

FEATURE

Beyond good intentions

Navigating the ethical dilemmas facing the technology industry

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THE DELOITTE CENTER FOR TECHNOLOGY, MEDIA & TELECOMMUNICATIONS

A more holistic approach to the major ethical dilemmas facing today's technology industry can help companies differentiate, preserve their reputations, and better prepare for and protect the future.

THERE'S NO DOUBT that the technology industry has achieved tremendous success. Its ubiquitous products and services power our digital society. Prolonged ubiquity, scale, and influence, however, have forced the industry to face many unforeseen, difficult ethical dilemmas. These dilemmas weren't necessarily created by the tech industry, but many in the industry find themselves at a "convergence point" where they can no longer leave these issues at the margins.

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Because of "big tech's" perceived power, lagging regulation, and an absence of common industry practices, many consumers, investors, employees, and governments are demanding greater overall accountability from the industry. The technology industry is also becoming more introspective, examining its own ethical principles, and exploring how to better manage its size and authority. No matter who first said it, it's widely believed that the more power you have, the more responsibility you

have to use it wisely. The tech industry is now being asked to do more across a growing number of areas. Without a holistic approach to these issues, tech companies will likely struggle to meet today's biggest concerns and fail to prepare for tomorrow's.

Five dilemmas for the tech industry to navigate

While these aren't the only challenges, here are five areas of concern the technology industry is currently facing. Steps are being taken, but is it enough?

Data usage: According to the UN, 128 of 194 countries currently have enacted some form of data protection and privacy legislation.¹ Even more regulation and increased enforcement are being considered.² This attention is due to multiple industry problems including abuse of consumer data and massive data breaches. Until clear and universal standards emerge, the industry continues to work toward addressing this dilemma. This includes making data privacy a core tenet and competitive differentiator, like Apple, which recently released an app tracking transparency feature.³ We're also seeing greater market demand, evident by the significant growth of the privacy tech industry.⁴ Will companies simply do the minimum amount required to comply with data-related regulations, or will they go above and beyond to collect, use, and protect data in a more equitable way for everyone?

Environmental sustainability: There's a push for technology companies to go beyond what's required by law on environmental sustainability. There are those who challenge the industry for its energy use, supply chains that could be more efficient, manufacturing waste, and water use in semiconductor fabrication. The good news is technology companies have the market power to create significant change. Tech companies are some of the largest buyers of renewable energy in the world and are working to run their massive data centers off that energy.⁵ Some focus on zero waste initiatives, improving recycling and promoting circular economy principles. Cisco's Takeback and Reuse program and Microsoft's 2030 zero waste goal are examples.⁶ Others work toward net-zero carbon through The Climate Pledge, spearheaded by Amazon, or individual efforts, such as Apple's pledge to become carbon-neutral across its businesses by 2030.⁷

Trustworthy AI: The rapid deployment of AI into societal decision-making—from health care recommendations to hiring decisions and autonomous driving—has catalyzed an ongoing ethics conversation. It's increasingly important that AI-powered systems operate under principles that benefit society and avoid issues with bias, fairness, transparency, and explainability. To address these issues, we've seen tech industry players establish advisory panels, guiding principles, and the sponsoring of academic programs.⁸ We've also seen action beyond statements of principle. Some larger tech players decided in 2020 to stop providing AI-powered facial recognition systems to police departments until clear guidelines, or legislation, is in place.⁹ This is a solid foundation to build on, but faith in the industry is low.¹⁰ As a consequence, we see a growing potential for government action and regulation, such as the EU's proposed Artificial Intelligence Act and recent statements from the Federal Trade Commission in the United States.¹¹

Threats to truth: There are hordes of people and groups using disinformation, misinformation, deepfakes, and the weaponizing of data to attack, manipulate, and influence for personal gain, or to sow chaos. To help address this intractable issue, technology companies have asked governments to pass regulations clearly outlining responsibilities and standards.¹² They're also cooperating more with law enforcement and intelligence agencies, publishing public reports of their findings, and increasing overall vigilance and action.¹³ In addition, many companies have signed up for the EU's voluntary Code of Practice on Disinformation, which is currently being strengthened.¹⁴ Is this all happening fast and comprehensively enough and with enough forethought?

