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On the board's agenda | US

Holistic governance through technology transformation

This edition of On the board's agenda features a conversation with Joanna Burkey, chief information security officer at HP Inc. and board member at Overstock.com/Bed Bath & Beyond, on how to govern holistically through transformative technological change. The dialogue was led by Irfan Saif, Deloitte's US chief information officer and member of the Deloitte US Board of Directors and Deloitte Global Board of Directors.

Why it matters

In the age of artificial intelligence (AI) and similar innovations, the board's governance of technology has garnered increasing levels of attention. But the rapid pace of advancement has brought a shifting set of new (and often unfamiliar) opportunities and risks. Perhaps due to such complexities, there is renewed interest in identifying the technology skills directors may need to provide oversight in this area. Like any other area of board governance, what works varies widely across each company and industry. Nevertheless, when dealing with potentially transformative technologies, there are a few guideposts that may help boards govern more holistically.



> Reframing the issue
Consider thinking about technology governance as a means to a greater end, like building digital trust.



> Balancing on a roller coaster
The pace of technological innovation means more frequent reassessments of risks and opportunities.



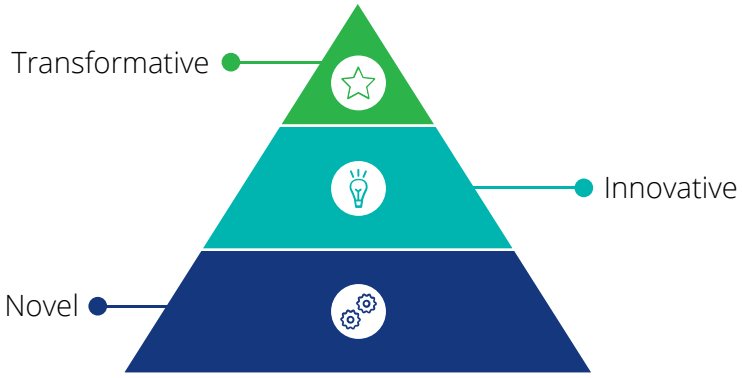
> Tech standard of care
After inventorying director technology skills, consider opportunities for additional professional development.



Defining terms and setting context

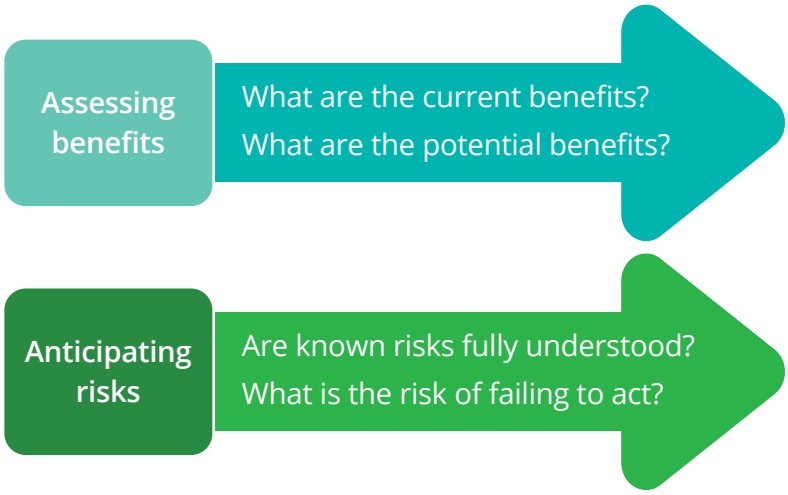
While conversations on technology often use words like *novel*, *innovative*, and *transformative*, the terms are not necessarily interchangeable. Transformative technologies can upend businesses, for better and for worse, and they can alter the course of global commerce in unforeseen ways. But how is it possible to know that a novel and innovative technology **is** or **could be** transformative? Through the early 2000s, both media outlets and scholars debated whether the internet was a passing fad or the herald of a new globalized economy.[1] Similarly, in the past few years, public commentary has both heralded and ridiculed the transformative potential of technologies like non-fungible tokens (NFTs),[2] machine-learning algorithms,[3] and artificial intelligence.[4]

It may be novel and/or innovative, but is it transformative?



The sun doesn't set on the technology horizon, and in any given year, business dialogues seem to converge on emerging innovations that could be transformative.[5] The form varies from the manufacturing assembly line's role in the Industrial Revolution, to the rise of the internet and creation of a truly interconnected economy, and now perhaps to artificial intelligence, which is likely to make remarkable efficiency improvements to business processes. For boards, each breakthrough brings its own mix of risk and opportunity.[6] The following questions may serve as conversation starters when thinking about the potential of any given technology.

