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# Achieving Individual — and Organizational — Value With Al

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## Introduction

At Land O'Lakes, a member-owned cooperative agribusiness, farmers are using data and artificial intelligence to make smarter decisions. Over the past 30 years, corn farmers have used advances in bioengineering, chemicals, and analytics to boost their average yields by 50%, from 120 to 180 bushels per acre. Those advances pale in contrast to future corn yields that will be made possible using data and AI: Demonstrations promise to triple that average — to 540 bushels per acre — by the end of this decade. Farmers don't have to wait that long to see some of those benefits, however. Through extensive experimentation and complex algorithms, Land O'Lakes is already providing AI-driven recommendations to help individual farmers become more productive.

But AI systems aren't telling farmers exactly what to do: Every piece of land differs; every local market differs. Instead, the cooperative offers detailed recommendations to improve the decisions individual farmers make. These include:

- > Placing the right seed in the right soil at the right density while incorporating long-term weather forecasts.
- Applying nitrogen at the appropriate rate and at the most optimal time frame, saving costs and increasing plant uptake.
- Implementing the right farming practices (e.g., tilling, cover crops) to increase soil health, sequester carbon, and drive equal or higher yields compared to prior outputs.
- Using computer vision to identify weeds and diseases and to apply the right amount of crop protection in the required spots.

Teddy Bekele, CTO of Land O'Lakes, says that farmers are "making decisions rather than following a recipe." That is, they are no longer adhering to age-old family traditions about how to cultivate the land, nor are they blindly following AI recommendations. Farmers are forging their own paths better informed, but still independent.

At the same time, many farmers in the co-op are building stronger connections with other farmers, agronomists, and nutritionists as they learn from one another. When Land O'Lakes runs large grower events that showcase new technologies, participating farmers "want to spend half of their time talking to other farmers to understand what they're doing," Bekele says. "There's a big interaction among these farmers. Working with one another is a big part of what the cooperative is all about."

Greater competency, increased autonomy, stronger relationships — these are all hallmarks of self-determination, which is a foundation of human motivation and people's innate growth tendencies. 1 The social psychology concept of self-determination holds that people have three basic psychological needs: the need to feel competent, the need to feel autonomous, and the need to feel related to others or things beyond themselves. Our research, based on a global survey of 1,741 managers and interviews with 17 executives, finds that individuals derive personal value — what we refer to as individual value — from AI when using the technology improves their self-determination, which encompasses their competency, autonomy, and relatedness.

The Land O'Lakes story illustrates a broader phenomenon. Across industries, we find employees using AI and then feeling more competent in their roles, more autonomous in their actions, and more connected to their work, colleagues,

partners, and customers. Understanding this phenomenon, however, depends on understanding how individuals use AI — which we discovered is incredibly difficult to specify. Many people use the technology without realizing it. For example, users aren't always aware that products have AI embedded in them. When individuals use those products to generate benefits for their companies, do they personally get value from AI? Does it matter if they aren't aware that the products incorporate AI?

Our research also suggests that a popular belief — that organizations achieve value with AI at the expense of individuals — does not represent the lived experience of most employees. Organizations with employees who personally derive value from AI are 5.9 times as likely to get significant financial benefits from AI compared with organizations where employees do not get value from AI. Only 8% of our global survey respondents are less satisfied with their jobs because of AI. Therefore, understanding AI's contributions to individual and organizational value demands greater awareness of AI use, its variety, and its effects on both individual and organizational value creation.

#### THIS REPORT OFFERS THREE KEY INSIGHTS:

- 1. Individual value from AI is critical for organizations to obtain value from AI.
- 2. Individuals benefit from AI when using the technology enhances their competence, autonomy, and/or relationships.
- 3. Managers can encourage AI use and catalyze value creation at the individual level by cultivating trust, understanding, agency, and awareness.

Across industries, we find employees using AI and then feeling more competent in their roles, more autonomous in their actions, and more connected to their work, colleagues, partners, and customers.

# **Five Key Survey Findings**

This year's research offers several intriguing takeaways on achieving individual and organizational value with AI:

- 1. A MAJORITY OF INDIVIDUAL WORKERS PERSON-ALLY OBTAIN VALUE FROM AI. Sixty-four percent of survey respondents personally derive at least moderate value from using AI. These workers are 3.4 times as likely to be more satisfied in their jobs as employees who do not get value from AI.
- 2. A MAJORITY OF INDIVIDUALS REGARD AI AS A **COWORKER, NOT A JOB THREAT.** A surprising number of respondents (60%) feel that AI tools are like a coworker — not the response you might expect about AI systems that, according to some media hype, will displace these workers.
- **3.** REQUIRING INDIVIDUALS TO USE AI ENCOURAGES ITS USE MORE THAN BUILDING TRUST IN AI DOES. Not surprisingly, making AI use mandatory and building trust in AI both increase the likelihood that individuals will, in fact, regularly use AI. But building trust in AI only doubles the likelihood that individuals will use AI regularly, while mandating its use triples the likelihood.
- 4. MANDATORY USE, DESPITE SEEMING OPPRESSIVE, STILL LEADS TO INDIVIDUAL VALUE. Requiring AI might lead to begrudging use, but individuals are 1.4 times as likely to get value from AI when organizations require them to use it compared with individuals at organizations that do not mandate its use.
- 5. ORGANIZATIONS GET VALUE WHEN INDIVIDUALS GET VALUE, NOT AT THE EXPENSE OF INDIVIDUAL VALUE. Among respondents who report that their organization obtains moderate, significant, or extensive value from AI, the vast majority (85%) claim that they personally obtain value from AI.

