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Ethical technology is a team sport

Addressing the ethical impact of technology requires everyone's participation

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To change the culture and make certain that ethics are not an afterthought, workforces should include tools, advocacy, and a structure that empowers more diverse thinking.

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Introduction

It used to be that trust in an organization regarding its use of technology was centered around data: how it was secured, shared, used, and managed. These were mostly questions of compliance and transparency. As disruptive technologies filter into the mainstream of professional and personal settings, they have pushed ethical questions about technology's design and use into the forefront, where regulation is still being defined.

Organizations are feeling pressure, both from their boards and workforces and from external stakeholders, to contend with issues of bias, equitable access, environmental impact, and other ethical effects of technology. These concerns can affect how or if new technologies can be rolled out effectively and what limits might need to be established for their use.

Until recently, these concerns had generally been left up to the creators of new technologies. After all, shouldn't they have put in guardrails to make sure that their products and solutions were only used for the right reasons? The reality is, with the proliferation of technology's use across business, from personnel management software to surveillance systems to financial analysis tools, everyday tasks may have ethical implications.

On its own, technology is neither ethical or unethical, but how technology is designed and used can lead to unintended consequences. The impact of a disruptive technology may not even be recognized until the tool is fully entrenched, and the exponential pace of technological innovation means that these dilemmas can crop up more frequently. Deloitte has been addressing this critical junction of ethical technology and trust for some time, highlighting many of the latest challenges in our Tech Trends 2020 report.

The impact of technology and the ethical dimensions of its use are firmly tied to issues of trust. According to the 2021 Edelman Trust Barometer,[1] trust across all business sectors declined from 2020 to 2021, but for the technology industry as a whole, trust has dropped by 9% over the past 10 years. While this decline may be intertwined with distrust in Big Tech's business model, similar misgivings may also be aimed at organizations that are increasingly building and leveraging technology for their services and solutions.

The report also shows that most customers, employees, and shareholders now expect business leaders to take the lead when government fails to address societal issues, and two-thirds of respondents say companies shouldn't wait to be regulated; they should enact change and be accountable to the public. But for many organizations, a structure for identifying and addressing ethical technology concerns simply doesn't exist.

Appointing a chief ethics officer or forming an external technology ethics advisory board are steps some companies are taking to address these concerns. But there's another solution organizations should embrace: a more participatory, dialogue-based effort that embraces input from employees, both technologists and nontechnologists, leading to more inclusive, ethical decisions. This dialogue should live in interdisciplinary teams and not only in the C-suite.

1. https://www.edelman.com/sites/g/files/aatuss191/files/2021-03/2021 Edelman Trust Barometer.pdf

Some organizations are exploring virtual reality as a training tool that provides employees with an immersive experience where they can practice skills in a safe environment. The data collected through virtual reality training can provide insights on employees that traditional training methods had not previously captured; when aggregated at the organizational level, this data may highlight skills gaps and help inform recruiting needs. But this application of VR can also present data privacy implications and may not be an equitable measure of individuals' skills. Developers and trainers need to choose scenarios carefully for this form of training to ensure it measures the employee's competency at the task and not their proficiency with the VR interface.

First steps: Awareness and engagement

People make ethical decisions every day, but they often don't think of them in that way. Despite this, most organizations have never asked their employees to think specifically about ethical tech concerns. To do so, the workforce requires the tools, training, and processes to identify and address ethical technology issues along with institutional support. Without this foundation, they may not recognize ethical dilemmas, or know that they can (and should) speak up.

Helping your workforce understand their role and responsibility in ethical technology decision-making can be crucial to engaging them in conversations about how technology is designed and used.

Consider automated systems that make decisions without human intervention. These may be seen by some as a positive, labor-saving advance, but to others, it's a chilling concept, with machines making purely logic-driven decisions that may negatively affect humans. The truth is somewhere in between: The ways that systems are coded and applied in real-world scenarios can lead users to ethical crossroads.

Not everyone will immediately grasp the relevance of ethical tech decisions to their lives or their work. Finding examples and context that align with a variety of experiences is often a critical step toward engaging everyone in the effort. At Deloitte, our Tech Savvy initiative means that we expect all our practitioners to be conversationally competent in technology disruptors and their business implications, including the potential ethical impacts. It's not only a top-down requirement, but also a core part of the Deloitte culture.

Leadership should identify prioritized groups—those areas within the business that may be on the front lines of confronting these concerns. Deloitte's Innovation & Products team has done just that, creating a process called the "ethical tech check." This consists of a structured investigation into each technology asset's potential ethical concerns and defines what teams should do when faced with particularly tricky or risky projects.

