



Ethical tech: Making ethics a priority in today's digital organization

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Ethical tech

**Making ethics a priority
in today's digital organization**

BY CATHERINE BANNISTER, BRENNAN SNIDERMAN,
AND NATASHA BUCKLEY

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Yes, disruptive technologies enable tremendous opportunity for organizations to become smarter, more agile, more flexible, and more responsive. But technologies are becoming integral to organizational processes before many people have fully considered the ramifications of their usage.

As some leaders are learning, some applications, devices, and systems raise ethical dilemmas each time employees use them. Stories of organizations encountering new challenges related to privacy, algorithmic bias, and a range of other technology-related ethical issues illustrate the reputational and even financial risks for organizations.

But organizations and their leaders seldom develop an overall approach to the ethical impacts of technology use—at least not at the start of a digital transformation. Further, companies that don't consider technology to be their core business may simply assume that these considerations are largely irrelevant, even as they increasingly rely on advanced digital and physical technologies to run their day-to-day operations.

For most organizational leaders, it's no longer possible to *not* be enmeshed in technology, no matter the industry or sector. Leaders and their organizations simply can't call themselves technologically savvy if they're not thinking about the ethical implications of how their employees, customers, and others within their ecosystems are using technologies.

In fact, the ethical use of technology, or *ethical tech*, is inextricably linked to, and an extension of, tech-savviness. Being tech-savvy means more than being able to define use cases for cloud or artificial intelligence (AI)—it extends to understanding some of the potential ethical dilemmas that designing or using these technologies can present. Indeed, to be truly savvy in the age of advanced, connected, and autonomous technologies, leaders should think beyond designing and implementing

technologically driven capabilities. They should consider how to do so responsibly from the start.

Over the past year, Deloitte has conducted multiple global quantitative studies examining broader questions around digital transformation,¹ attitudes toward the Fourth Industrial Revolution,² and the development of specific technologies such as AI.³ Each of these studies asked at least a few questions about leaders' thinking around ethical uses of technology. As authors of and contributors to those studies, we were curious if there were common themes emerging from the respective data sets that could provide insight into not only technological progress but progress with respect to ethical tech.

The ethical use of technology, or *ethical tech*, is inextricably linked to, and an extension of, tech-savviness.

Looking across this data, we see a relationship between a company's digital and technological progress—in other words, its tech savviness—and its focus on various ethical issues related to technology. Our research suggests that companies that are more advanced digitally tend to be more concerned with and focused on technology-related ethics than companies still early in their digital journey. But it is not this technological maturity alone that appears to drive their focus on ethical tech. These companies are also typically supported by leaders committed to exploring and considering the intended and unintended impacts of technology

WHAT DO WE MEAN WHEN WE TALK ABOUT ETHICAL TECH?

When we consider the question of ethics, it is critical to draw the distinction between *corporate and professional ethics*—ethics related to questions of business, professional conduct, humane treatment of workers, and/or corporate and social responsibility—and *ethics of technology*. What do we mean when we use the latter term?

The World Economic Forum argues that “technologies have a clear moral dimension—that is to say, a fundamental aspect that relates to values, ethics, and norms. Technologies reflect the interests, behaviors, and desires of their creators, and shape how the people using them can realize their potential, identities, relationships, and goals.”⁴

Ethical tech is, at its heart, a conversation focused on the relationship between technology and human values, the decisions we make toward technological advances, and the impacts they can have. The notion of ethical tech refers to a set of values governing the organization’s approach to its use of technologies as a whole, and the ways in which workers at all levels deploy those technologies to drive business strategy and operations. It is a multifaceted concept that can encompass a wide variety of issues, from data privacy to bias in algorithms, from replacing humans with machines to a commitment to not manipulating data or human responses. And just because organizations may not have developed ethical tech frameworks doesn’t mean leaders are ignoring issues: Deloitte’s research suggests that leaders’ biggest social and ethical concerns brought about by digital innovation apart from privacy are related to cybersecurity risks, job replacement, and the unethical use of data.⁵

As we examine what ethical tech *is*, it is also important to specify what it is *not*. It is not limited to general compliance-related issues or questions of legality; it is neither a stand-alone, siloed effort nor a black-and-white set of blanket policies that dictate strict *right* and *wrong* answers to every scenario. Ethical situations are unique and varied, and a robust ethical tech program allows leaders and employees to apply a decision framework to each situation to make the most appropriate judgment.

disruptors, surrounding themselves with input from a diverse and inclusive set of stakeholders, and fostering an organizational culture of continuous learning, debate, transparency, and open dialogue.