#### ABOUT THE RESEARCH

This report presents findings from the sixth annual global research study on artificial intelligence and business strategy by MIT Sloan Management Review and Boston Consulting Group. In the spring of 2022, we fielded a global survey and subsequently analyzed records from 1,741 respondents representing more than 20 industries and 100 countries. We also interviewed 17 executives who were either researching or leading AI initiatives in large organizations in a broad range of industries, including financial services, media and entertainment, retail, travel and transportation, and life sciences.

Our research looks at how individuals use AI at work and how they derive personal value from their use of Al. Interviews and survey data support the finding that personal value from AI happens when using AI leads to increased competency, autonomy, and relatedness, the essential ingredients of self-determination. Additional analysis provides insights into how individuals' personal value from AI contributes to organizations' value from AI.

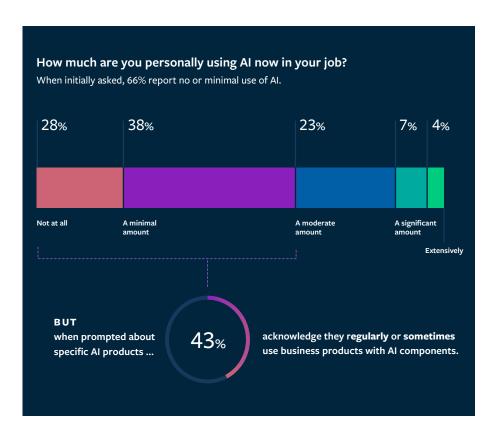
# What Does "Using AI" **Really Mean?**

Managers often say "using AI" as if they were referring to using a tool, like a stapler. But while people know when they are using a stapler, that is not always the case with AI. Consider a general business product like Salesforce's customer relationship management software, Einstein. It incorporates AI, using machine learning (ML), natural language processing, and computer vision to, for example, predict customer behavior, understand customer sentiment, and automate client services. However, end users might not be aware, or care, that AI is behind the product's performance. What's more, individuals often consider AI solutions akin to coworkers, which is rarely the case with a stapler. In addition, when using specialized AI solutions that govern (or are a part of) a business process, users may need to know how an algorithm arrived at its recommendation; in other instances, users need to train the algorithm in order to use it. Understanding the inner workings of a stapler is not necessarily needed in order to use it. Ultimately, the concept of "using AI" covers a broad range of applications in which AI may be a more or less prominent component. It's not just that using AI is different from using other tools; using AI itself is not a monolithic activity with a consistent meaning in different contexts. Understanding how organizations create value with AI requires a more foundational understanding of how individual workers use AI and how AI use contributes to personal value.

#### Many individuals don't realize the extent of their AI use in their work.

Individual workers tend to underreport their use of AI. Nuria Oliver, scientific director and cofounder of AI research center ELLIS Alicante Foundation, says that "AI is everywhere. Most people use it every day without knowing they're using it." With no prompts, 66% of individuals report that they do not use AI or use AI only minimally in their jobs. But when prompted with specific examples of AI business applications, 43% of these respondents acknowledge that they regularly or sometimes use business products with AI. (SEE FIGURE 1.) In the general survey pool, 79% report using consumer products with AI components regularly or sometimes. We find that individuals frequently use AI without knowing they are doing so.2

FIGURE 1 The Hidden Use of AI Many workers don't realize they are using AI.



AI use is so pervasive that individual workers may already take some AI applications for granted. Nicholaus Mills, a lawyer, initially described his former firm's implementation of a large AI platform that assists with corporate due diligence as "the only piece of artificial intelligence I use." But, when prompted, he acknowledged that "Siri and all that technology is so integrated into my life, I didn't even think about the fact that it's probably using predictive algorithms on the back end to become better for me."

Lack of awareness can be a byproduct of the growing extent of AI use. After all, AI is often a small but critical embedded component of a larger system. As a result, individuals underreport AI use and therefore the value they derive from the technology. Organizations need to understand all of these uses — both hidden and known — to understand how using AI contributes to individual and organizational value.

# There are far more uses of AI than just conspicuous custom applications.

Most interviewees' responses to questions about their use of AI focus on large custom applications that feature a conspicuous AI component, such as demand forecasting, customer service bots, and AI-driven coaching tools. But Fiona Tan, CTO at Wayfair, is excited about the many less-conspicuous ways that the online retailer embeds AI in its processes. She points out that "managers don't come to work every day and say, 'I'm going to use AI and ML." Rather, AI is one crucial part of a process to, among other things, ensure that customers get exactly what they need. For example, Tan notes that Wayfair often ships large items, and although "you can order six T-shirts and return five of them — no big deal — I certainly don't want to send you six couches when you're going to send five of them back." As

one critical but hidden part of the overall e-commerce experience, Wayfair's recommendation engines help customers select the products they want, reducing the likelihood of returns. The company's customer service and operations teams focus more on the outcomes than on the underlying technology that leads to this result.

Deeper discussions with interviewees reveal many other ways managers can use AI beyond conspicuous use cases, each with varying salience, extent, sophistication, maturity, frequency, and fit. Each attribute affects how individuals perceive their use of AI. For example, AI components are part of many work processes and products — talent marketplaces, word processing, and performance management coaching tools among them. When AI has a barely perceptible role in a solution, does that affect how an individual considers their use of AI? In other situations, AI might be a small but integral component or a nice-to-have addition, such as in customer relationship management systems that suggest which customer calls to make and at what time to make them or which products to recommend for a customer when building an order for them. To what extent is "using AI" a binary activity (you are or you are not) versus a matter of degree? To better understand how the use of AI affects value, we conceptualize AI uses into four types.

#### Four AI Use Scenarios

#### GENERAL CONSUMER PRODUCTS WITH AI COMPONENTS.

Products such as voice assistants, writing apps, calendar schedulers, or office productivity applications increasingly embed AI components. For example, assistants like Siri, Alexa, and Cortana use voice recognition and voice generation; Grammarly includes natural language processing.