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Physical and mental health: The technology industry can not only impact the physical and mental well-being of customers who use and overuse its products and services, but also by its direct involvement in health care, which has been accelerated by the pandemic.¹⁵ We're still working to better understand the impacts of technology on health, and a lot of research and debate are ongoing.¹⁶ Although measuring the impact of both is difficult and complex, the technology industry has shown it can improve health-related areas with tech such as wearables, and through better access to providers through telehealth, sensors, devices, and apps for chronic disease monitoring, and improving diagnoses through advanced analytics and AI.

Addressing these dilemmas is critically important, but what concerns technology industry leaders the most at the moment? In a Deloitte survey of technology industry professionals, the vast majority found all the dilemmas critical, but data privacy was seen as the most (figure 1).¹⁷ This focus could be because of the current regulatory landscape. The issue is more real for leaders and can have an impact on their day-to-day operations. The other dilemmas may be seen as impacting their organization further in the future or, are simply more nebulous.

These five dilemmas raise some substantial ethical questions that technology companies should ask themselves: What is our responsibility to the planet, our users' well-being, the public good, the

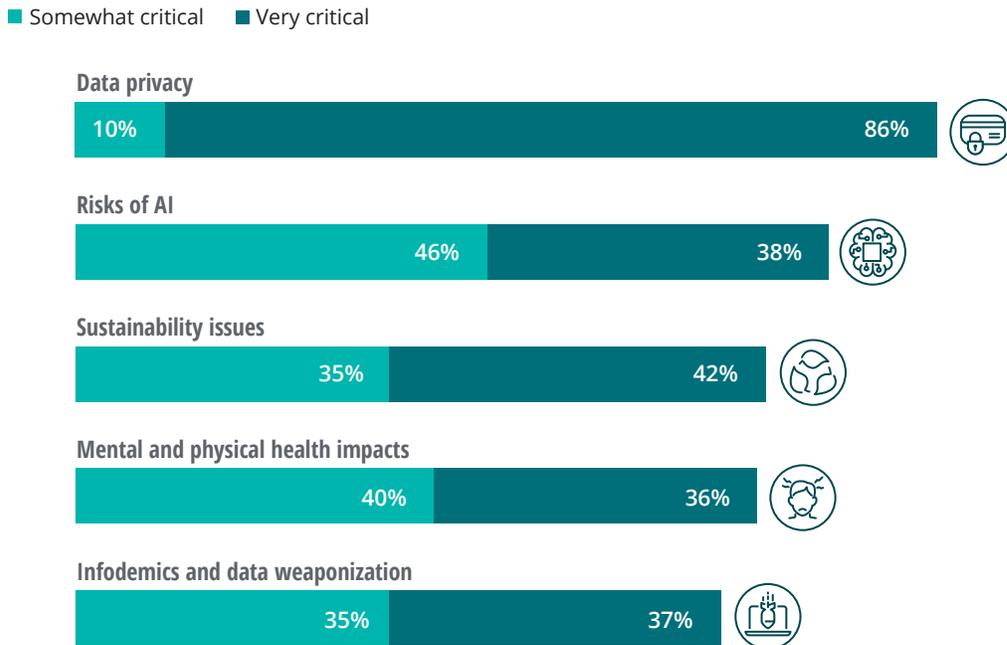
truth, and social stability? How can we dramatically reduce bias in our company's culture and products? What applications of AI won't we pursue? How do we interpret privacy as a fundamental human right?¹⁸

Technology companies are beginning to think about and act on the ethical questions we've posed beyond traditional risk, compliance, CSR (corporate social responsibility), and ESG (environmental, social, and governance) efforts. Examples of this wider commitment include Salesforce's Office of Ethical and Humane Use, Microsoft embedding ethical and societal considerations into their engineering process, and Facebook's Responsible Innovation team.¹⁹

FIGURE 1

Data privacy is top of mind among the dilemmas

Percent saying the issue is somewhat or very critical for the technology industry to address over the next few years



Note: N=78 US technology industry leaders.

Source: Deloitte survey.

