



## Trendlines: Digital ethics

'Do no harm' isn't good enough – a practical guide to building ethics into your organization

(12-minute read)

# Executive summary

If you believe that technology can and should ultimately have a positive influence on the world, the best way to combat the growing tech backlash is by adopting digital ethics principles and behaviors in your organization.

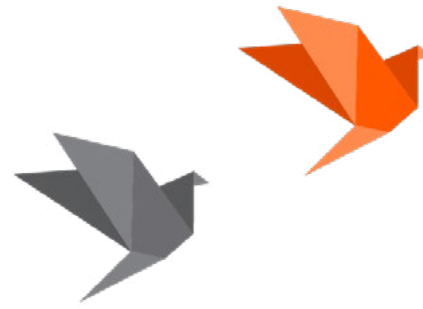
For the past three years, Avanade has actively engaged in digital ethics, as ethical concerns are now coming up daily in debates about how we all make and deploy cutting-edge technology. These debates cover a wide array of issues, like the increasing use of surveillance and personal data, preventing misinformation campaigns and cyberbullying, and reducing environmental impact and waste.

But while we're debating, these problems are only getting more complicated and more urgent. What's more, the specter of unethical practices is starting to shake the confidence of customers, employees and government officials that digital innovation is a good thing. If you believe that technology can and should ultimately have a positive influence on the

world, the best way to combat the growing tech backlash is by adopting digital ethics principles and behaviors in your organization.

Our previous [Trendlines](#) report defined digital ethics and highlighted the benefits of incorporating ethics into the design and adoption of emerging technologies. This new report explains the urgency of today's most critical digital ethics issues, gives you a starting point to align your digital ethics efforts with your company's goals and values, and shows how you can implement good digital ethics practices within your existing processes. It's the latest in the [Avanade Trendlines](#) series on emerging trends that impact the design, innovation and technology choices of large organizations.

# Bridging tech and trust



Imagine that you have fully synched your life with a single digital agent. It tracks you through the house in the morning as you get ready and provides advice on what to wear and what to eat; you ask it to find an available car and drive you to a coworking space across town; it connects you seamlessly with your team and key information for an important project at work; and during your lunch break you approve payment for a much-needed vacation the digital agent planned for you and your family.

Now imagine that employees at the home security company you use watched you and your family get ready and leave your house that morning; during your drive you heard ads for medication to alleviate a very personal ailment you hadn't told anyone about; you've been taken off the critical team project at work by an automated management engine; and without explanation your bank blocked payment for your upcoming vacation.

Are you wondering whether the ad you heard is based on a racial or age profile, or maybe some specific personal information collected from your home? Are you wondering whether the bank canceled your

vacation payment because things aren't looking good at work? And is the bad news at work also related to your medical issue? Where would you even begin trying to resolve these questions?

The tech industry is racing forward with astounding innovation without considering the consequences of its speed. We rely on software to perform tasks we would only ask our most trusted friends and experts to tackle, but does it deserve our trust? Despite [countless examples where such blind devotion has failed us](#), we're already showing signs of repeating past mistakes and not thinking enough about the future we want to create. Consider the following:

- **Security and privacy have become business imperatives; it's now time for digital ethics.** After a nearly constant stream of security and privacy breaches over the past two decades, the tech industry has finally adopted the mantra of "[built-in, not bolt-on](#)" security and "[privacy-by-design](#)" for new technologies. While we're still struggling to prevent attacks against vulnerable systems, the fallout from security and privacy breaches will pale in comparison to damage from ethical lapses in the technologies

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we're currently deploying. For example, just consider the crushing impact on people denied credit based on biased algorithms compared to the inconvenience of having to replace credit cards after a data breach.

- **"Do no harm" is a devastatingly shortsighted goal.** [Many in the tech industry](#) have adopted this false beacon, believing they can manufacture neutral technologies, turn them over to trustworthy customers and keep their conscience clean. But we continue to see people causing both [intentional](#) and [unintentional](#) – but foreseeable – harm with so-called "neutral" technologies (remember also that [human error](#) is responsible for most security and privacy breaches). So, knowing that technical capabilities and use cases are constantly evolving, it's not enough to do no harm; developers and implementers must put structures in place to identify and shut down any potential misuse of their products as well.
- **Digital ethics discussions have been too narrow.** A promising spotlight on digital ethics has emerged to

uncover issues in need of attention, but so far it has fallen on small sections of the space we need to explore. Notably, [ethical AI](#) and [privacy](#) are typical topics of digital ethics discussion. But if we're going to apply ethical filters fairly for all stakeholders affected by technology, we'll have to look more broadly at implications for **people** (such as privacy, accessibility, inclusivity, mental/physical health, financial well-being, etc.), **society** (such as politics, education, workforce, economy, law enforcement, military, etc.) and the **environment** (such as energy, materials, pollution, waste, etc.).

So, knowing how urgent the issues are, the question remains: How do we address these ethical challenges without stifling our company's production or performance?