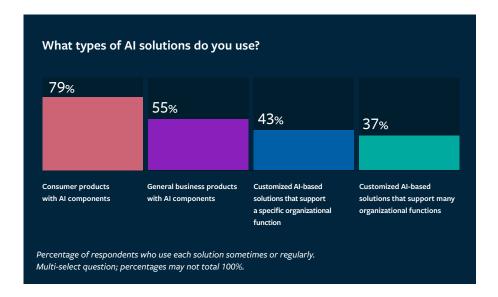
#### **GENERAL BUSINESS PRODUCTS** WITH AI COMPONENTS.

Some commercially available solutions use AI components to deliver important functionality in business. These cover a wide range of business applications, including off-the-shelf imaging tools that support radiologists, and customer relationship management software, such as Salesforce's Einstein and Microsoft Dynamics 365.

**CUSTOMIZED AI-BASED SOLUTIONS THAT SUPPORT** A SPECIFIC ORGANIZATIONAL FUNCTION. Some organizations use customized AI-based solutions to solve specific internal challenges in specific departments or functions. For example, logistics company DHL has a tool that helps optimize plane loads, and automaker Porsche embeds sound

processing technology to detect manufacturing issues."

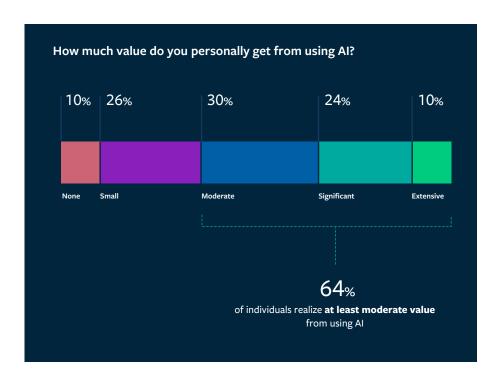
**CUSTOMIZED AI-BASED SOLUTIONS THAT SUPPORT MANY ORGANIZATIONAL FUNCTIONS.** Some organizations use tailored AI-based solutions that support many functions. For example, Dutch airline KLM developed a tool to help manage the potential effects of flight cancellations on multiple functional areas, iii and Amazon applies custom AI tools to pricing, demand forecasting, and inventory management.



#### FIGURE 2 **AI Use Scenarios**

Despite the attention given to customized AI-based solutions, individuals are more likely to use consumer and business products with AI components.

FIGURE 3 **Deriving Value** From Al Most individuals say they realize at least moderate value from using AI.



Based on our analysis, AI use is common in the enterprise. (SEE FIGURE 2.) Although custom AI applications receive considerable attention, fewer respondents report using such applications compared with commercially available products. That begs the question: Under what conditions do individuals themselves obtain value from AI?

# **Achieving Personal Value With AI**

Our survey results show that 64% of workers personally get at least moderate value from using AI. (SEE FIGURE 3.)

Individuals regularly realize value from AI without using customized AI applications. In fact, our research shows that individuals who use general business applications of AI are just as likely to derive value from AI as individuals who use customized applications. These frequent, unheralded uses of AI can all lead to significant value for individuals in the aggregate.

Precisely quantifying the amount of individual value from AI is challenging. Ironically, managers can use AI to help better measure many aspects of organizational performance, sometimes even to create new measures.3 Yet the value individuals derive from using AI is itself difficult to measure, partly because of the many ways individuals use the technology. Measuring a return on AI depends on understanding the varieties of AI use and how they contribute to value creation.

# Individuals derive value through greater competence.

Individuals need to feel competent in the performance of their jobs. They will not find value in technologies that make them feel ineffective, inefficient, or useless.

Using AI can help employees gain competence in their jobs — or, more precisely, feel more competent — in several ways. For example, individuals can use the input from AI to make better decisions that exploit business opportunities.

At ExxonMobil, geoscientists and geophysicists often make complicated decisions about where and how to extract oil. Sarah Karthigan, the company's former AI operations manager for IT, says it uses AI to identify "the right type of patterns and to help augment the decisions that a geoscientist or a geophysicist would make." With greater confidence in their decisions, they can "discover insights of value at a much faster pace."4 AI-enhanced decision support can improve competence in finding new opportunities.

Additionally, individuals can use AI to anticipate and avoid unwanted outcomes. At insurer Nationwide, claims adjusters must identify fraud when processing a claim — and avoid falsely accusing claimants of fraud. That's a tricky spot to be in — one that's complicated by having access to hundreds, if not thousands, of data points that may or may not indicate fraud. As Bradley Coy, a senior consultant for advanced analytics at Nationwide, says, "There's just so much text data generated through all of these interactions with our company." Claims adjusters are using AI to sort through the noise, highlighting those data points that might be abnormal in a given situation. Coy adds that AI helps adjusters better understand "what is attempting to be done and hopefully solve a claim in a more personal way." The ability to learn by quickly synthesizing all the information helps individual claim adjusters prevent fraud, avoid negative attention, and improve client interactions. With AI, adjusters not only learn to become more competent in their job — they feel more competent as well.

Our survey findings reinforce the stories told by our interviewees: Individuals who receive AI-based suggestions on improving their performance are 1.8 times as likely to derive value from AI as those who don't. In addition, employees who are in organizations that invest in AI that improves the quality of decisions (such as operations scheduling, inventory management, and marketing ROI) are 1.5 times as likely to perceive individual value from AI compared with those who are in organizations that do not invest in this type of AI.

# Individuals derive value through increased autonomy.

Workers must be able to make informed decisions with individual discretion, but it can take time to learn to do a job without guidance.

Despite a narrative that automation might make employees feel redundant or subservient to the machine, our research indicates that working with AI often affords individuals more autonomy rather than less. AI tools can help enhance individual autonomy in several ways: by helping individuals learn from past actions, by projecting the outcomes of current actions, by providing salient information about relevant past situations, and by offering feedback on the consequences of past actions that suggest ways to improve performance. They can also recommend new actions or help individuals understand the implications of specific actions.

