

# THE POWER OF HUMAN AND ARTIFICIAL INTELLIGENCE:

## Implications for Business and Society

*A Briefing for the Darden  
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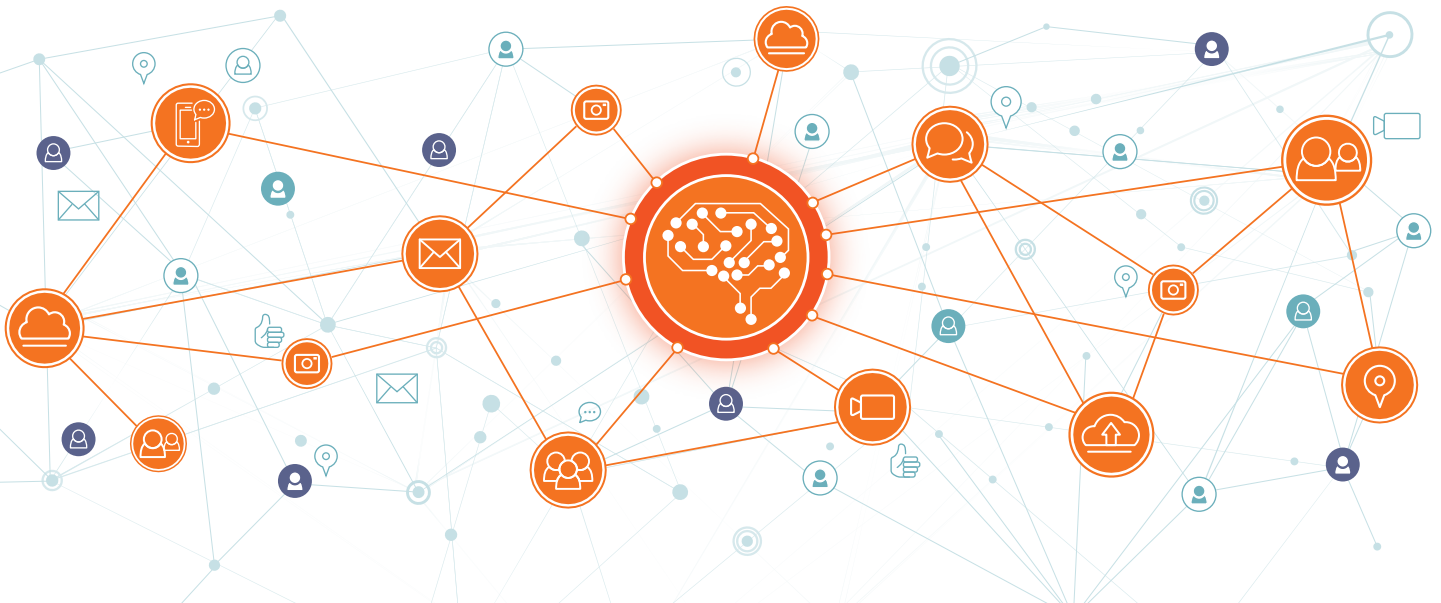
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**A**RTIFICIAL INTELLIGENCE (AI) has come a long way since 1950, when British mathematician and computer pioneer Alan Turing posed the question: “Can machines think?”<sup>1</sup>

Today, as human collaboration with smart machines gives rise to new forms of intelligence, we grapple with a different question: “How can we harness the power of collective intelligence systems to benefit humanity, while mitigating the foreseen and unforeseen risks?”

Answering that question calls for input from a broad range of stakeholders: entrepreneurs, business leaders, innovators, technologists, policymakers, and social activists. To that end, the UVA Darden School of Business launched **The Intelligence Initiative**, which provides a platform for dialogue on the growing interconnection between human and AI in business and society.

This *Darden Intelligence Briefing* aims to start that dialogue by exploring several areas Darden experts identified as critical, including the importance of adopting a stakeholder approach to business to ensure ethical deployment of digital technologies.



