Center for Board Effectiveness

On the board's agenda | US
Rethinking how tech trends shape governance and oversight

The corporate board has many stakeholders—shareholders,[1] employees, vendors, customers, and communities.[2] Being responsive to such a wide array of constituencies is no easy task. Over time, technology has become an omnipresent concern across these groups. And thus, technology has likewise become a recurring topic of concern to boards.[3] The rise of the digital age has brought with it a mix of both opportunities and threats. On the one hand, the high-tech revolution has improved economies of scale and transformed business processes across every industry sector.[4] Conversely, the boon of technologically aided abundance has brought with it increasing economic inequities, regulatory scrutiny, and rising consumer distrust.[5]

For board members, making informed governance decisions in this area is more challenging than ever before.[6] This is partially because the complexity of enterprise technology is increasing at an exponential rate.[7] Deloitte's *2023 Tech Trends* report offers a navigational framework for boardroom conversations in this area.[8] Specifically, the report suggests a holistic governance approach where leverage of technology is based on the *business use case* rather than its *perceived novelty or innovativeness*.[9] To put it simply: The best way to drive a nail is determined by the size, dimensions, and materials of the nail—not the newness of the hammer. That remains true even if it's an "enterprise smart hammer," which connects to your smartphone and provides voice-guided assistance.

What does it mean to have 'effective' technology governance?

Deloitte's analysis shows how the ever-changing technology landscape is being driven by a mix of macro-level **innovational** and **foundational** forces.[10] Interaction, information, and computation are the **innovations** that have shaped nearly every paradigm change in technology. Notably, these are the basic structural forces behind every major technology innovation in the modern business era—from the first general-purpose computer to the metaverse.[11] Underlying this are three **foundational** forces: the business of technology, cyber and trust, and core modernization. Taken together, these six macro forces can serve as guideposts for how technology trends are shaping stakeholder expectations.

Guideposts for technology-informed governance strategies

Innovational macro forces

- **Interaction:** Be open to interfacing with stakeholders in ways that are increasingly digital, leveraging technology to promote inclusivity and build value.
- **Information:** Foster a culture of trust to pave the way for burgeoning technologies, but let the business use case guide adoption decisions.
- **Computation:** New innovations often provide new capabilities and efficiencies, but these should be viewed within the context of a holistic technology strategy.

Foundational macro forces

- **Business of technology:** Encourage technology talent strategies focused on not just *competing* for qualified people, but on *creating* them.
- **Cyber and trust:** Blockchain and similar technology systems may offer new ways to demonstrate stewardship of key stakeholder groups.
- **Core modernization:** Oversight activities should be proactive about extending the functionality of essential technology systems.

Importantly, these six forces are more than simple expressions of specific and discrete technologies or platforms. After all, the current vessels of innovation—which for 2023 includes artificial intelligence, the metaverse, and blockchain—are always changing. Being a technical expert in any specific platform or emerging trend may certainly be helpful, but for boards, a broader purview may be needed. These six innovational and foundational factors offer a way to better understand the needs of board stakeholders, especially in terms of how they interact with the digital world around them.[12] The below chart outlines how keeping these drivers of technology trends in mind can inform the governance process. ⊙

How drivers of technology innovation can add value

Board of directors stewardship

Effective governance	Accountability and oversight	Values standard-bearers	Providing strategic direction

Decision-making informed by awareness of macro factors

Interaction	Cyber and trust	Computation	Information	Business of technology

Builds value with key stakeholders

Shareholders	Employees	Customers	Vendors	Communities

What does a technology-informed governance strategy look like?

In recent decades, the amount of time boards devote to technology and the enterprise has been on the rise.[13] And according to research conducted by the Center for Board Effectiveness and Columbia University's Millstein Center for Global Markets and Corporate Ownership, that trend is only expected to accelerate.[14] As technology issues have become more complex and multi-faceted, there is an understandable tendency to compartmentalize them.[15] For example, technology is frequently discussed *only* in the context of risk management or information security.[16]