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# Digital ethics requires more than following laws and managing risk

So far, companies' efforts to practice good digital behavior have [aligned almost entirely to rules and regulations](#). But with regulatory oversight so far behind, it's much too easy for companies to follow the law and still act unethically, intentionally or unintentionally. More mature organizations might even go a step further with efforts to [reduce operational, brand and strategic risks](#), not just legal ones. But these are merely strategies for protecting shareholder value; they don't foster a culture of good behavior. If we want to *build* value for shareholders and other stakeholders, we have to follow ethical principles; because more than ever, people want to [work for](#), [invest in](#), [buy from](#) and [live near](#) companies that behave ethically.

For example, the CIO of a mid-sized financial services company said that he formed a digital ethics committee because customers started asking about the firm's security controls, then about privacy practices, then about ethical considerations like inclusion and diversity. At first the committee's key objective was protecting the firm's good reputation, and along the way they saw their efforts as a competitive advantage when talking with customers and prospects.



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# We have to change, which means talking more about ethics

In our professional and personal lives, we associate with each other by describing what we care about, what we've accomplished and what we hope for. A software engineer might talk about what languages and libraries he prefers; a CTO might describe her plans to implement a new blockchain application. But how often do we include ethical accomplishments on our resume, as an objective in our design workshops, as a question in our job candidate interviews? We should aim to adopt frameworks, procedures and metrics that help us consider ethics in all of our technology decisions. But first, we have to talk about why such efforts are so important:

- **Start by defining your values in clear terms.** Your organization should already have a written set of values; your job is to [translate these into digital ethics guiding principles](#). Specifically, a company that values transparency will likely prioritize

explainable AI; a corporate value of inclusion would suggest investments in digital accessibility; and claims of environmental responsibility might translate into low-energy and low-waste technologies. For example, the e-commerce director at a European beverage company said it would be very easy for his organization to profile individual customers, but because of a corporate-wide commitment to social responsibility, they only use anonymized data to track regional trends and preferences, avoiding the possibility of a privacy violation.

- **Explain how these values should manifest in the culture.** To accomplish the objectives you've defined, you need participation from across the organization. Tell designers, developers, implementers and operators the behavior you expect from them, and give them the necessary

tools and training to make it happen. Review goals during Scrum sessions, track performance after implementation, and provide a channel for every stakeholder involved – including users and customers – to raise questions and concerns along the way.

- **Require transparency to build trust.** There will inevitably be difficult decisions and trade-offs throughout the product or project lifecycle. While you'll never reach perfection, your best option is to explain the rationale for your choices, then let your employees, customers, investors and other stakeholders decide whether your approach aligns with the values they expect from you. As they vote with their time and money, you'll know when you're making good choices.



What to do now:

# Start embedding digital ethics into your org and processes today

We already have great models to follow. When we build technology, we have [quality](#) reviews and [security](#) testing. We assess risk in the design phase and we measure compliance before release. Around all of these efforts, we have governance structures, metrics and audits. We make adjustments to make sure our projects achieve intended goals. Now, we just need to extend our goals to include ethics. This will look different depending on what standards and processes your organization is already following, but each function involved with designing, building, deploying and operating technology will have a role to play.

For example, the global senior vice president of engineering at a leading European apparel company said his organization has more than 100 internal technology products with their own engineering team, technical lead and Scrum Master. They do an