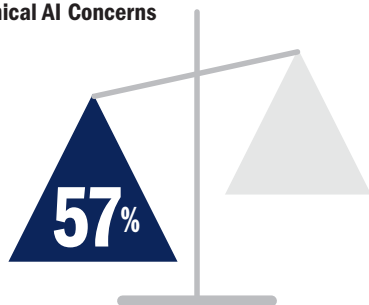
# Human–Machine Collaboration: The Rise of Collective Intelligence

## AI and Ethics

Deloitte's third annual State of AI in the Enterprise report surveyed 2,737 IT and line-of-business executives from around the world.

Fifty-seven percent of respondents reported two or more ethics-related concerns as major or extreme. Among the respondents who planned to slow their AI adoption because of concern about emerging risks, 73% cited a major or extreme concern about in at least two ethical areas.<sup>2</sup>

### Ethical AI Concerns



OF EXECUTIVES CLAIM  
TWO OR MORE  
ETHICS-RELATED CONCERNS

Overall, how concerned is your organization about the following potential risks associated with your AI initiatives?

USING PERSONAL DATA  
WITHOUT CONSENT

57%

53%

THE ETHICS OF AI SYSTEMS

POTENTIAL JOB LOSSES  
FROM AI-DRIVEN  
AUTOMATION

53%

Source: Deloitte analysis.

THE WIDESPREAD ADOPTION of novel technologies is creating new ways of working, supercharging human capabilities on an unprecedented scale.

Darden Professor Anton Korinek, an authority on advanced AI, recognizes enormous potential in human–machine collaboration. “When you bring together a group of humans and machines in a business,” says Korinek, “you have human intelligence working with AI, and what arises is an entirely new collective intelligence. And that collective intelligence can help us solve business and societal problems that we weren’t able to solve before.”

While the potential benefits of the human–machine partnerships are enormous, so are the pitfalls, many of which are impossible to predict. Accelerated adoption of AI-driven technologies in business only amplifies the risks. “What if,” asks Korinek, “we create a system consisting of corporations and intelligent machines working together, they have a growing influence on what’s happening in our world, and we come to rely more and more on them, but suddenly they pursue outcomes that are really unethical?”

The danger is that novel technologies and intelligent systems advance without addressing ethics. As business leaders are redesigning their organizations around human–machine collaboration, says Korinek, “It’s important to understand how all those new types of intelligence interact with each other and how we can leverage them to advance the broader goals of society and not just some narrow objective that benefits a few companies and their shareholders.”

## Creating Ethical Intelligence: The Stakeholder View of Business

How can we ensure ethical development of novel technologies? The answer lies in the stakeholder theory of business, co-created by Darden Professor R. Edward Freeman.<sup>3</sup>

Stakeholder theory challenges the long-held shareholder theory, proposed by the late Milton Friedman, an economist who argued that the social responsibility of business is to maximize shareholder profits.<sup>4</sup>

One of the key insights of stakeholder theory is that shareholders are not the only group that matters. In addition to shareholders, companies also need other stakeholders, including employees, customers, suppliers, local communities, and governmental groups. In fact, a stakeholder is anyone whose continued support is required for a company’s long-term survival, or anyone who can affect or is affected by a company’s decisions and operations.<sup>5</sup> That’s why, says Freeman, to ensure their own success and long-term survival, companies should strive to do right by all their stakeholders.

Freeman’s precept takes on a heightened urgency in a time of widespread AI adoption, especially when considering that the output from advanced AI technologies will have lasting societal impact.

1 A. M. Turing, “Computing Machinery and Intelligence,” *Mind* LIX, no. 236 (October 1950): 433–60, <https://academic.oup.com/mind/article/LIX/236/433/986238> (accessed Sept. 14, 2021).

2 Beena Ammanath, David R. Novak, Siri Anderson, and Abha Kulkarni, “Conquering AI Risks: Unpacking and Alleviating Concerns that Threaten AI Advancement,” Deloitte, October 28, 2020, <https://www2.deloitte.com/us/en/insights/focus/cognitive-technologies/conquering-ai-risks.html> (accessed Oct. 22, 2021).

3 R. Edward Freeman, *Strategic Management: A Stakeholder Approach* (New York: HarperCollins, 1984).

4 Milton Friedman, “A Friedman Doctrine: The Social Responsibility of Business Is to Increase Its Profits,” *New York Times*, September 13, 1970.