What lessons can leaders and their organizations take from these findings as they consider their own approaches to technology? And given the pace of change around advanced technology today, how can leaders continue to build their organizations’ digital maturity and tech savviness while creating an overarching approach to ethical tech that can remain relevant in the future?

Here, we seek to answer these questions by drawing on insights from the surveys and analysis

from our recent global studies, as well as lessons drawn from our work on tech-savvy leadership. Indeed, ethical tech can be thought of as an enabler of growth on an organization’s digital journey and a natural extension of tech-savviness rather than just one more compliance requirement.

Organizations turning an ethical lens on technology

Organizations of all ages, sizes, and sectors pay attention to corporate and professional ethics. Most companies have a code of conduct, and most, if not all, HR leaders consider ethics integral to their work and their organization. However, the

ethical use of technology is less understood for many organizations and their leaders. In a 2019 study, fewer than a third (30 percent) of respondents completely agree that their leaders are highly concerned with ethically using Industry 4.0 technologies.⁶ Similarly, another recent study found that just 35 percent of respondents believe their organization's leaders spend enough time thinking about and communicating the impact of digital initiatives on society.⁷

While it may make sense to see ethical tech as a yet-to-be-explored discipline given that many organizations are still learning to be “tech organizations,” we found in our research that some companies—both technology-based digital native companies and non-digital natives—are engaging in ethical decision-making in the design and adoption of disruptive technologies from the start. Which organizations are these, and more importantly, why are their leaders more focused on the ethical use of technology than others?

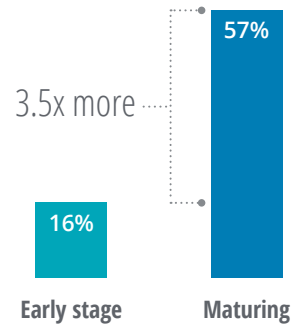
THE LINK BETWEEN DIGITAL MATURITY AND TECH-SAVVINESS

One reason why some organizations pay more attention to ethical tech may have to do with their level of digital success. Companies that are more digitally advanced appear to be more committed to understanding the implications of the technologies with which they work. Approximately 57 percent of respondents from organizations considered to be “digitally maturing” say their organization's leaders spend adequate time thinking about and communicating digital initiatives' societal impact, compared with only 16 percent of respondents from companies in the early stages of their digital transformation (figure 1). Further, nearly 80 percent of the digitally maturing companies surveyed have explicit policies in place to support their ethical standards with respect to digital initiatives, versus only 43 percent of early-stage companies.⁸ And these digitally maturing companies are not limited to digital natives.

FIGURE 1

Leaders at digitally maturing companies are 3.5x more likely to be thinking about tech ethics

Percentage of “strongly agree” and “agree” responses



Source: MIT Sloan Management Review and Deloitte research conducted for Gerald C. Kane et al., *Accelerating digital innovation inside and out: Agile teams, ecosystems, and ethics*, Deloitte Insights, June 4, 2019.

Indeed, digital maturity may breed a rise in ethical awareness. With respect to specific technologies, for example, the continued growth of AI has led to increased concern about the ethical implications of implementing a technology capable of “higher thought” and decision-making. As with digital maturity in general, recent global AI research suggests that those companies with more experience in leveraging AI specifically are also more likely to be concerned with its ethical risks: As the number of AI production systems undertaken by a company increases, respondents' stated concern about the ethical risks of AI grows as well.⁹

Early on, as a company begins to implement AI systems, leaders' primary concern is likely learning how best to leverage the technology and how to acquire the skills needed to implement new AI systems—rather than, say, consciously building in responsible approaches from the start. As a company gains experience implementing these initiatives, awareness and understanding of potential ethical challenges such as algorithmic bias or the potentially significant effects of

inaccurate data sets on autonomous decision-making—both ethically and financially—may start to become evident. At this point, leaders can hardly avoid contemplating ways to anticipate and address potential ethical issues.

The connection between being tech-savvy and a focus on responsible use of technology can be understood in several additional ways. First, given their position further along the digital journey, those organizations that are more advanced digitally have the benefit of experiencing firsthand the ripple effects of a disruptive technology, whether in their product or service offerings or in their business processes. They may also find they need to care more about ethics as a matter of both practicality and necessity: They have more at risk if an issue or ethical breach arises and, given the relative pervasiveness of technology across their operations, a higher likelihood that related ethical questions will arise.