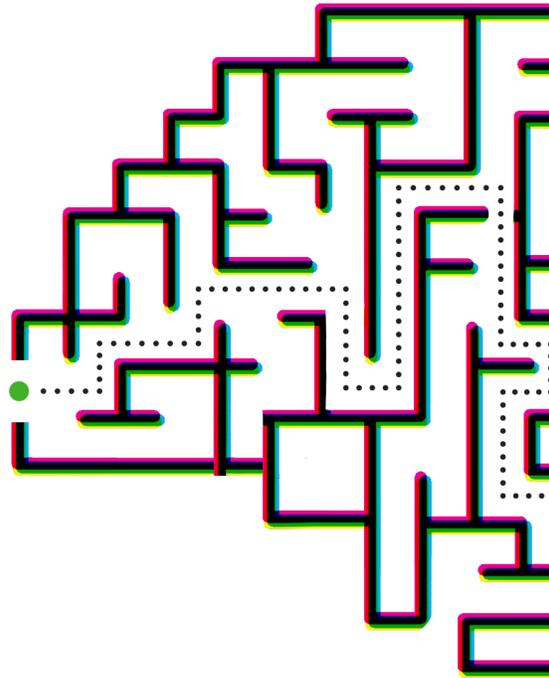
While many companies are still experimenting, it's unclear how effective these efforts will be to address the dilemmas in the near-term and what the industry's willingness is to establish new guidelines and norms. We should make sure that this burgeoning attention isn't just "of the moment" and that it's sustained to get ahead of new potential issues in the coming years. If tech companies don't maintain and accelerate their efforts, we may face an increasing number of unintended consequences that could impact our planet and everyone on it.

Advancing toward a more holistic approach

These issues are inexorably interconnected, and it may not be enough to take siloed approaches to each anymore. A shift toward a more holistic approach is likely necessary.

The benefits of a holistic approach could be great. It could help avoid bad PR, reduce backlash and action from customers and regulators, decrease environmental damage, avoid legal challenges, and stop aggravating societal fragilities. However, it's not just about avoiding negative implications, but also creating positive ones.

If done right, taking a holistic approach to ethical dilemmas could create market differentiation and be a source of disruption. The approach could be used to better attract and retain talent from younger generations. According to the Deloitte Global 2021 Millennial and Gen Z Survey, almost 70% of both millennials and Generation Z think that businesses in general focus more on their own agenda than considering the wider society.²⁰ In addition, only 47% of millennials think that business has a positive impact on society. Finally, being able to showcase your ethical activities and provide examples to your customers could improve your ability to retain them.



CHALLENGES TO THE NEW APPROACH

There's no silver bullet for companies as they start their journey to develop a holistic approach. These issues can be collectively overwhelming, and there's no clear path forward. It will likely require commitment and challenges to various orthodoxies across an organization's culture, financial strategies, and operational approaches.

The first challenge to overcome may simply be admitting that your company has an ethics "problem." In a Deloitte survey of technology professionals, 82% strongly agreed that their company was an ethical company.²¹ However, only 24% strongly agreed that the technology industry takes an ethical approach to the products and services that it creates. Taking a holistic approach to ethical dilemmas may be seen as someone else's problem at the moment.

Additional challenges can include:

- There may need to be changes to long-established mindsets that have been historically beneficial.
- There will likely have to be more discussion and transparency about the trade-offs between efficiency and performance with a more ethical approach.
- Finding qualified ethics professionals who understand human behavior, bias, and unintended consequences and can help guide the business.
- There could be challenges to existing business models and maintaining both revenue streams and strong ethical practices.
- A comprehensive ethical approach could be more expensive. It may take longer to develop

software and products with a full understanding of what the real implications are.