5 R. Edward Freeman, Kirsten E. Martin, and Bidhan L. Parmar, *The Power of And: Responsible Business Without Trade-Offs* (New York: Columbia Business School Publishing, 2020).

# New Ethical Dilemmas: Steering Technological Progress to Benefit Society

**BUSINESS LEADERS** across industries increasingly view AI as an economic accelerator. Recent surveys of C-suite executives confirm that AI adoption, bolstered by the COVID-19 pandemic, has been positively correlated with superior business outcomes in revenue and cost.<sup>6</sup>

While business leaders embrace AI as a key lever of profitability, Darden experts caution that unmitigated technological progress has potential to disrupt the functioning of the economy and society. According to Korinek, AI advancements have opened new areas in which market value and ethical values come into conflict. One such critical area Korinek has been exploring in his research is the impact of AI-driven automation on labor markets and inequality.<sup>7</sup>

According to grim forecasts, AI-driven automation has the potential to be a relentless job killer across the economy. Should we then halt technological progress to save jobs?

In “Integrating Ethical Values and Economic Value to Steer Progress in Artificial Intelligence,” a chapter in *The Oxford Handbook of Ethics of AI*, Korinek examines the hotly debated question of whether it’s right to introduce new technologies that lead to job losses. Those arguing from a purely economic perspective, or a narrow efficient-markets perspective, might say yes. An ethicist, however, whose perspective includes the devastating impact of job losses on laid-off workers, their families, and communities, might say no.<sup>8</sup>

How can we resolve this conflict? Ideally, novel technologies should be thoughtfully and rigorously evaluated before they are deployed. “We should be able to anticipate potential ethical problems that are generated by new AI technologies and steer away from them,” says Korinek.

In the case of AI-driven automation, innovators could more intentionally guide technological progress toward technologies that enhance the economic prospects of workers rather than replace them. If necessary, says Korinek, this could be encouraged via taxes or subsidies that depend on whether an innovation improves human capabilities or replaces them.

Fortunately, technological progress is driven by humans, who decide how and where to innovate, says Korinek. Various stakeholders—including scientists developing new technologies, business leaders adopting them, workers using them, and especially regulators—have the power to redirect AI technologies toward a future that benefits all humanity.

It’s a challenging task, but Korinek and other Darden experts believe we can meet that challenge by integrating an assessment of the economic value created by AI technologies with the complementary perspective our ethical values provide.

## AI-Driven Automation and Human Jobs

In a recent study, economists Daron Acemoglu of MIT and Pascual Restrepo of Boston University, found significant negative effects of robots on employment and wages.

As Acemoglu and Restrepo indicate, in the United States, between 1990 and 2007, each robot in manufacturing industries resulted in the loss of 6.2 human jobs on average. In addition, automation depressed wages by between a quarter and a half of 1%.<sup>9</sup>

## Technical Feasibility of Automation

*It’s more technically feasible to automate predictable physical activities than unpredictable ones.*

**PREDICTABLE  
PHYSICAL WORK**

**78%**

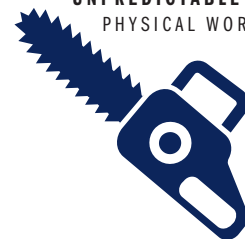
For example, welding and soldering on assembly line, food preparation, or packaging objects



**UNPREDICTABLE  
PHYSICAL WORK**

**25%**

For example, construction, forestry, or raising outdoor animals



Source: *McKinsey Quarterly*.

<sup>6</sup> “The Business Value of AI: Peak Performance During the Pandemic,” IBM Institute for Business Value, 2020.

<sup>7</sup> Anton Korinek, “Integrating Ethical Values and Economic Value to Steer Progress in Artificial Intelligence,” in *The Oxford Handbook of Ethics of AI*, eds. Markus D. Dubber, Frank Pasquale, and Sunit Das (New York: Oxford University Press, 2020): 475–92.

<sup>8</sup> Korinek.

<sup>9</sup> Daron Acemoglu and Pascual Restrepo, “Robots and Jobs: Evidence from US Labor Markets,” *Journal of Political Economy* 128, no. 6 (2020): 2,188–244.