(SEE FIGURE 4.)

AI tools can help enhance individual autonomy in several ways: by helping individuals learn from past actions, by projecting the outcomes of current actions, by providing salient information about relevant past situations, and by offering feedback on the consequences of past actions that suggest ways to improve performance.



FIGURE 4 **AI Helps Performance Over Time** Individuals use AI to make decisions about past, present,

At Nationwide, each call center associate receives ongoing training through a "future of work" program, Coy says. Part of the content is technical, but "half of it is geared toward softer skills, such as, 'How do I find empathy in a situation?" he explains. He is particularly excited because "there's so much to learn from what's being said and done" through natural language processing, given the vast amount of text generated from customer interactions.

Personalized feedback is provided to call center associates using insights from the AI's text analysis. But as Coy says, the goal is not to dictate "exactly what associates need to think and do, but to improve the ways they get information." The purpose of the training session is for individuals to learn to use the detailed, personalized feedback to handle customer interactions without greater oversight or dependence on others.

Using AI solutions that help workers operate with less direct oversight from management creates a perception of autonomy that can help improve job satisfaction. At Walgreens, for example, pharmacists are using AI tools that predict when pharmacy orders will be ready; this effort intends, in part, to improve customer satisfaction among those waiting for unfilled orders. James Odeyinka, technical cloud architect at the retail pharmacy chain, says that using the tool has reduced customer complaints about wait times, leading to fewer interventions from management. "Employees notice when they don't get routine calls to discuss complaints," he says. Managers notice, too: Odeyinka recalls that in one case, a manager called to congratulate the pharmacy for receiving fewer complaints. "This is what brings them joy," he says.

# Individuals derive value through stronger relationships.

Self-determination theory holds that individuals have a psychological need to interact with, connect to, and care for others. Individuals will not find value in technologies that make them feel isolated or solitary. Using AI can help individuals develop relationships with coworkers, customers, business partners, and even the tools themselves. Our survey results show that many respondents think that using AI has improved interactions with their team members (56%), with their managers (47%), and even with other people in their departments (52%). (SEE FIGURE 5.)

At LinkedIn, Ya Xu, head of data, describes the professional networking company in one word: integrated. Although the organization is functionally organized, she sees the role of data and AI in terms of enabling "really strong collaboration between all the other functions that we work with in order to bring AI solutions to production."5 Because so many AI solutions require cross-functional teams, she says that using AI "brings that collaboration to life." Using AI among teams can improve team collaboration as well. The airline KLM, for example, developed a tool to predict which passengers are likely to miss their flights after their luggage was loaded onto the plane. That capability enabled cargo teams to tag

customers' luggage, making it easier and faster to offload their bags, while improving the ability of flight crews to make on-time departures. Thanks to the new AI tool, KLM's crew and cargo teams seamlessly work together.

Communicating shared experiences with AI also strengthens relationships within organizations. Global nonprofit World Wildlife Fund (WWF) uses AI in numerous ways, says data and technology global lead scientist Dave Thau, including processing satellite images for forest conservation efforts, performing language processing on policy documents, identifying species recorded by motion-sensing cameras, analyzing social media to uncover new trends in the illegal pet trade, using thermal sensors to detect animal shipping, classifying ivory, and matching investors with sustainable projects. Given that there are so many applications, individuals might not be aware of how their coworkers are using similar technologies. "We have technology-focused teams all over the place," Thau says. "They're generally fairly small per office." He notes that WWF is documenting all the ways the organization uses AI to help the various teams see what they have in common with others in the organization and how influential AI technology is throughout the organization.

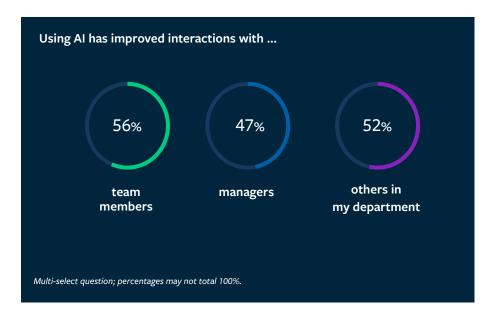


FIGURE 5 Al Improves **Communication and Collaboration** Using AI helps a variety of working relationships.

AI also enables relationships with business partners. Thau emphasizes the importance of partnerships because WWF cannot do everything internally. "I work with AI companies in many different places; they're sprouting up everywhere," he says. "We have lots of opportunities to work with those organizations, but if the director-level folks don't know that we're working with AI and how it can help them, they won't be looking for those partnerships; it won't be on their minds." Using AI can become the basis of new business relationships, for both individuals and the organization.

Front-line workers are using AI solutions to deepen their connections with customers as well. At The Estée Lauder Companies, AI tools don't simply result in quick transactions in which beauty advisers hand off recommendations to customers. Instead, using AI helps individual beauty advisers form deeper connections with customers. Sowmya Gottipati, the cosmetic company's vice president and technology lead for global supply chain, describes how AI can help a client "try 30 shades of lipstick in 30 seconds" and then the beauty adviser can help them narrow the options to just two or three. With the AI tool, beauty advisers become more effective and trustworthy. This, says Gottipati, helps "build a relationship with the customer."

One interesting finding is that employees can relate to AI tools as well. Sixty percent of individuals using AI view it as a coworker. Individuals who view AI as a coworker are 1.7 times as likely to derive individual value from it compared with those who don't view it that way: They cooperatively use AI as opposed to seeing it as a boss, a subordinate, or a mere tool.