A lack of trust can cost global brands upward of $2.5 trillion per year, as concerns about unethical corporate behavior continue to roil markets.

Shifting the culture

Thinking about the unintended impacts of technology requires an awareness and a mindset that prioritizes and values ethical tech dialogue and debate. Leadership should provide support and structures to speed the adoption of new thinking.

Realistically, a number of forces influence how decisions are made in every organization. Are market pressures outweighing human concerns about technology? Does efficiency matter more than environmental impacts? In order to address those issues, leaders should start by addressing more basic questions: What is the purpose of the organization or its core values, and do these conflict with the application of technology?

If your hiring process involves résumés being machine-read and rejected because of certain keywords, is that a time-saver or an impenetrable barrier to certain job-seekers? As always, it depends. If the algorithm excludes candidates based on their ZIP code or phrases that hint at their race or ethnicity, then this could be reinforcing systemic bias. But if the software is only checking for specific skills, experience, or education required for the position, that may achieve the aims of the technology.

While software developers may have ethics top of mind, other groups in the organization, including the nontechnologists selling and applying the technology, may not be as attuned to potential ethical dilemmas. This is an opportunity to apply the concept of radical inclusion: designing *with*, as well as *for*, people.

This can mean not just designing for hypothetical user profiles, but inviting actual users (including secondary users) into the design process to truly understand the impact of a technology solution on a variety of stakeholders. Historically, most employees have not been asked to apply a critical ethical lens to technology; for many organizations, a fundamental change to a more inclusive environment is necessary.

Empowering the workforce

Creating an ethics-focused environment often takes governance built around employee teams, which can take on both responsibility and accountability. The governance structure can be flexible, allowing teams to take different approaches, but can also help identify potential areas to drive consistency around processes and how issues of data use, privacy, and consent are handled.

These teams require diversity of experience and thought, which creates more space for outcomes and impacts to be considered. Organizations with diverse leadership teams tend to out-innovate and outperform others; these organizations are 45% more likely to report growth in market share and 70% more likely to report capturing a new market.[2] Without participation from a wide range of stakeholders, teams should ask themselves, "Whose perspective is missing, and how can we seek it out?" That's why it's important to remove excuses for opting out of the process. Instead, organizations should promote the idea that everyone has a role to play. Both technologists and nontechnologists can and should contribute to these debates.

With this empowerment comes responsibility; these teams should be accountable for their processes and decisions. Teams could be asked to show their "moral math": how they're approaching ethical considerations and forming a solution.

While a top-level advocate and leader, such as a chief ethics officer, can provide resources, support, and two-way reporting between teams and the C-suite, this is a team-focused activity. Escalation paths should be consultative groups, potentially with senior practitioners providing clarity and expertise.

When just one member of a leadership team shares a targeted customer's ethnicity, the entire team is 152% more likely to understand the customer.[3]

2 Sylvia Ann Hewlett, Melinda Marshall, and Laura Sherbin, "How diversity can drive innovation," *Harvard Business Review*, December 2013.
3 Ibid.

Developing the skills

There are currently five generations of workers in the workforce. Until recently, most earning a technology-related degree did not encounter ethics beyond a stand-alone course, and in any case, they likely did not grapple with the dilemmas presented by today's emerging technologies.

Many people in today's workforce will need to develop the skills to identify and interrogate ethical technology dilemmas. It is leadership's responsibility to provide training and reinforcement; the skills and terminology an organization adopts for ethical decision-making should be applicable to any technology. For employees to participate in these debates, they need a common vocabulary that allows everyone to start from a similar foundation.

Balancing risks with benefits should be considered a crucial element of implementing any new technology, and understanding how to identify and debate the issues and make ethical choices is incumbent on those who use that technology.

Deloitte's recent State of AI in the Enterprise, 3rd Edition study of enterprise AI adopters found that 95% of respondents have concerns about ethical risks of the technology.

Deloitte has studied new applications of emerging tech to build a collection of use cases where ethical technology concerns may arise. It was important that we focus on technology applications our practitioners could reasonably encounter. Increasing the relevance of ethical technology concerns to relatable examples—think less "self-driving vehicles" and more "digital transformation"—can make it easier for practitioners to understand how ethical technology applies to the work that they do and to start applying ethical technology principles in their day-to-day work.