# The Rise of the Digital Age: Understanding Digital Disruption

## The Four Factors Driving Digital Disruption

### 1 NETWORK EXTERNALITIES

According to Darden Professor Michael Lenox, it's the idea that the value of a good or service increases as others consume it. Take Facebook: the more people are part of the network, the more valuable it becomes.

### 2 WINNER-TAKES-ALL MARKETS

Network externalities often lead to “winner-takes-all markets,” where a few dominant players lock in valuable positions within an industry. And this is concerning, says Lenox. Firms that go in first—like Facebook, Google, and Amazon—can build large data sets, improve their AI, and create virtuous cycles, which allows them to create even more data. “Those companies,” says Lenox, “are going to be so far ahead of everyone else that they will be able to thwart competition.”

### 3 PLATFORM TECHNOLOGIES

The third factor of digital economies to consider is platform technologies. The internet is the prime example here—an underlying technology that has great value across several sectors and allows different companies different ways to plug in. Mobile and cloud computing are all examples of platform technologies.

### 4 COMPLEMENTARY CAPABILITIES

Digital revolution is changing the nature of competition. “Given the ubiquity of different platforms and technologies,” says Lenox, “the way in which you might need to compete is by offering some specific capability that allows you to leverage those platforms to your advantage. You will need to find that specific way in which you can uniquely deliver value.”

Source: Professor Mike Lenox.

AI AND OTHER DIGITAL TECHNOLOGIES have advanced more rapidly than any innovation in our history, completely redefining the business landscape. Their potential to disrupt markets and industries is so profound that the World Economic Forum refers to what's happening as the Fourth Industrial Revolution.<sup>10</sup>

According to Darden Professor Mike Lenox, an authority on technology strategy and policy, disruptive potential of digital technologies is a recurring theme in his conversations with CEOs and other executives. “I've not come across an industry that isn't feeling at least some pressure from, more broadly, digital transformation, but specifically AI,” says Lenox.

Lenox believes that many incumbent companies underestimate how disruptive digital technologies are. “Traditional businesses think about digital transformation in terms of getting their data in order and using some AI tools and techniques to create some automated services,” says Lenox. What business leaders need to understand, however, is that technology is changing the basis of competition. “It's deconstructing the value chain,” says Lenox. “It's creating virtuous loops that are increasing the scale of businesses. And that has huge implications across every industry and every firm.”

What should leaders in traditional businesses know about digital disruption? According to Lenox, they should recognize the four underlying factors that drive the disruptive potential of digital technologies: network externalities, winner-takes-all markets, platform technologies, and complementary capabilities. (See sidebar.) “Understanding those underlying drivers and how they might impact various industries can help traditional businesses navigate the disruptive innovation that's happening across those industries,” says Lenox.

## The Primacy of Data

One of the most valuable resources in today's digital economy is data. “Data has always been important in business, but it's becoming even more critical for companies to succeed,” says Lenox. “The ability to collect, share, and use data, and most importantly, to create value on top of that data, is at the heart of the digital revolution. It's how businesses are creating competitive advantage.”

Take CarMax, America's largest used car retailer, where most sales still happen in a brick-and-mortar store, but whose customers' buying journey often starts online. CarMax's long-term competitive advantage hinges on its ability to collect first-party data and use it to ease the purchase process by personalizing the consumer's experience—online and in a physical store.

Considering that data is fast becoming a fundamental driver of competitive advantage, says Lenox, every manager should be asking and debating the following questions: “How do we collect data? How do we manage data? And how does it change the way we add value to our customers and capture that value?”

<sup>10</sup> Klaus Schwab, “The Fourth Industrial Revolution: What It Means, How to Respond,” World Economic Forum, January 14, 2016, <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/> (accessed Sept. 14, 2021).

# New Tech in the Workplace: Understanding the Psychology of Human–Technology Interactions

AI AND OTHER NOVEL TECHNOLOGIES are making inroads into the workplace, changing the ways in which employees engage with their work and with each other.

Google Drive, Slack, and other collaboration tools enable geographically dispersed teams to work remotely. Similarly, virtual reality (VR) lets employees interact with each other via avatars in highly immersive environments.

According to Darden Professor Roshni Raveendhran, whose research focuses on understanding and predicting the future of work, novel technologies are being adopted at such a fast pace that understanding their impact on individuals is often an afterthought rather than a core requirement.