# **Promoting a Virtuous Cycle** of Use and Value

Individual use and individual value can form a virtuous cycle. The more people use AI, the more value they derive from it. These positive results lead to more AI use. At Walgreens, for example, AI use spans three main areas: finance, marketing, and health care. The successes people saw in each area led them to want more. Odeyinka summarizes Walgreens's attitude toward AI with an intriguing word: greedy. "Greedy means that you come in with one use case, and then you see that you are more competent, and it transforms to multiple use cases," he explains.

Our research has identified four ways that managers can advance individual use of, and value from, AI: by building trust, understanding, agency, and awareness.

#### 1. Managers can promote trust.

Clearly, individuals who do not trust AI will be reluctant to use it. This year's survey results underscore this relationship. Individuals who trust AI are 2.1 times as likely to use it regularly as individuals who do not trust the technology. This corroborates the findings in our 2021 report, "The Cultural Benefits of Artificial Intelligence in the Enterprise": Managers need to nurture trust to encourage AI use. To do so, they need to ensure that workers can easily interpret AI-based outcomes and recommendations. Our survey results show that if users can interpret AI outcomes, they are 2.8 times as likely to trust the technology compared with users who cannot interpret them. Demonstrating value also builds trust. Individuals who get value from AI are 1.6 times as likely to trust the technology compared with individuals who do not get value.

Calls for transparency and explainability are not new. But some companies are going further to encourage trust in their AI solutions. For example, global reinsurance provider Munich Re launched a new product aimed at enhancing trust in AI solutions by insuring against the risk of using particular AI models. As a result, Michael Berger, head of Insure AI at Munich Re, is seeing those AI models in use in many organizations. "What excites me a lot is to work with a lot of different machine learning use cases out there, seeing that a lot of companies are really doing something, really creating something valuable for other companies, based on machine learning," he says. Munich Re evaluates the performance of these different AI models and offers a "performance guarantee, which signals trust," says Berger. Based on Munich Re's due diligence, "we can estimate what performance the AI can likely deliver," he says. "We have seen the performance data. We basically model the performance distribution of an AI. We're confident you can expect this level of performance from an AI, and if performance falls short, we cover financial losses faced by users who trusted in the AI's performance."

These reassurances go beyond promises to financial backing. According to Berger, "This simply creates a different level of trust and engagement" for individuals who depend on systems from other organizations, strengthening their relationship with these partners. With AI, managers have new ways to improve trust in relationships with key stakeholders.

# 2. Managers can encourage greater understanding of how to use Al.

With use comes greater understanding, and with greater understanding comes increased use. But cycles like these can be difficult to initiate.

At Levi Strauss & Co., front-line workers participate in a boot camp to learn how to use AI. Katia Walsh, the clothing company's senior vice president and chief global strategy and AI officer, points out that these boot camps involve people across the entire organization, from 24 locations worldwide and from every single function, including retail stores and design. People are able to do more in the organization when they understand how the tools work, she says. Walsh makes a point of emphasizing that employees who participate in the boot camp emerge not only with a new understanding of what AI can do but also with a new sense

of what they themselves are capable of. Levi's designed the boot camp to cultivate new competencies, bolster autonomy, and deepen relationships with both the organization and other teammates. Walsh concludes that "these people are now helping us change the culture in the whole enterprise globally. They think differently; they know the language they speak; they connect with data scientists, engineers, and product managers."7 Workers who understand how to work with and explain AI are 1.7 times more likely to perceive individual value from the technology than those workers who do not understand AI.8

At Ikea, employees' initial reluctance to use AI switches to demand for the technology once people see the value that can come from using it. While Barbara Martin Coppola, the retailer's former chief digital officer, does not believe in the trope that AI will displace people, she acknowledges that workers might initially fear displacement. But she sees those fears quickly subside, and, she says, "when people start to actually understand that it's augmenting them and not displacing them, and that it's at the service of human beings and at the service of business, people really start demanding it."9 Understanding that AI can improve their competency in their roles can make individuals feel more open to, and willing to, adopt it.

The likelihood that an organization obtains significant financial benefits from AI triples when AI becomes a core element of business strategy across all or nearly all business units. Managers may find that the cycle of understanding is already in progress. They can take advantage of the fact that individuals already use AI in consumer applications to introduce new AI tools as an extension of a familiar category. Rather than presenting a custom AI solution as a new type of tool that requires a "cold start," some managers transform the adoption challenge into a "warm start" by comparing new tools with familiar AI applications. Wine and spirits company Pernod Ricard did this when it introduced a new AI scheduling tool to its sales force, according to Pierre-Yves Calloc'h, head of artificial intelligence. Managers compared the new tool to the navigation app Waze to show people that they were already using similar digital assistants. This analogy helped facilitate adoption of the new scheduling tool.<sup>10</sup>

# 3. Managers can foster agency, even when mandating use.

"Initial hesitancy with adopting AI is common," says The Estée Lauder Companies' Gottipati, "particularly for those who have followed a certain process for a long time and are now being asked to change something." A popular solution to this challenge is to get these employees to trust AI. But trust is not the only factor driving adoption. Requiring AI use (and making it easy to use), especially at the early stages of adoption, can be just as important as fostering trust when it comes to getting employees to use AI.

Mandating the use of AI may seem counterintuitive to fostering agency, but interviewees and survey respondents widely cite it as an important step to overcome resistance — initially. After all, it's hard to achieve the benefit of self-determination with AI if people aren't using it. Our survey findings make clear that requiring use of and building trust in the technology are complementary, not oppositional, management approaches. Unsurprisingly, making AI use mandatory triples the likelihood of AI use: Individuals required to use AI at work are three times as likely to regularly use the technology as those not required to use it professionally.

