culling of the workforce mentioned earlier, a picture of a much more strategic, more efficient finance function is emerging, powered by these new technologies, yet still highly dependent on a skilled workforce.

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In their book *These Are the Jobs Least Likely to Go to Robots* James Manyika, Michael Chui, and Mehdi Miremadi position this idea perfectly. “The challenge for managers will be to identify where automation could transform their organizations, and then figure out where to unlock value, given the cost of replacing human labor with machines and the complexity of adapting business processes to a changed workplace,” they write. “Most benefits may come not from reducing labor costs but from raising productivity through fewer errors, higher output, and improved quality, safety, and speed.”

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Getting the Basics Right

If AI and automation are as effective as they have the potential to be, then the finance team will have the tools at its disposal to be the strategic business partner every CEO needs it to be.

Any technology that can reduce manual input and the associated human errors for transaction processing and governance, risk, and control (GRC) will free up finance professionals for more strategic work.

Yet, before making the leap to AI, finance leaders have work to do with their own data, in terms of getting to grips with analytics and ensuring the integrity and quality of their own information. In a *Harvard Business Review* article, Deborah O'Neill, a partner in Oliver Wyman's Digital and Financial Services practices, explains, "Companies that rush into sophisticated artificial intelligence before reaching a critical mass of automated processes and structured analytics can end up paralyzed. They can become saddled with expensive start-up partnerships, impenetrable black-box systems, cumbersome cloud computational clusters, and open-source toolkits without programmers to write code for them."

In terms of automation, CFOs should ask themselves if there are opportunities to automate in areas that eat up valuable resources and slow down operations. Some of these areas include planning, budgeting and forecasting, financial reporting, operational accounting, allocations and adjustments, reconciliations, intercompany transactions, and close. In other words, a large portion of finance's workload can benefit from automation.

Companies need to automate repetitive processes involving large volumes of data—especially in areas where improvements in analytics or speed would be an advantage, such as GRC.

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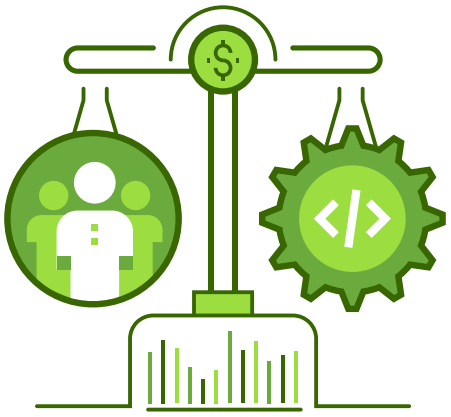
Develop Structured Data Analytics

Once key finance processes are automated, CFOs need to develop structured analytics and centralize data processes, so that the way data is collected is standardized and entered only once. The shift away from legacy on-premise systems to the cloud means that all systems lead back to "one source of truth," updates apply to the entire system, and decisions are based on a single view of data.

In a 2016 EY survey, 57 percent of CFO leaders agreed that building skills in predictive and prescriptive analytics is critical for the future. Consider that there are a number of upcoming changes under IFRS and U.S. GAAP. These include implementing changes to revenue recognition accounting standards, leases, and financial instruments, and understanding how these changes impact the entire business, not just finance.

Auditors regularly consider external data sources to understand risks, plan the audit, and confirm company assertions. To incorporate AI into their audit methodology, auditors need to understand systematically how those data sets are structured; how they differ from one industry, client, or source system; and how to transform the data reliably for use in their solutions.

STRIKING THE BALANCE BETWEEN EMERGING TECHNOLOGIES AND AN ORGANIZATION'S MOST IMPORTANT ASSET—ITS PEOPLE—IS GOING TO BE KEY FOR THE FUTURE OF FINANCE. WITH FINANCE BEING ONE OF THE FUNCTIONS MOST IMPACTED BY AUTOMATION, CFOS MUST REMEMBER THAT THE SUCCESS OF ANY TECHNOLOGY WILL ALWAYS DEPEND ON THE CAPABILITIES OF THE PEOPLE USING IT.



Transformers: How the CFO Must Blend People and Emerging Technologies

Striking the balance between emerging technologies and an organization's most important asset—its people—is going to be key for the future of finance. With finance being one of the functions most impacted by automation, CFOs must remember that the success of any technology will always depend on the capabilities of the people using it. As highlighted above, industry experts have spoken positively about the potential for financial professionals to move into more strategic data interpretation roles as the machines take over the more manual, tedious aspects of the work.

The question remains: Why would a business not take this opportunity to transform its finance function and deploy the latest cloud-based applications on a technology platform that was built to support constant change? The days of customizations and endless add-ons to integrate a vendor's technology stack seem outdated at best, and now is the time for change. CFOs should have the mind-set to be continually re-evaluating the systems they are using and ensuring they meet the needs of the business.

As we will discuss in the next phase of this story, the skills needed by the finance professional, and indeed finance leaders of tomorrow, will be heavily influenced by technological capabilities and a demand from the business for a more tech-savvy, business-minded CFO.

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