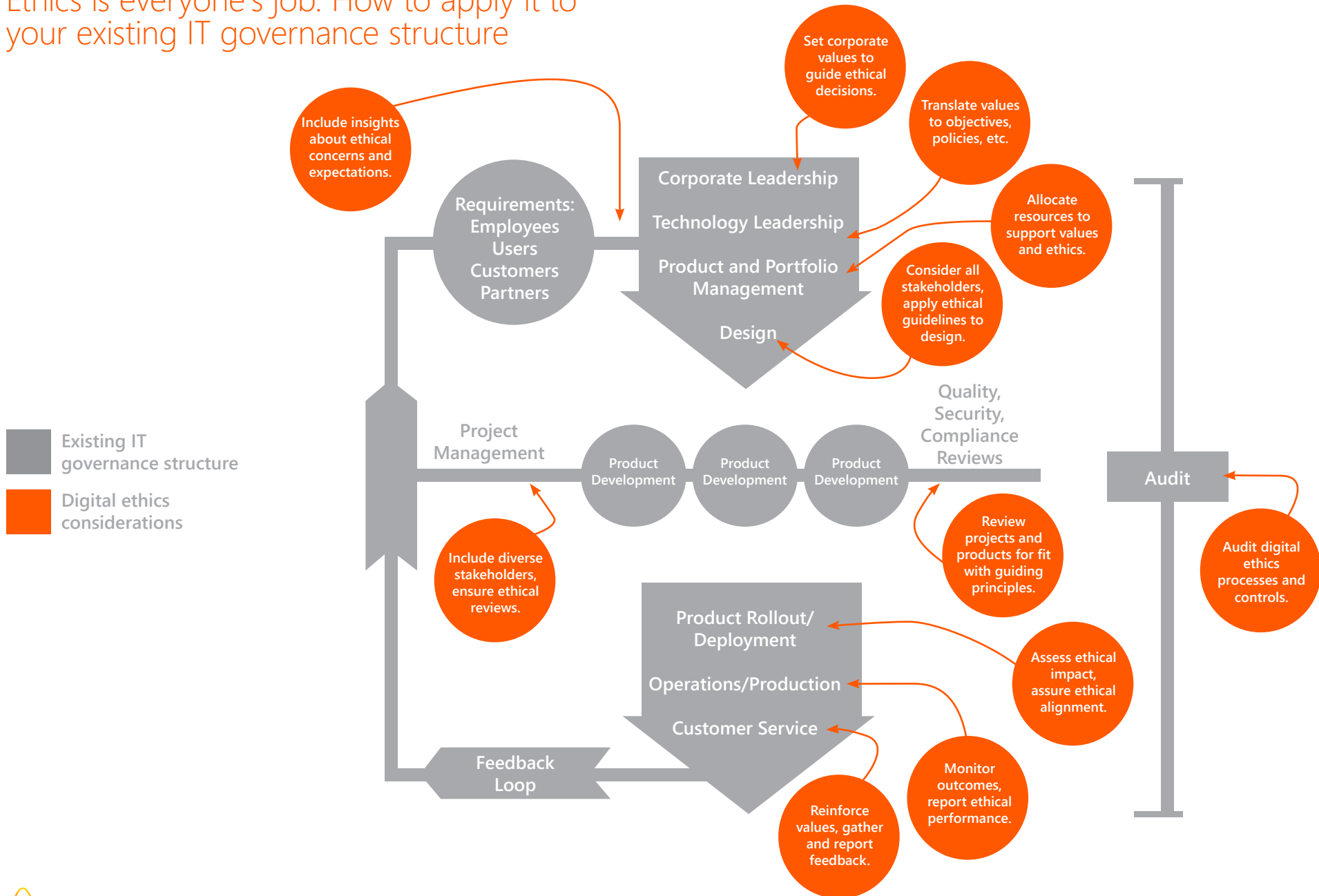
initial assessment on products to determine whether to get the ethics team involved as well, as they likely would with projects involving customer recommendations and personalized experiences. In these cases, they look for ways to be as transparent as possible about what data they're using and how, giving customers an easy way to opt out of the process if they want to. The company counts these efforts as part of its "customer obsession."

The diagram that follows shows how an organization might add ethical considerations to its existing IT governance structure.

Each function involved with designing, building, deploying and operating technology has a role to play in digital ethics.



# Ethics is everyone's job: How to apply it to your existing IT governance structure



Be as inclusive as possible when understanding requirements and designing solutions, aim for positive outcomes for all stakeholders and require transparency for any difficult decisions.





What to do next:

# Create bias for positive outcomes

The way your technology interacts with the world will depend on [the data you use](#), [the language\(s\) with which your technology communicates](#) and the [objectives you teach it to achieve](#). All of these factors contain biases that can help or hinder your company's performance and ethical standing. Many of the decisions you'll have to make will be difficult, and as over 2,500 years of philosophical study attests, there won't often be a clear-cut course of action. Do you favor equity or equality? Empowering individuals or protecting communities? Knowing that there's no clear guide to "right" or "wrong" digital ethics decisions, here's how to assure the best results:

- **Find ways to make biases lead to positive outcomes.** Systems that single out a certain population are not necessarily bad; after all, target marketing is all about picking likely buyers from the general population. The challenge is when these biases lead to unfair treatment. For example, certain populations who have historically been

ignored or unfairly treated by the credit industry may appear in certain algorithms to be less worthy of credit. But using similar analysis in a more positive light might identify this group as more deserving of credit monitoring, financial literacy or other beneficial services. Choose the outcome that aligns best with your company's values.

- **Root out long-term biases hardwired into your development lifecycle.** In addition to prejudices and discrimination, some of the most insidious biases may be those that cause indirect but ultimately harmful impacts over the long term. For example, a product team might be told to prioritize rapid user adoption, aesthetic quality and user privacy. Such priorities may seem to have positive intentions and no significant ethical implications. However, over the long term they may directly conflict with product quality, environmental responsibility and national security. There will likely be a lot of nuance and compromise in choosing

how to proceed, and looking beyond quarterly goals to your organization's ultimate impact on the world will help guide a more fruitful conversation.

- **Prioritize inclusion, transparency and oversight.** The best you can do with ethically challenging issues is to be as inclusive as possible when understanding requirements and designing solutions; the more diverse your team, the likelier you are to identify potential issues and come up with the most favorable solution. As much as possible, aim for positive outcomes for all stakeholders and require transparency for any difficult or potentially contentious decisions. Finally, build these principles into your existing governance structure – your executive committee meetings, IT governance board agenda, IT policies, performance objectives, etc. – so that they receive appropriate oversight and become part of your organization's culture.

# Stay informed

Digital ethics should be standard practice for any organization designing, developing or operating digital technologies. [Contact us](#) to help you take action with your ethics journey, including advice on ethics frameworks and governance models. For more information about digital ethics and other trends that will impact you and your business over the next 12 to 18 months, visit us at [Avanade Trendlines](#).



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