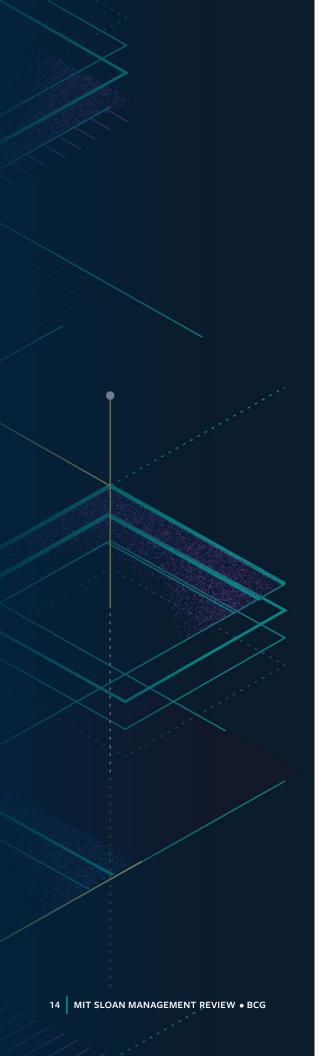
While requiring AI use can help jump-start adoption, managers should ensure that individuals still have agency. Protecting individual choice, even when mandating AI use, is critical. Our survey results show that individuals who are able to override AI are 2.1 times as likely to regularly use AI as those who are not able to override it. Preserving human agency while requiring use is a key component of early adoption management techniques. Autonomy matters.

#### 4. Managers can promote awareness.

Employees might not know much about how AI technologies work. A commonly touted way to address this concern is to increase transparency. But transparency isn't just about how AI makes predictions; it's also about knowing when individuals are using AI, who else is using AI, and how AI use relates to the overall organizational strategy. Organizations need to expand their definition of transparency to help individuals get value from the technology.

Is it important that people know what technology they are using, as long as it works? With AI, it often is important. As the ELLIS Alicante Foundation's Oliver observes, "Knowing it is AI does matter, because in the end, the tools influence us, and they influence the perception that we have of the world." Oliver recommends that organizations "try to inspire people into becoming more curious about the AI systems that they use so they can understand them a little bit better." Individuals can then better appreciate the value the tool provides and become more invested in improving it, rather than seeing only its shortcomings. Employees using AI knowingly are 1.6 times more likely to get individual value and 1.8 times more likely to be satisfied with their jobs compared with those who do not realize they use AI. Of course, individuals are more likely to report individual value from AI when they knowingly engage in higher-value, customized applications of the technology. Even so, when individuals don't know that they are using AI, they have a harder time recognizing its value.

Signaling the importance of using AI tools — for both the individual and the company — is another valuable approach to encouraging adoption. Managers who lead by example, by using AI with their teams, are 3.4 times as likely to boost regular AI use among individual team members compared with managers who do not lead by example. The likelihood that an organization obtains significant financial benefits from AI triples when AI becomes a core element of business strategy across all or nearly all business units.



Improving awareness and perception of AI is especially critical in the early stages of AI adoption. Indeed, at the pilot stage, improving perception of AI (in terms of understanding and awareness) is strongly correlated with individual value. Respondents who see AI as an opportunity for their job are 3.6 times as likely to derive value from AI compared with those who do not see AI as an opportunity. Individuals' early adoption of AI influences the organization's ability to showcase successes and develop organizational processes that support further AI adoption.

# Aligning Individual Value With Organizational Value

Individuals can get value from AI without the company benefiting, just as companies can get value from AI without individuals benefiting. Ideally, and in many cases, both the individual and the organization derive value from AI. Organizations in which survey respondents do not get value from AI are almost six times less likely to get significant financial benefits from AI compared with organizations in which individuals get value from AI.

At Vanguard, aligning individual benefits from AI and ML with client and business outcomes is essential to its mission to give investors the best chance for investment success. For instance, client-facing crew (employees) use AI in their day-to-day work when engaging with clients and are a core component of delivering premier client service. As Jing Wang, head of the company's Center for Analytics and Insights, points out, "Our client-facing crew are often critical to client interactions, which is why we are continuing to invest in innovative technologies that help them to drive efficiencies and optimize the overall client experience."

Improved customer engagements powered by AI and ML improve value for clients, crew, and the organization. Vanguard's chief data analytics officer Ryan Swann explains that one way the organization uses AI and ML is by helping the asset management company's advisers "speak to the right client, at the right time, and on the right topic, while taking into account a number of variables." This ultimately accelerates a client's ability to achieve investment success. He adds, "As an adviser, I'm able to provide improved and timely support by leveraging AI and ML within my normal

# Aligning the achievement of individual and organizational value from AI remains a work in progress.

workflow that considers things like individual goals, risk tolerances, interactions, market conditions, and/or proven investment strategies."

Creating and sustaining alignment between AI's individual and corporate benefits can be challenging, especially in large organizations that might have different incentives for AI adoption across the enterprise. Nitzan Mekel-Bobrov, chief AI officer at e-commerce company eBay, points out that "it's hard to get a whole group of people with different incentives to coordinate. While typically everyone is on board that it's the right answer, the prioritization of that versus the very immediate-term business objectives is what typically ends up faltering."11 Aligning company and individual value with AI is "very much a cultural challenge," adds Karthigan. 12

When Karthigan was at ExxonMobil, her team made sure that it had advocates on the business side before starting any AI pilot projects, because "ultimately, the end users need to be brought in," she says. "They shouldn't be fighting the solution. They should very much be the ones who are adopting those solutions and helping propagate the changes that this would produce." ExxonMobil has a robust change

management process to ensure that how individuals use and get value from AI is aligned with the company's efforts to capture value from AI. Karthigan's remarks affirm that aligning individual and organizational value from AI requires structured effort.

A significant minority of survey respondents (37%) report that they and their organizations achieve moderate, significant, or extensive value from AI. At the same time, 30% of survey respondents report that neither they nor their organization derive value from AI. Aligning the achievement of individual and organizational value from AI remains a work in progress. The following recommendations — based on our survey data and interviews — offer specific guidance on how to avoid misalignment.