One timely example of boards balancing growing priorities is the SEC's upcoming rules on cybersecurity.[17] Dialogue on the proposed regulations has revolved around the technical requirements. Among the most pressing concerns is how corporations will show board cybersecurity expertise via SEC filings. These proposed requirements may increase compliance obligations,[18] so focusing on such details is unquestionably important. However, it may also be helpful to view the issue through the lens of technology trends. Because at its core, research suggests the SEC's regulation changes may reflect an institutional response to growing public trust gaps—another issue noted in Deloitte's 2023 *Tech Trends* report.[19]

It is perhaps cliché to note that every company is a technology company. But a growing body of evidence shows a link between proactive technology governance strategies and performance.[20] For that reason, technology trends are likely to remain at the top of the board's agenda for 2023, and beyond. Regardless of the challenge—be it an evolving regulatory framework for cybersecurity or the changing way stakeholders' interface with the digital world—the coming years may require a fundamental reframing of technology issues. There are clear benefits to such reframing, because doing so could foster a more agile and forward-looking governance culture.[21] In that vein, the below might act as a starting point for navigating boardroom technology discussions.

Reframing board connections between technology and enterprise

Existing framework	Proposed framework
Viewing technology as a specialized skillset held by only some board members.	Thinking of technology as a board-level strategy shaped by all members.
Technology oversight is reactive and related to specific and discrete tech "fads."	Technology oversight is a proactive way to adapt to macro-level innovation trends.
Governance of technology is tied to distinct and siloed enterprise functions.	Incorporating the macro-level drivers of technology trends in governance decisions.

What questions can guide boardroom discussions in this area?

The innovation du jour at the start of 2023 is, undoubtedly, already changing. But regardless of form, technologically informed governance can help both mitigate risk and enhance a company's competitive advantage. Questions to consider in this area include:

- Is the technology strategy consistent with company's values on inclusivity and equity? Are there checkpoints to ensure these values are kept in mind at every point in management's decision-making process?

- What is the strategy to proactively monitor the opportunities and threats that arise due to changes in the technology landscape?
  - What is the process to determine whether an innovation is worthy of pursuing and incorporating into the business process?
  - Is the proposed adoption of a new technology solving a priority issue in a manner congruent with the organization's strategic plan?
  - What are the risks and liabilities that could occur due to using (or not using) a particular technology?

- Beyond technology executives, what other internal stakeholder input is needed to ensure a holistic strategy in this area? When should external stakeholder input be gathered?

- How might the decision to use (or not use) an innovation improve (or degrade) trust relationships across the board's stakeholders?

Endnotes

1. Jeffrey Pfeffer, "Shareholders first? Not so fast…," *Harvard Business Review,* July–August 2009.

2. George Serafeim, "Investors as stewards of the commons?," *Journal of Applied Corporate Finance* 30, no. 2 (2018): pp. 8–17, https://doi.org/10.1111/jacf.12294.

3. Peter Weill et al., "It pays to have a digitally savvy board," *MIT Sloan Management Review* 60, no. 3 (Spring 2019): pp. 41–45; Stephen Andriole, "Boards of directors and technology governance: The surprising state of the practice," *Communications of the Association for Information Systems* 24, no. 1 (March 1, 2009), https://doi.org/10.17705/1CAIS.02422.

4. Jeffrey T. Macher and Christopher S. Boerner, "Experience and scale and scope economies: Trade-offs and performance in development," *Strategic Management Journal* 27, no. 9 (2006): pp. 845–65, https://doi.org/10.1002/smj.540.

5. Linda M. Sama, Abraham Stefanidis, and R. Mitch Casselman, "Rethinking corporate governance in the digital economy: The role of stewardship," *Business Horizons* 65, no. 5 (September 1, 2022): pp. 535–46, https://doi.org/10.1016/j.bushor.2021.08.001; Ira Kalish, Michael Wolf, and Jonathan Holdowsky, "The link between trust and economic prosperity: Repairing global erosion of trust has economic advantages," Deloitte Insights, May 20, 2021; Jessica Kosmowski and Paul Silverglate, "Beyond good intentions: Navigating the ethical dilemmas facing the technology industry," Deloitte, October 27, 2021, https://www2.deloitte.com/us/en/insights/industry/technology/ethical-dilemmas-in-technology.html.

