



Harvard Business Review

REPRINT H0380Z
PUBLISHED ON HBR.ORG
NOVEMBER 02, 2016

ARTICLE **LEADERSHIP DEVELOPMENT**

How Artificial Intelligence Will Redefine Management

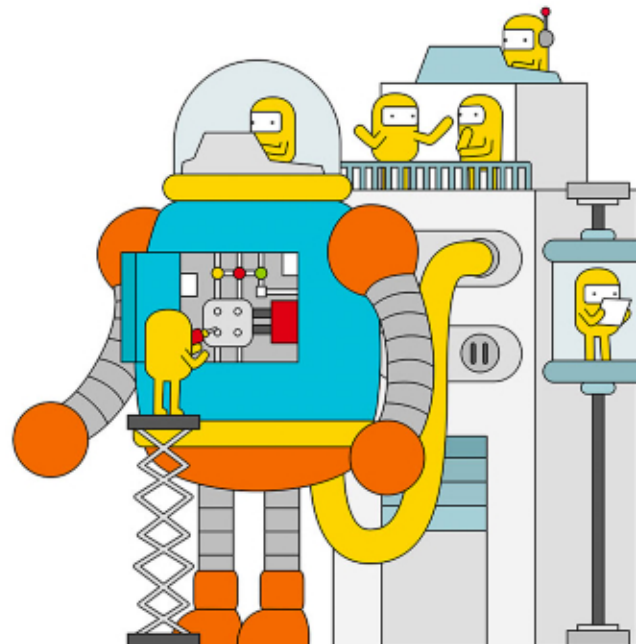
*by Vegard Kolbjørnsrud, Richard Amico and Robert J.
Thomas*

LEADERSHIP DEVELOPMENT

How Artificial Intelligence Will Redefine Management

by Vegard Kolbjørnsrud, Richard Amico and Robert J. Thomas

NOVEMBER 02, 2016



Many alarms have sounded on the potential for artificial intelligence (AI) technologies to upend the workforce, especially for easy-to-automate jobs. But managers at all levels will have to adapt to the world of smart machines. The fact is, artificial intelligence will soon be able to do the administrative tasks that consume much of managers' time faster, better, and at a lower cost.

How can managers — from the front lines to the C-suite — thrive in the age of AI? To find out, we surveyed 1,770 managers from 14 countries and interviewed 37 executives in charge of digital transformation at their organizations. Using this data, we identified five practices that successful managers will need to master.

Practice 1: Leave Administration to AI

According to the survey, managers across all levels spend more than half of their time on administrative coordination and control tasks. (For instance, a typical store manager or a lead nurse at a nursing home must constantly juggle shift schedules because of staff members' illnesses, vacations, or sudden departures.) These are the very responsibilities that the same managers expect to see AI affecting the most. And they are correct: AI will automate many of these tasks.

How Managers Spend Their Time

The bulk of it is spent on administrative tasks.

PERCENTAGE OF TIME RESPONDENTS SPEND ON CATEGORIES OF WORK



SOURCE ACCENTURE SURVEY OF 1,770 FRONTLINE, MID-LEVEL, AND EXECUTIVE-LEVEL MANAGERS FROM 14 COUNTRIES

© HBR.ORG

Report writing is another relevant example. [The Associated Press](#) expanded its quarterly earnings reporting from approximately 300 stories to 4,400 with the help of AI-powered software robots. In doing so, technology freed up journalists to conduct more investigative and interpretive reporting. Imagine technology like this drafting your next management report; in fact, this is already possible for some analytical management reports. Recently, the data analytics company Tableau [announced a partnership](#) with Narrative Science, a Chicago-based provider of natural language generation tools. The result of the collaboration is Narratives for Tableau, a free Chrome extension that automatically creates written explanations for Tableau graphics.

The managers we surveyed see such change in a positive light: Eighty-six percent said they would like AI support with monitoring and reporting.

Practice 2: Focus on Judgment Work

Many decisions require insight beyond what artificial intelligence can squeeze from data alone. Managers use their knowledge of organizational history and culture, as well as empathy and ethical reflection. This is the essence of human judgment — the application of experience and expertise to critical business decisions and practices. Managers we surveyed have a sense of a shift in this direction and identify the judgment-oriented skills of creative thinking and experimentation, data analysis and interpretation, and strategy development as three of the four top new skills that will be required to succeed in the future.

As Layne Thompson, director of ERP Services for a U.S. Navy IT organization, told us: “More often than not, managers think of what they’re doing as requiring judgment, discretion, experience, and the capacity to improvise, as opposed to simply applying rules. And if one of the potential promises of machine learning is the ability to help make decisions, then we should think of technology as being intended to support rather than replace [managers].”

Practice 3: Treat Intelligent Machines as “Colleagues”

Managers who view AI as a kind of colleague will recognize that there’s no need to “race against a machine.” While human judgment is unlikely to be automated, intelligent machines can add enormously to this type of work, assisting in decision support and data-driven simulations as well as search and discovery activities. In fact, 78% of the surveyed managers believe that they will trust the advice of intelligent systems in making business decisions in the future.

One company that is trying to address these opportunities is Kensho Technologies, a provider of next-generation investment analytics. Its system allows investment managers to ask investment-related questions in plain English, such as, “What sectors and industries perform best three months before and after a rate hike?” and get answers within minutes. Picture how such technologies could support individuals and teams of managers in assessing decision consequences and exploring scenarios.