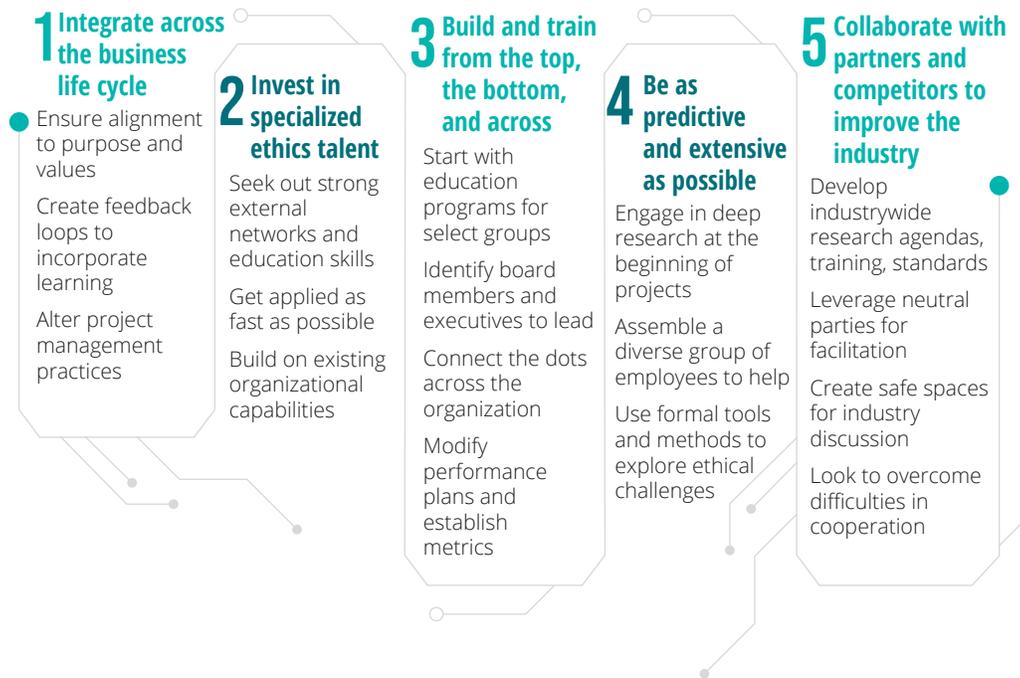
- Changes to engineering processes may be needed.
- New ways to evaluate, recognize, and reward leaders, the workforce, and project teams may need to be developed.

Five key moves to help build clarity and capacity

To take a holistic approach across all ethical dilemmas to better uncover and address inevitable problems, technology companies can focus on five key moves to build more clarity around their ethical responsibility and a stronger capacity to operationalize their ethical principles (figure 2):

FIGURE 2

Five moves for a more holistic approach to ethics in the technology industry



Source: Deloitte analysis.

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1. Integrate across the business life cycle.

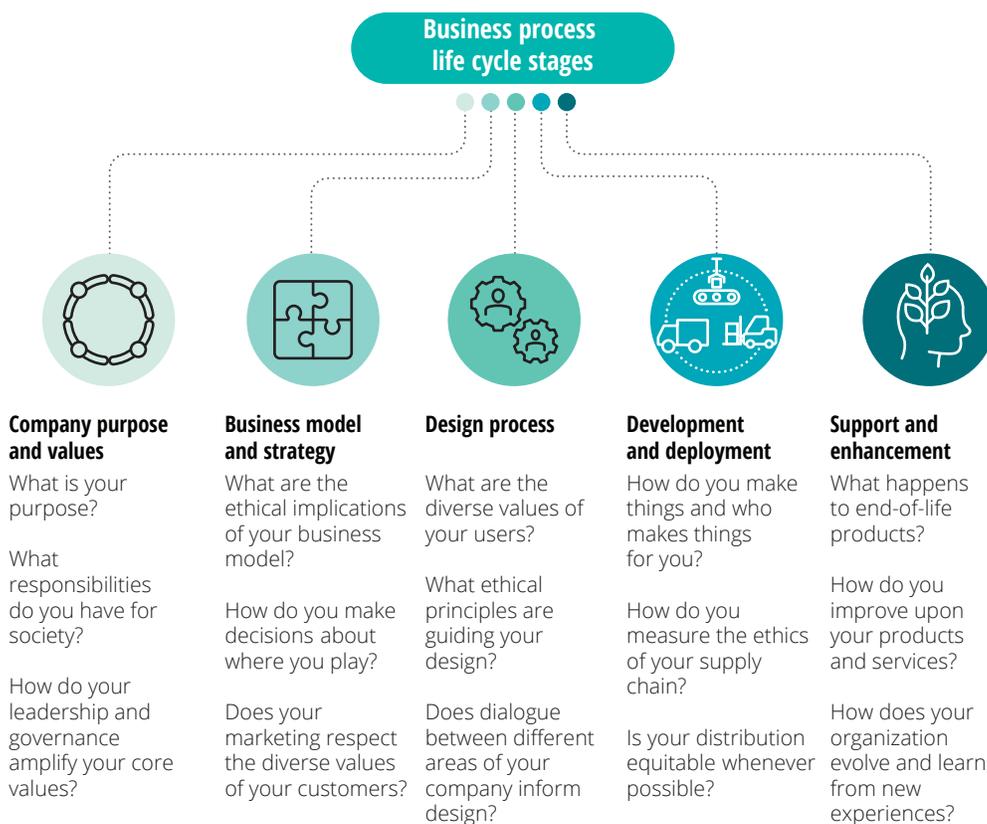
Across each phase of the business life cycle, consider the ethical implications of actions (figure 3).