#### Avoid the lure of low-value, shiny AI.

Some individuals might get value from using AI even if their organizations do not. Twenty-six percent of respondents to our survey report getting moderate, significant, or extensive value with AI themselves but note that their organizations get little or no value. AI, particularly consumer AI, might be easy for people to adopt, but individuals sometimes chase the latest AI fad without considering the actual value. Dave Galinsky, former senior director of customer data strategy and analytics at McDonald's, cautions against "focusing on shiny things in AI and machine learning because they are such hot topics."13 Instead, he recommends focusing on customer value and customer experience. The fast-food giant ensures that employees are not "so eager to do something really cool and innovative to make ourselves look good but that doesn't have the value back down to the customer."

# Look for benefits at both the individual and organizational levels.

In the legal field, Mills observes dissatisfied peers at other law firms spending many hours reviewing hundreds of documents while conducting due diligence for clients. "Associates' happiness is at an all-time low, which is a motivating factor for some firms to bring in these AI tools that let us use time more productively," he says. Mills's former firm now uses an AI tool, for example, to help lawyers process due diligence for clients' M&A transactions, an endeavor that typically involves teams of corporate associates reviewing hundreds, if not thousands, of lengthy documents. Any given transaction could require thousands of hours of essential but unexciting effort to review and discover important hidden liabilities and commitments.

Before the law firm adopted an AI solution to help with due diligence, Mills says, "I would get 10,000, 20,000 PDF pages uploaded to a data room to review. I would have to download each PDF, upload each into Adobe Reader and individually recognize the text, then click into each document separately to read through it. Each document could be hundreds of pages, and there could be thousands of them, depending on the deal size." The firm slashed time spent processing due diligence using AI tools, which freed Mills to "go right to reviewing the meat that matters, probably reducing my workload by 70% for processing due diligence specifically." As a result, Mills finds such tools "mutually beneficial, because the firms get happier employees who get a better life doing more substantive work." Mills notes that the AI system gave the firm's younger associates more time "to focus on substance instead of processing, allowing us to develop as legal practitioners more efficiently over time, improving competency while benefiting the organization."

#### Avoid burdening workers to serve the machines.

Conversely, organizations can get value from AI while some individuals in the organization do not. For instance, time spent entering data or teaching misguided AI systems might create value for the organization, but at the expense of hours of employee time. Organizations are notorious for asking employees to absorb these activities in addition to their regular responsibilities.

At Duke University Hospital's intensive care unit, an AI implementation failed for precisely this reason. In their MIT Sloan Management Review article "AI on the Front Lines," MIT professor Katherine C. Kellogg and colleagues observed, "Busy clinicians in the fast-paced ER environment objected to the extra work of inputting data into a system outside of their regular workflow."14 The AI implementation succeeded only after managers established incentives for the clinicians and clarified how benefits from their work would accrue across the organization. This example illustrates how a myopic focus on creating organizational value can lead to a loss of individual autonomy when workers are forced to support an AI solution that does not have clear individual benefits.

According to our survey, however, such misalignment is uncommon across the full range of AI uses. Only 7% of survey respondents report that their organization gets moderate, significant, or extensive value from AI but that they themselves get little or no value. Even so, managers need to anticipate whether new AI implementations will impose burdens on workers without delivering clear personal benefits.

# Ensure that the benefits offset efforts at an individual level.

Even if AI systems create value for some people, the individuals who reap that value might not be the same ones who bear most of the burden of creating it. For example, a telecommunications company wanted to develop an AI tool to help salespeople identify high-value accounts - help that the salespeople did not feel they needed. As a result, the salespeople balked at the effort necessary to develop a tool that codified their tacit knowledge. Many felt that it would erode the value of their personal relationships. 15 While the system created organizational value and individual value for

some individuals, it burdened others and weakened their relationships with their clients.

Demonstrating value at a local level is key. Levi's Walsh focuses on achieving some value from AI, even if small, that is relevant to an employee: "When we can show value very quickly, even if it's not the biggest value in the world, it has to be meaningful to excite people. But if people can see it very quickly and very concretely in their own business unit, function, geography, that certainly gets people on board because they improve their competency and see that 'Wow, this is helping me solve a problem that I've been looking to tackle all this time."

Walsh explains that local, immediate benefits help employees embrace AI: "One of my aspirations and missions has been to make AI closer to people, to give it a face, to help people understand that not only is it not there to replace jobs, for example, but it is there to help them succeed even more and make them even smarter." These successes and knowledge gains must benefit individuals, or they will resist.

Walsh believes that is key to greater benefits. "I spent 20plus years at the intersection of technology and data and analytics and machine learning, and most of that career has been actually helping companies transform themselves to meet their strategic goals," she explains. "It's particularly challenging with technology, and especially when you look at a particular technology like AI, because it can be seen as so intimidating." Demonstrating value improves trust in AI tools.

#### Conclusion

Organizations have a checkered history of implementing systems that create business value yet are unpleasant for the individuals compelled to use them. AI has the potential to be yet another technology in that rogues' gallery, especially with so much speculation that these AI systems could end up replacing workers.

Instead, our research finds that individual use and individual value are crucial for organizational success with AI. Use of AI can improve an individual's self-determination through greater competency, increased autonomy, and stronger relationships. Rather than feeling threatened by AI, workers

often view the technology as a coworker. In fact, AI has become so embedded in daily consumer uses and business processes that people might not even be aware that they regularly use AI-based technologies.