Not only will AI augment managers’ work, but it will also enable managers to interact with intelligent machines in collegial ways, through conversation or other intuitive interfaces. AI will be their always-available assistant and adviser.

Practice 4: Work Like a Designer

While managers’ own creative abilities are vital, perhaps even more important is their ability to harness others’ creativity. Manager-designers bring together diverse ideas into integrated, workable, and appealing solutions. They embed [design thinking](#) into the practices of their teams and organizations. A third of the managers in our survey identified creative thinking and experimentation as a key skill area they need to learn to stay successful as AI increasingly takes over administrative work.

In an interview, Peter Harmer, CEO of Insurance Australia Group, emphasized the need for managers who foster collaborative creativity in the digital enterprise: “We need people who can actually layer ideas on ideas. Not somebody who has to win in a competition around ideas, but somebody who can say, ‘Crikey! If we bring these two or three or four things together, we’ve got something very, very different.’ That’s the creativity, the curiosity [we need in managers].”

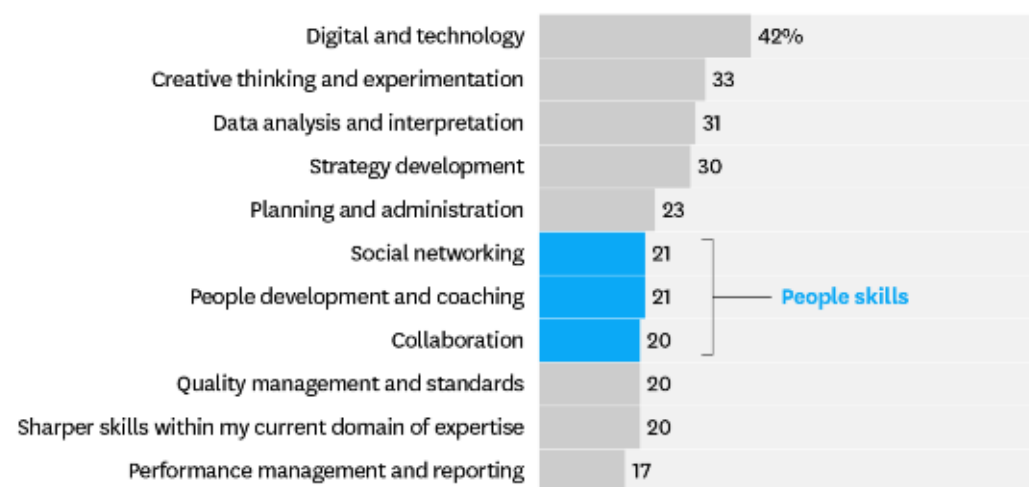
Practice 5: Develop Social Skills and Networks

The managers we surveyed recognized the value of judgment work. But they undervalued the deep social skills critical to networking, coaching, and collaborating that will help them stand out in a world where AI carries out many of the administrative and analytical tasks they perform today.

The Skills Managers Say They Will Need to Succeed over the Next Five Years

They undervalue critical people skills.

PERCENTAGE OF RESPONDENTS WHO SELECTED THE GIVEN SKILL AMONG THEIR TOP THREE



SOURCE ACCENTURE SURVEY OF 1,770 FRONTLINE, MID-LEVEL, AND EXECUTIVE-LEVEL MANAGERS FROM 14 COUNTRIES

© HBR.ORG

While they will use digital technologies to tap into the knowledge and judgment of partners, customers, and communities, they must be able to tease out and bring together diverse perspectives, insights, and experiences.

Steps to Success

AI will ultimately prove to be cheaper, more efficient, and potentially more impartial in its actions than human beings. But such a scenario should not be cause for concern for managers. It just means that their jobs will change to focus on things only humans can do.

Writing earnings reports is one thing, but developing messages that can engage a workforce and provide a sense of purpose is human through and through. Tracking schedules and resources may

soon fall within the jurisdiction of machines, but drafting strategy remains unmistakably human. Simply put, our recommendation is to adopt AI in order to automate administration and to augment but not replace human judgment.

If the current shortage of analytical talent is any indication, organizations can ill afford to wait and see whether their managers are equipped to work alongside AI. To prepare themselves and their organizations for the kinds of human-led work that will gain prominence as technology takes on more routine tasks, leaders must take the following steps:

Explore early. To navigate in an uncertain future, managers must experiment with AI and apply their insights to the next cycle of experiments.

Adopt new key performance indicators to drive adoption. AI will bring new criteria for success: collaboration capabilities, information sharing, experimentation, learning and decision-making effectiveness, and the ability to reach beyond the organization for insights.

Develop training and recruitment strategies for creativity, collaboration, empathy, and judgment skills. Leaders should develop a diverse workforce and team of managers that balance experience with creative and social intelligence — each side complementing the other to support sound collective judgment.

While oncoming disruptions won't arrive all at once, the pace of development is faster and the implications more far-reaching than most executives and managers realize. Those managers capable of assessing what the workforce of the future will look like can prepare themselves for the arrival of AI. They should view it as an opportunity to flourish.

Vegard Kolbjørnsrud is a senior research fellow at Accenture and an assistant professor at BI Norwegian Business School in Oslo, Norway.

Richard Amico is a senior analyst at the Accenture Institute for High Performance in Boston.

Robert J. Thomas is a managing director of Accenture Strategy. He is the author of eight books on leadership and organizational change, including *Crucibles of Leadership*, *Geeks and Geezers* (with Warren Bennis), and *Driving Results through Social Networks* (with Robert L. Cross).