- Ensure alignment to your organization’s purpose and values throughout the process. Addressing ethical dilemmas is not just a quality assurance check at the end.
- Focus on incorporating learning through the creation of feedback loops throughout the business life cycle stages. Make sure to measure and report progress during each stage.
- Embed “ethical introspection” in project management practices.

FIGURE 3

Ethical introspection across the business life cycle

At each stage, and across all stages, companies should consider key ethical concerns



Source: Deloitte analysis.

2. **Invest in specialized ethics talent.** Having one or more “heavy duty,” academically trained ethicists, fluent in the industry dilemmas, available to the company can help move the organization past compliance and traditional business ethics.
 - Look for unique individuals who can provide a different style of thinking, offer historical context for ethical dilemmas, have a network of external experts on tap, and can design and facilitate education programs.
 - To build credibility, it’s important that these experts aren’t too theoretical and can apply their skills and recommendations right away.
 - Consider building on existing ESG, CSR, and sustainability teams. They’re sure to have interest and applicable expertise to add.
3. **Build and train from the top, the bottom, and across.** Everyone should be responsible for ethical decision-making, but responsibility isn’t enough. Ethical dilemmas can only be adequately addressed if there’s direction and support from the board and C-suite leaders. It’s also important to provide resources at the working level through education programs and cross-functional collaboration opportunities.
 - Start with comprehensive ethics education, not for everyone, but for key board members, executives, technical staff, and other leaders.
 - Identify board members and executives who can lead the process and provide permission to have difficult conversations around ethical issues pertinent to the business. Consider establishing an executive council or independent ethics board.²²
- Bring together the right people in the right places—design, technical, and engineering, and business teams—to connect the dots around ethical risks.
- Include ethics-based responsibilities in performance plans and define key metrics and KPIs to drive accountability.
4. **Be as predictive and extensive as possible.** The technology industry should tackle ethical dilemmas as early as possible in every process. Companies can’t wait until after harm has been done. Additionally, take a more comprehensive approach to identifying stakeholders.
 - Engage in deep research at the beginning of a project to help envision unintended consequences across environmental, health, economic, societal, legal, and other domains. Don’t simply experiment on users to uncover issues with new products or services.
 - Assemble a diverse group of employees to act as a focus group that can help you anticipate the consequences of your company’s decisions and initiatives to a broader range of stakeholders.
 - Consider expanding your circle of stakeholders to historically marginalized populations, employees’ families, and others that may not use your products or services but could be affected by them.
 - Use tools and methods like simulations, role-playing exercises, and scenarios to look at things from different vantage points and identify what kinds of challenges your strategy, products, services, and operations may create.

5. **Collaborate with partners and competitors to improve the entire industry.** Although competitive pressures may make it difficult, it's important for ethics experts from across the tech industry to get together to act in the best interests of the industry and raise everyone's capabilities.
- Move past simply raising awareness to developing things like industrywide research agendas, training, and standards.
 - Consider using outside professional organizations and other neutral parties to facilitate hard conversations. Work to involve and learn from leaders in other industries.
 - Create forums that can be safe spaces to discuss best practices, what is working and not working, research agendas and methodologies, and investment levels.
 - Expect difficulties in cooperation. There could be resistance to the mere idea of collaborating on ethical issues and disagreements around general principles.

Preventing future cascades of unanticipated consequences

Technology companies shouldn't just be good at business anymore and focused solely on growth. They should consider the ethical implications of their actions in a structured way to better navigate the gray areas, helping prevent future cascades of unanticipated consequences. In the end, it's not just about creating ethical and trustworthy technology but enabling the entire industry to more easily make ethical and trustworthy decisions. Taking a holistic approach to the ethical dilemmas impacting the industry and encouraging foresight and a systems view can help ensure a more sustainable industry and build long-term trust with customers, partners, employees, governments, and the broader public. This is not just pertinent to the dilemmas of today, but the new ones that we will certainly face in the future.

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Acknowledgments

The authors would like to sincerely thank **Beena Ammanath, Jana Arbanas, Catherine Bannister, Ivana Bartoletti, Ariane Bucaille, Jennifer Buchanan, Gillian Crossan, Susan Goldsmith, Eamonn Kelly, Kwasi Mitchell, Heather Rangel, and Shreyas Waikar** for their contributions shaping the direction of this article.

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