Balancing known and unknown benefits and risks



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Holistic governance through (potentially) transformative technology

The board's role around technology—whether it be novel, innovative, or (potentially) transformative—centers on governance and strategy.[7] How the board engages in this area may also be partially shaped by the array of technology skills brought by individual directors. It may be helpful to get the views of subject-matter specialists who deal with this area of governance on a day-to-day basis. The following summarizes a dialogue on these topics between Irfan Saif and Joanna Burkey.

Irfan Saif: In the past few years, we've seen a rapid and quickening pace of advancement across multiple areas of technology, including many with transformative potential. Does the stage of development or level of potential for any given innovation change how directors should think about technology governance?

Joanna Burkey: When technology is still in its early development or rapid growth phases, creating a cohesive strategy may be difficult. From a governance perspective, it's an opportunity to pinpoint where the company is on the technology opportunity/risk spectrum. Where the board and company land on that spectrum will determine the outlines of any technology strategy. This is something that is subject to change, perhaps even by use case, so the arrival of a potentially transformative technology is a good time to reassess. After all, the innovation of the moment could be potentially transformative for one company but not worth the investment for another. At its core, this is an exercise balancing between opportunities and risks, a familiar and well-trodden trade-off for boards.

> "For any type of technology innovation to have value, it will have some level of vulnerability."

In the technology realm, there is an aspect to this that we may sometimes overlook. Just like opportunities and risks, technology is often similarly characterized as a trade-off between ease of use and vulnerability. But in practice, it may be helpful to keep in mind that neither end of the ease-of-use/vulnerability spectrum is "real." Because if you sacrifice all user friendliness for security (or vice versa), then you have a technology that doesn't do anything. Take the cloud, which has transformed how we use and think about data. The only way the cloud is invulnerable is when you turn off the power to every server. For any type of technology innovation to have value, it will have some level of vulnerability.

Irfan Saif: In some cases, companies may not be able to judge where they are in the technology opportunity/risk spectrum. A "fear of missing out" (FOMO) phenomena can happen, especially with potentially transformative technology, because there may not be a full understanding of the opportunities and risks.[8] Alternatively, reverse FOMO may occur, where concerns about risk may result in unnecessarily avoiding a technology.[9] Is there a way to navigate around FOMO and reverse FOMO?

Joanna Burkey: The key is having a board-level technology strategy that can shape plans for emerging innovations. This may seem reductionist, but it isn't—creating strategies and plans in this area is rarely a simple task. But doing so can help avoid FOMO and reverse FOMO, as it avoids analysis paralysis and creates a bias toward intentional action. The first step is creating a strategy, which formalizes the alignment between the C-suite and board on the company's overall technology orientation. Does the company want to be on the leading edge of technology? Or is it a follower—and if so, the kind that follows quickly or slowly? Second, using the direction set by the strategy, craft a plan for how to respond to emerging and potentially transformative technologies.

Of course, both the strategy and the plan will need to be updated on a routine basis. The need to routinely update governance processes is a theme that I constantly reinforce, and it's a good general rule. But it is particularly critical here given the rapid development of the technology marketplace. How frequently should those updates be? Well, let's say you are on a board and just updated your governance strategy and plan for AI. The next week, you see another company get sued because their AI allegedly engaged in unauthorized use of intellectual property. Sounds like a great time to look over it again! Did you make sure it includes contingencies for possible IP infringements?

Irfan Saif: Technology is often atop the board's agenda. But perhaps in part to the developments we're talking about, these days it may be the priority for many companies. Is there any part of technology governance that you think is especially important to assess right now?

Joanna Burkey: Like other areas of board oversight, there is going to be a lot of variation in technology board governance. But in general, I think it might be helpful to consider the implications of the board's technology oversight structure. When oversight is within a committee, technology issues are filtered through the lens of that committee. That may seem like a truism; but it's important to consider the implications.

My career has revolved around technology, and I serve on the board of a technology-first company. Unsurprisingly, I think technology oversight should be within the jurisdiction of the full board. That is because I've seen how keeping it at the board level can cultivate ownership of the issue and foster more robust and multifaceted discussions. We all have our preferences, and there isn't one right answer for where technology oversight should sit. I just think it's important for the board to understand the implications of that decision.