The reality is that novel technologies have a significant psychological impact on those who use them. “We need to understand,” says Raveendhran, “how to design those technologies and how to implement them to achieve the best possible outcomes for individuals in organizations.”

## Behavior Tracking in the Workplace

Consider behavior tracking, one of top technology trends shaping the modern global workplace. Raveendhran’s latest research specifically focuses on understanding how behavior-tracking technology is changing the way organizations monitor their employees.<sup>11</sup>

Most of us are familiar with smart watches, wristbands, and patches that use computer-based algorithms to continuously track information about users and provide feedback. Increasingly, organizations are trying to leverage those tools to motivate their employees and monitor their performance and productivity.

In one study, Raveendhran and her collaborators set out to examine how technological tracking that was fully automated differed from tracking that had some form of human involvement.<sup>12</sup>

The study found that people are more willing to accept behavior tracking at work when it is conducted solely by technology—that is, computer algorithms—rather than by humans. What drives that acceptance? “When people are tracked by technology only,” says Raveendhran, “they are less concerned about potential negative judgment, which increases their sense of autonomy.”

Findings from Raveendhran’s study have important implications for both employees and employers. As organizations increasingly use technology to monitor employees, to do it effectively, they might consider fully automating tracking.

Raveendhran’s research has broader implications. It demonstrates that it’s critical to be mindful of how employees react to not only tracking but also other technologies such as VR that organizations are racing to adopt.

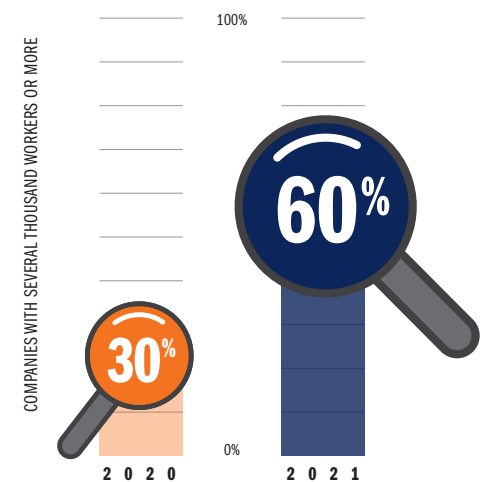
As Raveendhran puts it, “If organizations want the adoption of novel technologies to go beyond just cost savings and actually be a sustainable investment, they can’t ignore their most important stakeholder group—their employees.”

## Employee-Monitoring Technologies

According to the research and advisory firm Gartner, employee monitoring is one of the nine forces that will shape work in 2021 and beyond.<sup>13</sup>

When the pandemic began in 2020, 30% of companies with several thousand workers adopted new employee-tracking technologies. A year later, that number jumped to 60%.

### Adoption of New Employee-Tracking Technologies



Gartner research found that less than 50% of employees trust their organization with their data, and 44% don’t receive any information regarding the data collected about them.<sup>14</sup>

Gartner also predicts that by 2023, more than 1 in 10 workers will attempt to trick AI systems used to measure their behavior and productivity.<sup>15</sup>

11 Roshni Raveendhran and Nathanael J. Fast, “Humans Judge, Algorithms Nudge: The Psychology of Behavior Tracking Acceptance,” *Organizational Behavior and Human Decision Processes* 164, no. 3 (2021): 11–26.

12 Raveendhran and Fast.

13 Brian Kropp, “Nine Work Trends that HR Leaders Can’t Ignore in 2021,” Gartner, January 21, 2021, <https://www.gartner.com/smarterwithgartner/9-work-trends-that-hr-leaders-cant-ignore-in-2021/> (accessed Sept. 14, 2021).

14 <https://www.gartner.com/smarterwithgartner/9-work-trends-that-hr-leaders-cant-ignore-in-2021/>.

15 Gartner press release, “Gartner Says 10% of Workers Will Seek to Trick AI-Driven Tracking Systems by 2023,” Gartner, February 8, 2021, <https://www.gartner.com/en/newsroom/press-releases/2021-02-08-gartner-says-10-percent-of-workers-will-seek-to-trick-ai-driven-tracking-systems-by-2023> (accessed Sept. 14, 2021).