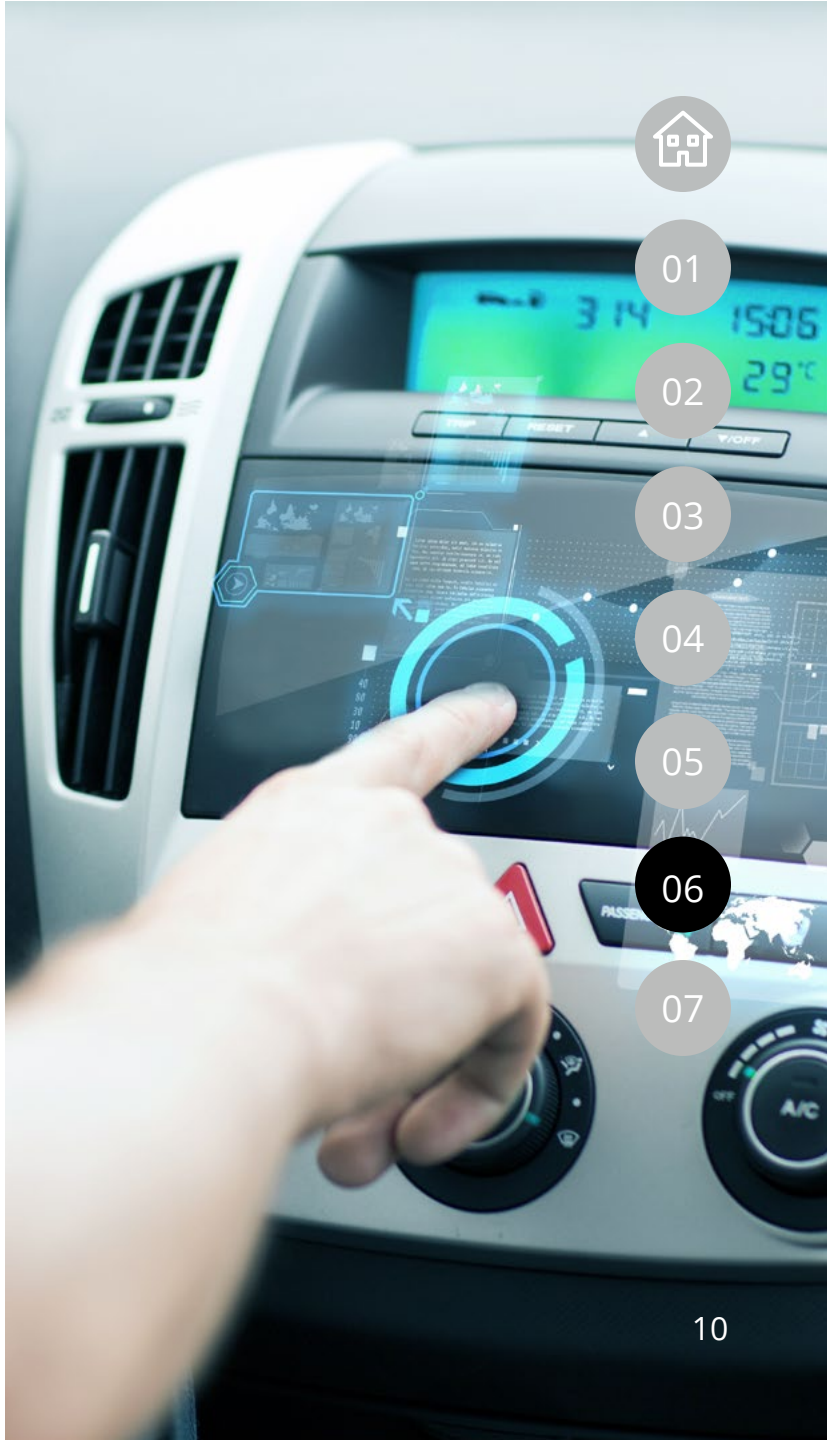
The cultural shift has only just begun

For many, the area of technology ethics is still in the early stages of understanding. Societal standards evolve, and ethical issues are often subjective. Technology is evolving at a breakneck pace, creating new capabilities and introducing new ethical questions at the same time.

It is important to build a solid foundation for identifying and addressing ethical technology issues so employees are prepared to face future challenges. Each organization should determine what it means for them, influenced by societal shifts, new capabilities, stakeholder concerns, and a vision of how to act as part of a greater community.

This isn't always easy or clear-cut. False starts are likely, and the need to correct and adjust will likely be ongoing. If, for example, someone joins a design team and sees only homogeneity, will the members of that team be ready to question its processes and decisions regarding technology use? Should a "designated dissenter" be appointed? In what ways can greater representation be added?