In contrast, companies still in the early stages of digital transformation may not be focused on ethical tech because they may still be trying to determine what their digital strategy is, including which technologies will be involved. Due to their relative lack of experience, leaders also may not fully appreciate particular technologies' potential implications or downstream effects.

The impact of a culture of responsibility on ethical tech

On a deeper level, leaders and organizations reporting a higher concern about ethical tech demonstrate several additional characteristics that may further explain why they pay attention to this topic more than others. While any one organization may not display all of these characteristics, taken together they point to something noteworthy: The notion that leaders and organizations that possess cultures focused on a bigger picture—one beyond their own sphere

looking back **Deloitte on technology and ethics** 1977

“A serious question faces our society today: Can it guarantee each citizen’s constitutional right to privacy, given the magnitude of information that is routinely collected in the files of both government and business? In the public’s mind, this concern is linked to a developing technology that enables one’s personal history to be flashed on a screen at the touch of a button. What is the role of the computer in this issue of information privacy? Are the public’s concerns valid?”

Donald R. Wood
Principal, Touche Ross



of responsibility—may also be more likely to consider the implications of new technologies on their community, society, and the future.

A deeper commitment to social impact.

Companies that are more concerned with the ethical implications of technology may be predisposed to think about potential ethical challenges in general. For example, we find in our Industry 4.0 research that leaders in organizations that aim to ethically use Industry 4.0 technologies are more likely to report developing socially conscious products or services. Fully 62 percent of respondents who “completely agree” that their organization is highly concerned with ethically using Industry 4.0 technologies report that their organization generated new revenue streams from socially conscious products/services in the most recent fiscal year, compared with 50 percent of those who report lower levels of concern.¹⁰

Companies that are more concerned with the ethical implications of technology may be predisposed to think about potential ethical challenges in general.

More likely to support inclusion and diversity.

Most leaders understand the need for diversity and inclusion for numerous reasons related to business and ethics, but the degree to which they apply their values to day-to-day decision-making varies. Organizations should cultivate a diverse set of voices and experiences to explore and mitigate for potential consequences of technology. Such diversity can also generate trust

between an organization and its stakeholders, critical to generating broad commitment and engagement for ethical tech. Our Industry 4.0 research suggests that companies more focused on ethical tech are more than twice as likely to make strategic technology decisions based on the input of a diverse and inclusive set of stakeholders (32 percent) as those less concerned with tech ethics (15 percent).

Ready to embrace—and lead—times of change.

Leaders who report that their organization is highly concerned with ethics are also far likelier to note that they feel ready to lead their organization through the changes associated with the Fourth Industrial Revolution, with 48 percent noting this compared with 28 percent of those whose organizations are less concerned about ethics. This general feeling of readiness may go hand-in-hand with tech savviness, as our research has also shown that leaders with the most

experience and familiarity with advanced technology are also far more likely to feel prepared to lead, hire, and train their talent.¹¹

Structured decision-making behaviors embedded in the culture.

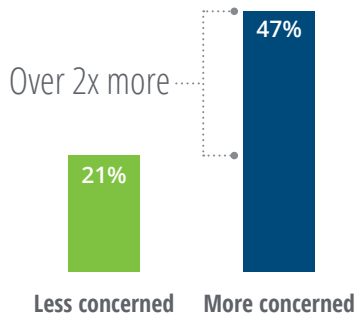
Leaders who follow an orderly process or framework when making strategic technology decisions provide clarity and structure for organizations to advance digitally. In addition, a structured approach to making technology

decisions may provide greater visibility into potential ethical issues and how to manage them. The Industry 4.0 study notes that only three in 10 leaders completely agree their organizations have clearly defined decision-making processes to support Industry 4.0 development. And those organizations with a clear approach to decisions also appear to be more concerned with ethical tech: Nearly half (47 percent) of respondents whose

FIGURE 2

Those who are more concerned with the ethical use of Industry 4.0 technologies are more likely to have a clearly defined decision-making process

Percentage of “strongly agree” responses to “My organization has a clearly defined decision-making process”



Source: Research conducted for Punit Renjen, *How leaders are navigating the Fourth Industrial Revolution: Our latest survey of Industry 4.0 readiness*, Deloitte Insights, January 20, 2019.

organizations are concerned follow clearly defined decision-making processes; among those who are less ethically concerned, only 21 percent say the same (figure 2).