# The Public Perception of AI: Understanding Algorithm Aversion and Appreciation

## Do Consumers Trust AI's Product Recommendations?

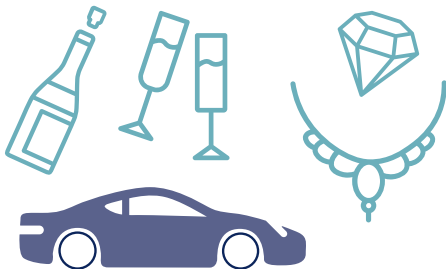
It depends, says Darden Professor Luca Cian. Consumers prefer AI recommenders when they are seeking utilitarian goods. For products that promise hedonic experiences, consumers prefer suggestions from other humans.

## Hedonic vs. Utilitarian Consumption

Consumer choices are driven by utilitarian and hedonic considerations. For example, someone looking for a new car may care about its utilitarian attributes, such as gas mileage and cargo space, as well as its hedonic features, such as a sporty design and trendy color.<sup>16</sup>

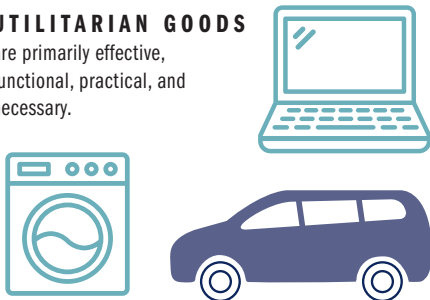
### HEDONIC GOODS

are fun, exciting, thrilling, and enjoyable.



### UTILITARIAN GOODS

are primarily effective, functional, practical, and necessary.



COMPANIES INCREASINGLY deploy AI technologies to automate tasks only humans used to do. But as algorithms write news stories and AI-powered chatbots make product recommendations, a key question looms: How does the public perceive the use of AI? Darden Professor Luca Cian, whose marketing expertise encompasses consumer behavior and psychology, aims to answer that question.

Recently, Cian has been studying a phenomenon called “algorithm aversion,” which refers to our reluctance to use algorithms that make occasional mistakes, even when an algorithm consistently beats human judgment. He’s also explored a phenomenon called “algorithm appreciation,” which refers to the circumstances in which people prefer algorithmic rather than human judgment.

“It’s critical to understand both phenomena,” says Cian. “For AI to deliver business value we need to examine how the public perceives and reacts to the implementation of AI. Algorithm aversion, for example, is an irrational belief that can be quite costly.”

## Varying Perceptions of AI

News outlets are turning to automated news-production systems to gain efficiencies in news coverage, speed, and costs. The *Washington Post*, for example, used AI-powered bot Heliograf to create news stories as far back as 2016.<sup>17</sup>

But do people believe content from AI as much as content from humans? In a recent study, Cian found that people view AI-generated news stories as less accurate than those produced by human writers.<sup>18</sup> When news items were identified as produced by AI, people were more likely to incorrectly rate them as inaccurate when they were, in fact, true.

Cian’s research on how the public responds to disclosure of AI in news production is particularly important given that adoption of AI systems in newsrooms is likely to become an industry norm.

In another study, Cian and Chiara Longoni, a professor of marketing at Boston University’s Questrom School of Business, found evidence for the existence of what they call a word-of-machine effect: the circumstances in which people gravitate to AI recommendations. Their research revealed that consumers prefer AI recommenders when they are seeking functional or practical offerings, such as kitchen appliances or computers. When they search for fragrances, food, and wine—products that promise more sensory or hedonic experiences—consumers prefer suggestions from other humans.<sup>19</sup>

Importantly for marketers, Cian and Longoni found that people embrace AI’s recommendations if AI works in partnership with humans. Stitch Fix, which uses AI in collaboration with human stylists to choose clothing for its customers, is an example of how successful such a hybrid approach can be.

One thing is clear: customers need to be able to trust AI’s judgment. Without that trust, says Cian, the economic benefits promised by AI technologies can’t be fully realized.

16 Elizabeth C. Hirschman and Morris B. Holbrook, “Hedonic Consumption: Emerging Concepts, Methods and Propositions,” *Journal of Marketing* 46 (1982): 92–101.

