Chapter 6
Operationalizing AI Governance:
A Practical Roadmap and Case Study for Organizations Adopting Third-Party AI Systems

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ABSTRACT

This chapter presents the second phase of a multi-stage research agenda on operationalizing AI governance for organizations adopting third-party AI systems. Building on our conceptual AI Governance Implementation Framework (AGIF), this chapter translates theory into practice by developing the foundational oversight mechanisms that anchor an AI governance program through a practice-inspired, action design research based, collaborative inquiry. The resulting Roadmap for AI Governance (RAIG) outlines an eight-step implementation model, establishing the structures necessary for later operationalization. The roadmap provides practical guidance for establishing oversight structures, scoping AI systems, defining risks and controls, and integrating evaluation, testing, and validation processes. Findings reveal that effective AI governance requires iterative development, cross-functional collaboration, and integration with existing risk and data governance programs. This

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work demonstrates how governance can be embedded in real-world organizational settings, bridging the gap between conceptual frameworks and applied practice for responsible AI adoption.

INTRODUCTION

Artificial intelligence (AI) is reshaping the way organizations deliver services, make decisions, and interact with stakeholders. It has moved from experimental technology to a core driver of organizational transformation. Its integration into business operations is no longer limited to technology companies or research institutions; hospitals, universities, and financial institutions now rely on AI-powered tools for everything from clinical documentation to fraud detection and student support (Bracken et al., 2025; Martinez-Requejo et al., 2024; Mökander & Floridi, 2022; Odeyemi et al., 2024; Schneider et al., 2022; Taeihagh, 2021). IBM shared that about 42% of enterprise-scale organizations (over 1,000 employees) have actively deployed AI, and an additional 40% are exploring it (IBM, 2024). According to a McKinsey study, AI adoption rates in enterprises grew to 88% in 2025, from 78% in the previous year, with organizations piloting or deploying AI in at least one business process (McKinsey & Company, 2025).

This rapid diffusion of AI across sectors has created both opportunity and obligation. The majority of organizations are still reporting experimental or piloting stages compared to about one third maturing and scaling their AI programs, which generates governance-related risks (McKinsey & Company, 2025). AI risks are increasing: according to the same McKinsey study, at least half of reported organizations have seen negative consequences of AI, and many are implementing mitigation efforts attempting to control these. Yet, Deloitte's Global Survey identified that in almost half of organizations, AI is not on the agenda of their corporate boards (Deloitte, 2024). Organizations are under increasing pressure (from regulators, customers, and the public) to ensure that their use of AI is responsible, ethical, and trustworthy (Agbadamasi et al., 2025; Batool et al., 2023; Mökander & Floridi, 2022; Themann, 2025). The OECD updated its definition of AI systems in 2023, creating an increased urgency for organizations to implement governance mechanisms in this space (OECD, 2024).

In response, a growing number of frameworks, standards, and toolkits have emerged to guide the governance of AI systems. However, these efforts have largely focused on entities that build AI; those developing, training, or fine-tuning models (Batool et al., 2023; Cloud Security Alliance, 2025; European Union, 2024; ISO, 2020; Kuehnert et al., 2025; NIST, 2025a; Oliveira, 2023; Ribeiro et al.; World Economic Forum, 2023). Far less attention has been given to the vast number of