Beyond culture: The role of leadership

When it comes to setting expectations, leaders typically play a critical role in creating a culture that ensures both their organizations and the people within them consider technology’s implications for their stakeholders and make decisions with those potential effects in mind.¹²

Leaders, in particular, are in a position to help their organizations look at the bigger picture and adopt the sense of responsibility necessary for supporting ethical decision-making. They should not only

clearly communicate their own positions on the importance of ethical behavior but set the tone to help their teams develop an ethical mindset that they can infuse into their roles and daily decisions.¹³

Some organizations are signaling that their leaders recognize this mandate by appointing chief ethics officers to deal with general questions of corporate and professional ethics. In fact, leaders who have long worked to instill an ethical mindset in general business practices can use that attitude to inform not only their companies’ use of specific technologies but also their technology strategy as a whole—positioning them, in many cases, as industry leaders. Indeed, questions around the social and ethical implications of technology use are giving rise to new types of ethics leaders focused specifically on these topics.¹⁴

For example, Salesforce has appointed a chief ethical and humane use officer to guide the company’s use of technology. The function aims to ensure that the company has a clear framework in place to guide technological decisions, with the executive bringing together internal and external stakeholders and experts to ensure the framework is flexible enough to account for emerging technology use cases and transparently communicated throughout the organization.¹⁵ For their part, leaders at Microsoft recently created an AI and Ethics in Engineering and Research Committee, composed of senior leaders from across the company working together to proactively monitor and address issues that may arise as the company advances development of its AI platform and related solutions. Examples of areas on which the committee has focused include addressing bias in AI systems and implementing requirements of the General Data Protection Regulation.¹⁶

The board’s role is another important component in helping business leadership sense and anticipate the risks and opportunity of technology,

and create a culture that embraces ethical technology decision-making. Not only can the board help the organization develop a “holistic” understanding of technology and strategy—board members can use their own unique leadership experiences to provide additional perspective on the ethical implications of technology design and use. While leaders should consider having at least one technologist on the board, directors need not all be experts in technologies such as AI and blockchain. Bringing strategic and operational expertise to bear, and taking steps to be more collectively tech savvy, are ways boards can support and guide the organization with an awareness of ethical tech considerations.¹⁷

Finally, just because leaders may not be making ethical tech an express area of focus doesn’t mean it’s not a concern. Even if they have no specific program or initiative in place, tech-savvy leaders may be more concerned about ethics and advanced technology than they think they are. For example, data from Deloitte’s global AI study demonstrates that leaders are concerned about a variety of factors related to AI. While 32 percent of respondents rate “ethics” in general as a top-three area of concern, many of the other areas of concern also map closely to ethical concerns: fear of making the wrong decisions, a technology or algorithmic failure in a life-and-death context, being held legally responsible for failures, and technological failures that erode consumer trust.¹⁸ These concerns can, in turn, filter into more ethically driven policies or practices, even if there is no overarching, formalized approach to responsible use of technology. Indeed, prioritizing responsible tech use at the leadership level can motivate organizations to create a broader set of resources, assets, and tools to help people

recognize ethical dilemmas, evaluate alternatives, and make technology decisions.

Next steps for leaders and their organizations: Embrace an ethical technology mindset

It is becoming increasingly important for tech-savvy leaders and their organizations to be aware of ethical decision-making’s role with respect to technology disruptors. It’s not enough to adopt the vocabulary and syntax of technology disruption. Organizations also need to learn to recognize the ethical issues those disruptors may introduce and build the muscle memory to apply a consistent method for identifying ethical courses of action. Leaders and employees can build this muscle memory through their commitment to ethical decision-making and by promoting a culture that supports it. The *ethical tech mindset* reflects the cultural characteristics that leaders and their employees can embrace to support their efforts (figure 3).

It is becoming increasingly important for tech-savvy leaders and their organizations to be aware of ethical decision-making’s role with respect to technology disruptors.

- **Drive toward a shared, inclusive, cross-functional responsibility.** Ethical tech is a shared responsibility that should engage all functions and be championed at the top. When speaking of ethics and AI technologies, Mala Anand, SAP president of intelligent enterprise

FIGURE 3

The ethical tech mindset

-  Drive toward a shared, inclusive, cross-functional responsibility
-  Be ethically driven from the start
-  Make ethical tech part of a holistic, tech-savvy approach
-  Make it relevant, specific—and flexible
-  Make sure it's more than compliance
-  Equip your people with the resources to respond
-  Ensure your approach can evolve

Source: Deloitte analysis.

solutions and industries, notes, “Delegating responsibility [to the technology department] is not the answer. Creating ethical and effective AI applications requires engagement from the entire C-suite. Getting it right is both a critical business question and a values statement that requires CEO leadership.”¹⁹ Additionally, since most if not all individuals within an organization use technology to some degree, ethical tech is a topic that touches everyone. Leaving the responsibility of its development to a few groups or functions can promote the idea that it’s not something everyone needs to think about.