17 Jaclyn Peiser, “The Rise of the Robot Reporter,” *New York Times*, February 8, 2019.

18 Chiara Longoni, Andrey Fradkin, Luca Cian, and Gordon Pennycook, “News from Generative Artificial Intelligence Is Believed Less,” working paper (2021).

19 Chiara Longoni and Luca Cian, “Artificial Intelligence in Utilitarian vs. Hedonic Contexts: The ‘Word-of-Machine’ Effect,” *Journal of Marketing* (2020).

# AI in Marketing: Driving Growth through Personalized Experience

**DIGITAL DISRUPTORS** such as Amazon, Google, Facebook, and Netflix revolutionized how customers experience brands by harnessing AI and machine learning.

Netflix, for example, takes full advantage of the wealth of consumer data and sophisticated algorithms to create unparalleled value for its customers. It delivers media with a seemingly limitless assortment and a high degree of personalization.

“Netflix’s business model is built on the ability of its technology platform to collect first-party data about its customers,” says Darden Professor Raj Venkatesan, an authority on customer relationship management, mobile marketing, and marketing metrics and analytics. “Netflix knows what each subscriber, and similar subscribers, are watching, so it’s able to predict what types of content its customers will want and when they will want it.”

As Venkatesan and his coauthor Jim Lecinski explain in their recent book, *The AI Marketing Canvas: A Five-Stage Road Map to Implementing Artificial Intelligence in Marketing*, technology-driven companies like Netflix have completely reset customer expectations through increasing personalization of the customer experience.<sup>20</sup> Now customers not only expect personalization, they demand it, says Venkatesan. They lose patience with incumbents who fail to keep up and leave for competitors who offer more compelling experiences.

So, what is the essence of a great experience? When customers interact with brands, they bring their unique questions, problems, and needs. They also bring increasingly higher expectations regarding how well brands will help them achieve desirable outcomes. According to Venkatesan, customers want brands to meet them where they are, be it in the digital or the physical world. They expect brands to frictionlessly and quickly deliver what they need when they need it, across all channels. And they want their brand experience to be as personal as it can be.

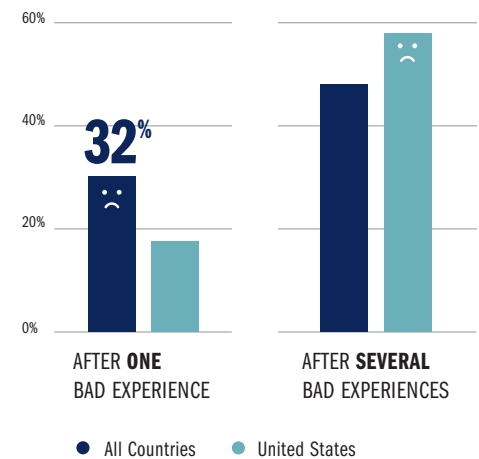
“When brands deliver great experiences, they make people’s lives better,” says Venkatesan. Such brands become an indispensable part of their customers’ lives. And that’s what fuels sustainable growth.

New research from Accenture Interactive suggests that customer-centric companies that realign their operations and processes to deliver stellar experiences for their customers increase their profitability year-on-year by at least six times over their industry peers.<sup>21</sup>

Faced with rising consumer expectations, companies across industries are investing in AI tools and techniques to get deep, granular insights on what’s driving customer experience and to continuously improve it. “AI technologies,” says Venkatesan, “enable companies to add speed and personalization, and to do things at scale that wouldn’t be possible to do manually. If you don’t embrace AI, you’re geared to be taken over and disrupted by those companies that have AI at the core of their business model.”

## When Customers Give Up On a Brand They Love

Customers expect great customer experiences. According to a 2018 survey by PWC, 32% of all consumers would walk away from a brand they loved after just one bad experience.



Source: PWC *Future of Customer Experience Survey*, 2018.

20 Raj Venkatesan and Jim Lecinski, *The AI Marketing Canvas: A Five-Stage Road Map to Implementing Artificial Intelligence in Marketing* (Redwood City, CA: Stanford University Press, 2021).