6. Elizabeth L. H. Valentine and Glenn Stewart, "The emerging role of the board of directors in enterprise business technology governance," *International Journal of Disclosure and Governance* 10, no. 4 (November 1, 2013): pp. 346–62, https://doi.org/10.1057/jdg.2013.11; Swarnodeep Homroy and Aurelie Slechten, "Do board expertise and networked boards affect environmental performance?," *Journal of Business Ethics* 158, no. 1 (August 1, 2019): pp. 269–92, https://doi.org/10.1007/s10551-017-3769-y.

7. Aneel Chima and Ron Gutman, "What it takes to lead through an era of exponential change," *Harvard Business Review*, October 29, 2020; Carlos Agostinho et al., "Towards a sustainable interoperability in networked enterprise information systems: Trends of knowledge and model-driven technology," Computers in Industry, Special Issue on Future Perspectives On Next Generation Enterprise Information Systems, 79 (June 1, 2016): pp. 64–76, https://doi.org/10.1016/j.compind.2015.07.001.

8. Mike Bechtel and Bill Briggs, "Tech Trends 2023," Deloitte Insights, 2023.

9. Ryan Peterson, "Crafting information technology governance," *Information Systems Management* 21, no. 4 (September 2004): pp. 7–22, https://doi.org/10.1201/1078/44705.21.4.20040901/84183.2.

10. Mike Bechtel and Bill Briggs, "Tech Trends 2023," Deloitte Insights, 2023.

11. Leif van Neuss, "The drivers of structural change," *Journal of Economic Surveys* 33, no. 1 (February 2019): pp. 309–49, https://doi.org/10.1111/joes.12266.

12. Zyad Alreemy et al., "Critical success factors (CSFs) for information technology governance (ITG)," *International Journal of Information Management* 36, no. 6, Part A (December 1, 2016): pp. 907–16, https://doi.org/10.1016/j.ijinfomgt.2016.05.017.

13. Miriam Schwartz-Ziv and Michael S. Weisbach, "What do boards really do? Evidence from minutes of board meetings," *Journal of Financial Economics* 108, no. 2 (May 1, 2013): pp. 349–66, https://doi.org/10.1016/j.jfineco.2012.04.011.

14. Center for Board Effectiveness and Ira M. Millstein Center for Global Markets and Corporate Ownership, *The future of board time and priorities*, Deloitte and Columbia Law School, 2022.

15. Sarah Bartholomeusz, "Lead your company away from fear of technology," *Governance Directions* 68, no. 7 (n.d.): pp. 394–6, https://doi.org/10.3316/informit.289405753807959.

16. Nishani Edirisinghe Vincent, Julia L. Higgs, and Robert E. Pinsker, "Board and management-level factors affecting the maturity of IT risk management practices," *Journal of Information Systems* 33, no. 3 (September 1, 2019): pp. 117–35, https://doi.org/10.2308/isys-52229; Lawrence J. Trautman and Kara Altenbaumer-Price, "The board's responsibility for information technology governance," *Journal of Computer & Information Law* 28, no. 3 (2011): p. 313.

17. Cybersecurity Risk Management, Strategy, Governance, and Incident Disclosure, 87 FR 16590, (March 23, 2022).

18. Caroline C. Hartmann and Jimmy Carmenate, "Academic research on the role of corporate governance and IT expertise in addressing cybersecurity breaches: Implications for practice, policy, and research," *Current Issues in Auditing* 15, no. 2 (April 21, 2021): pp. A9–23, https://doi.org/10.2308/CIIA-2020-034.

19. Brad Lunn, "Strengthened director duties of care for cybersecurity oversight: Evolving expectations of existing legal doctrine," *Journal of Law & Cyber Warfare* 4, no. 1 (2014): pp. 109–37.

20. Rich Nanda et al., "A new language for digital transformation," Deloitte Insights, September 23, 2021; Ofir Turel, Peng Liu, and Chris Bart, "Board-level information technology governance effects on organizational performance: The roles of strategic alignment and authoritarian governance style," *Information Systems Management* 34, no. 2 (April 3, 2017): pp. 117–36, https://doi.org/10.1080/10580530.2017.1288523.

21. Shelly Ping-Ju Wu, Detmar W. Straub, and Ting-Peng Liang, "How information technology governance mechanisms and strategic alignment influence organizational performance: Insights from a matched survey of business and IT managers," *MIS Quarterly* 39, no. 2 (2015): pp. 497–518.

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