- **Be ethically driven from the start.** To be proactive and stay ahead of potential ethical tech challenges, consider designing new

technology-driven products and services with ethical principles in mind from the start. This can help organizations to anticipate and avoid, rather than having to be reactive after a situation arises. Instead of tacking on ethical ideas at the end of the product development cycle, consider incorporating ethical tech considerations at the beginning of your tool/strategy and product/service design.

- **Make ethical tech part of a holistic, tech-savvy approach.** Ethical tech policies are not meant to replace general compliance or business ethics but rather to strengthen them. Just as your approach to cybersecurity hasn’t taken the place of your company’s more general privacy policies, your ethical tech approach should complement, not replace, your overall approach to ethics and serve as its logical extension in the digital realm. At the same time, however, many companies are expanding the mission of existing functions (compliance and ethics, learning and development, inclusion, etc.) to include ethical tech, as well as maintaining a connection to a separate technology ethics program. Doing so can help keep technology ethics top of mind across the organization and encourage executives to consider the distinctions between technology-related ethical issues and broader corporate and professional ethics concerns. These connections can also help avoid the creation of functional silos with respect to ethics overall.

- **Make it relevant, specific—and flexible.** Develop a guiding framework that addresses technology use cases specific to your organization and its culture. As you work through the ethical tech decision-making framework, test out its relevance by applying it to specific technology use cases your organization regularly encounters and the way your people work, both together and individually. This can help ensure that you can

craft guidance that is both relevant to your needs and sufficiently flexible to evolve with new technological implementations.

- **Make sure it's more than compliance.**

Ethical tech awareness, recognition, and decision-making frameworks should be part of the organization's cultural DNA—and not “just” a compliance or policy activity. It's important that everyone in the organization recognizes potential technology-related ethical dilemmas. People who aren't directly involved or responsible for technology shouldn't be able to use that as an excuse to remain unaware of the potential for issues to arise and to be able to recognize them even when they are less obvious. This is especially key for non-digital native organizations, where the ripple effects of day-to-day uses of technology may be less obvious to leaders and teams.

- **Equip your people with the resources to respond.**

Teams and individuals should have the resources they need to make ethical decisions regarding technology. As with most issues bigger than any one person, when faced with the growing number of potential technology ethics challenges that can arise, workers are likely to wonder what they can do. It is, therefore, important that organizations provide their workers with the relevant resources, assets, and tools to help employees recognize ethical dilemmas, evaluate alternatives, and make (and test) ethical tech decisions.

- **Ensure your approach can evolve.**

With technology evolving rapidly and unpredictably, approaches to ethical tech cannot be “set it and forget it”—they should be evaluated and updated as needed. Given the speed with which markets are changing, policies developed even in the past few years may not directly address current risks. When developing policies or

frameworks to guide technology decisions, do so with an expectation that they will likely need to adapt and adjust as technologies change and market conditions evolve.

Concern about the ethics of technologies is nothing new. But as organizations accelerate their use of disruptive technologies throughout their business processes, products, and services, leaders cannot lose sight of the ripple effects—and potential ethical considerations—that result.

Indeed, regardless of how advanced your organization is digitally, every organization is becoming a technology organization. Therefore, ethical tech matters. While our research conducted over the past year demonstrates how digitally advanced organizations are more focused on ethical tech, it's likely that the prioritization level has increased overall and that even more organizations are making it a priority in the wake of ethical dilemmas highlighted in the news and in political debates. Leaders should examine technology choices from multiple angles to ensure the decisions they make on how to use disruptive technologies are not only strategic but savvy.

For those leaders who have yet to make ethical tech a focus, the opportunity to begin is now. For those leaders who are more focused already, keep in mind that the speed with which markets are changing and technology is evolving may render ethical technology policies developed even in the past few years inadequate to address current risks.

Ethical tech depends on leaders making it a priority, molding it into the culture of their organizations, and developing ethical decision-making processes that are considered, thoughtful, and driven by technological experience and a diversity of input. By embracing an ethical technology mindset, organizations can anticipate and respond to ethical challenges that emerge over time. ●

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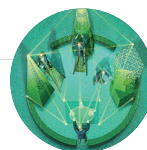
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