These are decisions organizations are expected to face. To change the culture and make certain that ethics are not an afterthought, workforces should include tools, advocacy, and a structure that empowers more diverse thinking. Teams, training, and support for hearing every voice are important, recognizing that change will be ongoing and should become part of the organization's DNA.



Deloitte is living the journey

Our belief in a diverse, inclusive, and equitable workplace applies to how we use technology for ourselves and engage with others. We are evolving our approach to ethical technology to reflect the continually changing nature of these challenges.

As part of that evolution, we regularly apply lessons learned; like every organization, we recognize that this is a process. We have incorporated a team structure and other ideas as presented here, but we know this is a learning journey, and there is more we'll need to do as we scale our findings and path forward across our organization.

The ethical interrogation of technology's potential impacts is a skill that should be learned and nurtured. We want our people to consistently apply rigorous methods to all new technologies and uses of technology. Questions about the accuracy and timeliness of results should be balanced with issues of privacy, fairness, and impact on communities at large.

Building on our own experiences and those of others who are building out their programs, our Trustworthy and Ethical Technology team has insight into things that have worked and which paths are less likely to yield positive results. Trustworthy and Ethical Technology is fundamental to Deloitte. We look forward to engaging with others who share this vision, enabling greater fairness and inclusivity while powering technology that can provide a better future for all.

The question that should be asked at every stage of decision-making is, "Just because we can, should we?"

Applying the Markkula Framework

We have collaborated with the Markkula Center for Applied Ethics to develop training for our people and adapted its framework for a consistent approach to identify, debate, and resolve technology ethics questions:

- What are the goals and benefits (business and ethical) of the technology?
- Who are the stakeholders involved in the deployment of this solution?
- What are some of the ethical issues that you foresee with the deployment or use of such technology?
- Does use of ethical lenses (rights, justice and fairness, utilitarianism, common good, and virtue) uncover any additional issues or considerations?
- Considering the issues you have identified, what is your recommendation for addressing them?

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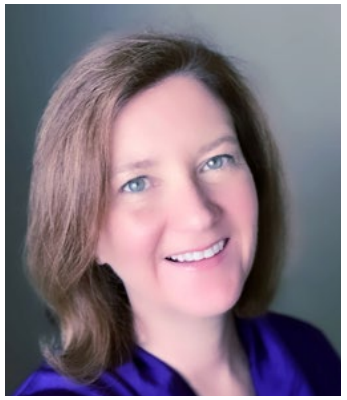
Acknowledgments

About the author



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Catherine Bannister is a Deloitte managing director responsible for driving a firmwide strategy around ethical technology and activating Deloitte's commitment to leading and applying techniques to our own technologies, processes, and people, ultimately helping those efforts take root across society. Catherine also leads strategic enterprise workforce experience for technology talent at the Deloitte US firms.

Catherine has served in several leadership roles at Deloitte, including US Development & Performance leader, chief talent officer for the US and global Deloitte Consulting technology practices, and member of the Deloitte Foundation board of directors. With more than 25 years of experience with Deloitte, Catherine has developed transformative technology solutions for Health & Human Services agencies in US state governments. Catherine is the architect of both Deloitte's Tech Fluency program to develop and cultivate breadth and depth of technical capabilities and Tech Savvy program, which enables Deloitte professionals to be conversant in disruptive technologies.

Catherine is a graduate of Loyola University Chicago and Purdue University.

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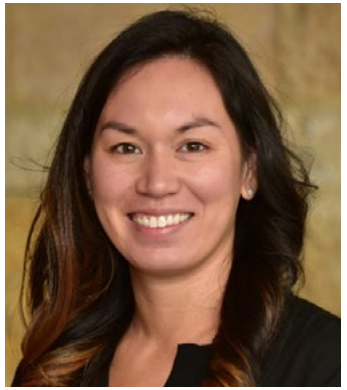

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In her 14 years in consulting, Jessica Sierra has stood up new strategic firm initiatives and supported clients across the health, defense, and intelligence sectors driving technology innovation, secure supply chain, counterintelligence, and business process improvement.

Jessica is currently part of Deloitte's Trustworthy and Ethical Technology program, with a specific focus on bringing tools and resources to Deloitte's employees on how to approach ethical tech decision-making and setting controls for the organization to help activate this behavior.

Prior to her work in ethical tech, Jessica stood up the Executive Women in Tech program to engage, support, develop, and connect C-suite female tech executives. She also helped develop the Diversity & Inclusion in Tech thought leadership series. Throughout her career, Jessica has shown a passion and commitment to diversity and inclusion, and an appreciation for the role technology plays in supporting those values.

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