Irfan Saif: Potentially transformative technologies sometimes can have complex and perhaps unfamiliar risks. One example of this is "bias," which can occur with artificial intelligence and similar learning technologies. What is the board's role—or does it have a role—in trying to identify these kinds of technology risks?

Joanna Burkey: I think this is one of those areas where the board has a large role. But in my opinion, it isn't thought about as much as it should be. To build on your example, I think it's clear that training AI and similar technologies on biased data has an adverse impact on the company. But that risk can also reverberate outward. Because if the biased output is later used in a health care or legal setting, there could be a serious human and/or financial toll. That also holds true with other phenomena like AI hallucination, where the system gives a response that is completely fabricated. It can be hard to understand these kinds of technology issues.

Yet, you don't have to be an expert in the complexities of every emerging technology to identify these risks. By asking detailed questions, you can help uncover this level of nuance even without a technical background. Boards are often reminded about the importance of asking questions, especially queries focusing on the company's long-term goals. Because if the board isn't asking it, no one else is going to. Management will be inclined to think about these issues with a shorter time frame in mind. And there is nothing inherently wrong with that, as the board is supposed to be looking toward the horizon.

> "With AI and similar technologies, how far ahead you can see—what we might call your governance field of view—is more limited."

So ultimately, I think the board has a role here. Even in these rather arcane issues that may arise with potentially transformative technologies. Importantly, there is some nuance in board strategy when we're dealing with breakthrough innovations. That difference stems from the board's natural predilection to have a longer-term perspective. With AI and similar technologies, how far ahead you can see—what we might call your governance field of view—is more limited. You can only extrapolate so far into the future because the development process is happening with such speed. You must be ready to adjust and recalibrate as the technology evolves.

Irfan Saif: When directors are asked what skill sets are needed on the boards where they serve, technology and related areas often rise to the top. How should boards think about measuring their technology skills and, if needed, closing any gaps they may have?

Joanna Burkey: Determining what skills are needed—and whether you have the level of expertise needed on the current board—is something that ultimately falls to the chair (or the chair with the CEO). Because they are responsible for setting the tone of the board's technology governance and strategy. In determining what level of technology competency **is** needed, it is equally important they highlight what **isn't** needed. There could be areas where, due to something like a specialized use case, the board can rely on a director or two for the requisite skill sets. And remember, technology skill needs change over time. So whatever is set as the board's technology "standard of care" has to be reassessed periodically.

Much of the dialogue on board skills revolves around what types of technology skills are needed. This is clearly vital, but I think boards tend to overlook the importance *how* we upskill. For technology, especially in this area of potentially transformative innovations, I believe there is opportunity for development modalities where the board trains as one cohesive group. Of course, doing that is not easy—mostly because it requires directors to have a certain level of interpersonal vulnerability and trust. I believe there is opportunity for development modalities where the board trains as one cohesive group. Depending on boardroom culture, it may be no small task to participate in group learning because it means being open about perceived knowledge and skills gaps. Similarly, I also believe in the potential of alternative formats like board "apprenticeships," where directors cross-train each other based on differentiated skill sets.

Irfan Saif: What might you say to directors who might be skeptical about investing so much time into technology governance, strategy, and board training? The board has numerous and often competing priorities. What is your case for putting such a high amount of emphasis on this area?

Joanna Burkey: There was a time when I think everyone saw technology as operating in its own vertical silo, right along all the other parts of the company. But we're in a world now where technology's reach is ubiquitous. Yet that fact is rarely reflected in board governance, strategy, and director skill sets.

> "In our globalized and digitalized world, trust is the lifeblood of the modern economy. Technology is the platform and primary facilitator of digital trust."

It's time to think about technology in the same way we think about finance. Directors are expected to have, at a minimum, a basic working knowledge of financial concepts. There is wide agreement on that as prudent and reasonable because finance is the undercurrent of everything that companies do. I would argue the same goes for technology literacy and the need to prioritize technology governance. In our globalized and digitalized world, trust is the lifeblood of the modern economy. Technology is the platform and primary facilitator of digital trust. The ubiquity of technology, in terms of both its omnipresence and its role as a trust broker, demands our attention.

The foundation of every business interaction, if you boiled it down to one thing, is this: We are working to create, strengthen, and maintain trust with our clients and customers. And you simply cannot do that effectively if you ignore or minimize the importance of digital mediums. I think sometimes we try to separate technology as an important but distinct part of board governance and strategy. But in the present day, technology is infused into everything we do. Those who recognize the implications of that will be at a competitive advantage.

Endnotes

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