In our first research report on AI and business strategy, Erik Brynjolfsson, then professor at the MIT Sloan School of Management and now at Stanford University, said that "people using AI are starting to replace people who don't use AI, and that trend will only accelerate."16 But visible, AIheavy applications are not the only way that people use AI. AI is so widespread that practically everyone now uses it to some degree. The trend has shifted: AI's threat to people's jobs isn't about whether someone is just "using AI." Rather, the new threat is that if people are not using AI to become more self-determined, they and their company will miss out on important sources of individual and corporate value.

Individuals often achieve some value with AI, as do organizations. But our findings clearly demonstrate that organizations are far more likely to obtain value from AI when their workers do as well. The relationship between individual and organizational value from AI is additive, not zero-sum.

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#### **REFERENCES**

- 1 E.L. Deci, A.H. Olafsen, and R.M. Ryan, "Self-Determination Theory in Work Organizations: The State of a Science," Annual Review of Organizational Psychology and Organizational Behavior 4 (March 2017): 19-43.
- 2 S. Ransbotham, "Rethink Al Objectives," MIT Sloan Management Review, May 21, 2018, https://sloanreview.mit.edu.
- 3 D. Kiron, "Al Can Change How You Measure and How You Manage," MIT Sloan Management Review 63, no. 3 (spring 2022): 24-28.
- 4 S. Ransbotham and S. Khodabandeh, "302: Developing an Appetite for Al: ExxonMobil's Sarah Karthigan," Nov. 2, 2021, in "Me, Myself, and AI," produced by MIT Sloan Management Review and Boston Consulting Group, podcast, MP3 audio, 27:14, https://sloanreview.mit.edu.
- 5 S. Ransbotham and S. Khodabandeh, "405: The Collaboration Muscle: LinkedIn's Ya Xu," May 3, 2022, in "Me, Myself, and Al," produced by MIT Sloan Management Review and Boston Consulting Group, podcast, MP3 audio, 26:45, https://sloanreview.mit.edu.
- 6 Ransbotham et al., "The Cultural Benefits of Artificial Intelligence in the Enterprise."
- 7 S. Ransbotham and S. Khodabandeh, "403: From Journalism to Jeans: Levi Strauss & Co.'s Katia Walsh," April 5, 2022, in "Me, Myself, and AI," produced by MIT Sloan Management Review and Boston Consulting Group, podcast, MP3 audio, 26:55, https://sloanreview.mit.edu.
- 8 In our survey analysis, we placed respondents in the "understand" category if they reported that they are able to explain "essential" or "technical" details, or "latest developments." We placed respondents in the "do not understand" group if they reported that they can explain "basic facts" or "not much" about Al.
- 9 S. Ransbotham and S. Khodabandeh, "307: Imagining Furniture (and the Future) With Al: Ikea Retail's Barbara Martin Coppola," Feb. 8, 2022, in "Me, Myself, and AI," produced by MIT Sloan Management Review and Boston Consulting Group, podcast, MP3 audio, 27:47, https://sloanreview.mit.edu.
- 10 Ransbotham et al., "The Cultural Benefits of Artificial Intelligence in the Enterprise."
- 11 S. Ransbotham and S. Khodabandeh, "406: Transforming Transactions With Technology: eBay's Nitzan Mekel-Bobrov," May 17, 2022, in "Me, Myself, and AI," produced by MIT Sloan Management Review and Boston Consulting Group, podcast, MP3 audio, 22:59, https://sloanreview.mit.edu.
- 12 Ransbotham and Khodabandeh, "302: Developing an Appetite for AI: ExxonMobil's Sarah Karthigan."
- 13 Ransbotham et al., "The Cultural Benefits of Artificial Intelligence in the Enterprise."
- 14 K.C. Kellogg, M. Sendak, and S. Balu, "Al on the Front Lines," MIT Sloan Management Review 63, no. 4 (summer 2022): 44-50.
- 15 S. Pachidi, H. Berends, S. Faraj, et al., "Make Way for the Algorithms: Symbolic Actions and Change in a Regime of Knowing," Organization Science 32, no. 1 (January-February 2021): 18-41.
- 16 S. Ransbotham, D. Kiron, P. Gerbert, et al., "Reshaping Business With Artificial Intelligence: Closing the Gap Between Ambition and Action," MIT Sloan Management Review and Boston Consulting Group, Sept. 6, 2017, https://sloanreview.mit.edu.
- i F. Fatemi, "5 Ways Artificial Intelligence Is Transforming CRMs," Forbes, Aug. 10, 2019, www.forbes.com; "Getting Started," Frequently Asked Questions (FAQ), Salesforce, accessed Sept. 27, 2022, www.salesforce.com; S. Sauve, "Al and the Future of CRM," Yoh, Aug. 5, 2021, www.yoh.com; and S. Ransbotham and S. Khodabandeh, "304: Technology as a Force for Good: Salesforce's Paula Goldman," Nov. 30, 2021, in "Me, Myself, and AI," produced by MIT Sloan Management Review and Boston Consulting Group, podcast, MP3 audio, 25:50, https://sloanreview.mit.edu.
- ii S. Ransbotham and S. Khodabandeh, "103: 'The First Day Is the Worst Day': DHL's Gina Chung on How Al Improves Over Time," Oct. 27, 2020, in "Me, Myself, and AI," produced by MIT Sloan Management Review and Boston Consulting Group, podcast, MP3 audio, 21:05, https://sloanreview.mit.edu; and S. Ransbotham and S. Khodabandeh, "104: Better Together: Mattias Ulbrich on Combining Coffee, Business, and Technology at Porsche," Nov. 3, 2020, in "Me, Myself, and AI," produced by MIT Sloan Management Review and Boston Consulting Group, podcast, MP3 audio, 19:56, https://sloanreview.mit.edu.
- iii S. Ransbotham, F. Candelon, D. Kiron, et al., "The Cultural Benefits of Artificial Intelligence in the Enterprise," Nov. 2, 2021, MIT Sloan Management Review and Boston Consulting Group, https://sloanreview.mit.edu.

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