21 Baiju Shah, Lisa De Bonis, Flaviano Faleiro, and Nevine El-Warraky, “Growth: It Comes Down to Experience,” Accenture, 2020, [https://www.accenture.com/us-en/insights/interactive/\\_acnmedia/Thought-Leadership-Assets/PDF-3/Accenture-Interactive-Business-of-Experience-Full-Report.pdf](https://www.accenture.com/us-en/insights/interactive/_acnmedia/Thought-Leadership-Assets/PDF-3/Accenture-Interactive-Business-of-Experience-Full-Report.pdf) (accessed Sept. 14, 2021).

# Ethical Use of Data: Doing Right by Customers

## Consumer Data Collection and Use

In today's business environment, the appetite for consumer data is growing, increasing the danger of data misuse. Recently, consulting firm KPMG asked 250 business executives in US companies with more than 1,000 employees about data privacy.<sup>22</sup>

**70%**

say their company increased collection of consumer personal data over the last year

**62%**

say their organization should be doing more to strengthen existing data-protection measures

**33%**

say consumers should be concerned about how their personal data is used by their company

**29%**

say their company sometimes employs unethical data-collection methods

Source: KPMG, 2021.

**DATA IS THE FUEL** of the digital economy. But the widespread collection, analysis, and use of massive troves of data raise many ethical concerns.

Real-life examples of data misuses abound. Facebook was infamously investigated and fined for giving access to its 87 million users' personal data, without their knowledge or consent, to a political consultancy, Cambridge Analytica.<sup>23</sup>

Darden Professor Yael Grushka-Cockayne, an expert on decision analysis, forecasting, project management, and behavioral decision-making, is particularly concerned about the ubiquity of data and algorithms that are widely available to people who aren't qualified to handle them. "Google and Microsoft have democratized data science tools and algorithms, but they are providing easy access to the public to cutting-edge techniques, such that nearly anyone can use them," says Grushka-Cockayne. "The question is, are we going in the right direction or are we going to regret this?"

When people who aren't properly trained use customer data in a business context, it can lead to costly mistakes—such as biased algorithms—that erode the public's trust in data-driven technologies. "If those negative perceptions become entrenched," says Grushka-Cockayne, "we risk missing out on the enormous opportunities and benefits data, AI, and machine learning offer to improve people's lives and help grow the economy."

Customers are an important stakeholder group and harming them through intentional or unintentional misuse of their data can affect a company's bottom line. Even if the data use is technically lawful, violating customer trust can lead to reputation risk and decreased brand loyalty. It is for this reason that establishing ethical frameworks to address issues such as data privacy and security is in every company's best interest.

## Navigating the AI Future

**WITH AI'S GROWING** presence in our homes and offices, it isn't hard to imagine a future in which AI technologies are integrated into all aspects of our lives. What's harder to imagine is how disruptive and far-reaching AI's power might prove.

That's why there's a broad consensus among Darden experts that steering the progress of AI technologies and managing their seemingly endless proliferation requires a holistic perspective grounded in the stakeholder view of business in society. If AI systems are created for the benefit of all, they have the potential to help us solve many intractable problems facing humanity. They can also open up opportunities for easier, safer, and more productive and fulfilling lives.

"Darden has always been concerned about the broader impact of technology on society," says Professor Mike Lenox. "With its multi-stakeholder approach to thinking about the world, Darden is well positioned to understand not only the opportunities of AI, but also the challenges associated with AI."

The Darden Intelligence Initiative will explore the challenges and opportunities of AI in more depth through executive roundtables, webinars, and articles as well as in MBA, EMBA, and Executive Education coursework. More information about those events and learning opportunities can be found at **The Darden Intelligence Initiative** website: <https://www.darden.virginia.edu/intelligence>.

*The Darden Intelligence Initiative is a joint effort between Darden's*  
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<sup>22</sup> Orson Lucas, Martin Sokalski, and Rob Fisher, "Corporate Data Responsibility: Bridging the Consumer Trust Gap," KPMG, August 2021, <https://advisory.kpmg.us/articles/2021/bridging-the-trust-chasm.html> (accessed Sept. 14, 2021).  
<sup>23</sup> Editorial Board, "A Fine for Facebook Won't Fix Privacy," *New York Times*, July 26, 2019.