Current Research Projects

MIT CISR investigates contemporary concerns to help executives meet the challenge of leading dynamic, global, and information-intensive organizations. MIT CISR research scientists and collaborators from around the world produce rigorous academic research using a variety of methods. The relevance of the research is ensured by the active participation of corporate sponsors and patrons from a range of industries; our insights are disseminated through research publications and events.

Business Models in the Agentic AI Era

Given the rapid pace of AI development and its potential to reinvent enterprises, this research will continue our exploration of how business models are likely to evolve over the next five years and beyond. In 2025, MIT CISR introduced a business model framework for the AI era, drawing from our original digital business model framework plus theory and business examples. The new framework hypothesizes four AI-enabled business models: Existing+, Proxy, Modular Curator, and Orchestrator.

In this study, we will create a set of working groups, each comprising 5–10 participants. Working group members, along with other leaders from their enterprise, will complete a short survey and participate in a 45-minute interview about business models and AI.

The project seeks to address the following key research questions:

- How does AI change existing business models, and what fundamentally new business models does it enable?
- What capabilities do enterprises need to build and leverage an AI-enabled business model?
- What are the performance implications of integrating AI into one or more of an enterprise's business models?
- How does existing scale, regulation, data access, and partnership arrangements—shape the evolution of these models?

RESEARCH TEAM: Peter Weill (lead, MIT CISR), Stephanie L. Woerner (MIT CISR), Ina M. Sebastian (MIT CISR)

SEEKING: We are seeking participation in the research from leaders of enterprises that are actively integrating agentic AI throughout the organization.

Decision Rights, Autonomy, and Value in the Agentic AI Enterprise

Enterprises increasingly deploy agentic AI for decisions ranging from highly structured operational choices to strategic judgments. Empirical evidence is limited on how decision rights should be allocated between agents and humans, what levels of autonomy are appropriate, and which governance mechanisms can both ensure trust and drive value.

Building on an AI decision rights matrix (decision impact × decision structure) that we developed in 2025, we will create a framework of agentic decision contexts, governance design principles, and evidence of performance outcomes.

This study will use semi-structured interviews with senior executives in enterprises piloting or operating AI agents.

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We will focus on the following research questions:

- In which decision classes should AI agents decide and act, and under what conditions?
- Which governance policies and practices effectively constrain risk while enabling learning and scale?
- How do enterprises embed agent decisions in workflows, and what performance changes do they observe?

RESEARCH TEAM: Ina M. Sebastian (lead, MIT CISR), Thomas Haskamp (University of Muenster), Jan vom Brocke (University of Muenster)

SEEKING: We are seeking participation from executives in enterprises that are using or piloting AI agents. We aim for three interviews per enterprise, with executive interviewee roles in strategy/monetization, technology/operations, and people/governance.

Managing Digital Colleagues

Have you ever treated your AI tool as a colleague—by saying “please,” “thank you,” or “good job”? Some people anthropomorphize their AI tools, implicitly treating them as digital colleagues. This raises questions for companies: What constitutes a digital colleague, and how should digital colleagues be managed?

In our discussions with senior leaders, we have heard how AI—particularly agentic AI—is becoming more embedded into many companies’ operations: Digital colleagues are being added to human teams, managing the work of other digital colleagues, and sometimes managing human colleagues.

In this study, we will explore how these companies are integrating digital colleagues into their work, and how this is changing company performance, processes, relationships, and structure. We will create a set of working groups, each including 5–10 participants. Group members, as well as other leaders in each company, will complete a short survey and participate in a 45-minute interview about what it means to have digital colleagues and best practices for dealing with them.

Research questions will include:

- How are top-performing companies working with digital colleagues, and which early use cases are showing success?
- What organizational changes are needed to maximize value from digital colleagues?
- How do companies using digital colleagues need to redesign jobs?
- What is the impact of digital colleagues on productivity, pricing, training, and hiring?
- What governance approaches for working with digital colleagues are best?

This project is a continuation of MIT CISR’s 2024 research project “What’s Next: Becoming a Real-Time Business.”

RESEARCH TEAM: Stephanie L. Woerner (lead, MIT CISR), Peter Weill (MIT CISR), Ina M. Sebastian (MIT CISR)

SEEKING: We are seeking participation in the research from companies that have actively developed digital colleagues and have experiences they can share.

Reimagining the Future of Data Management

This project seeks to learn how next-generation data practices can drive organizational growth, efficiency, and resilience. The research will investigate the impact of advances such as AI-driven data curation, automated data governance, decentralized and federated data processing, and privacy-enhancing technologies. We will assess how these innovations address challenges in emergent data management requirements, such as managing unstructured data, right-time analytics, and agentic data sharing. Beyond technology, the research will consider what leadership models, skills, and investment priorities are required when data management must enable phenomena like AI, robotics, and quantum computing.

This study will rely on a combination of literature review and interviews with expert academics and partitioners to identify the trends, risks, and opportunities shaping the future of data management.

We will focus on the following research questions:

- In the decade ahead, what novel problems must data management address?
- What current technological advancements should leaders keep in mind when remediating emergent data management problems?
- What new considerations are important for leaders making data management investments?

RESEARCH TEAM: Barbara H. Wixom (lead, MIT CISR) and a variety of MIT CISR academic research fellows who will engage in this research based on their expertise

SEEKING: We are seeking participation in the research by data leaders who are actively investing in data management practices that solve novel and challenging problems.

Skills in Motion: Developing Expertise at the Pace of Change

In 2025, MIT CISR research examined how knowledge workers integrate AI into their work and the implications for the employee experience. We found that as AI reshapes workflows, the skills that differentiate human contribution shift faster than organizations can respond through traditional training. Periodic upskilling is failing to keep pace.

This year, we will study how organizations and employees are closing the gap between rapidly changing skill requirements and workforce readiness. We will focus on three challenges: sensing when employee capabilities are becoming misaligned with evolving work demands, embedding skills development into everyday work, and helping employees shed established professional identities to embrace new contributions. By investigating organizations that have reduced the lag between requirements and readiness, we seek to surface practical approaches that improve organizational agility and the employee experience.

This study will rely on interviews with leaders and knowledge workers, complemented by exploratory qualitative case vignettes from organizations pioneering new approaches to skills development.

We will focus on the following research questions:

- How are organizations embedding skills development into the flow of work to enable learning at the moment of need?
- How do organizations detect skill misalignment as roles and workflows evolve, and translate those signals into targeted opportunities for growth?

- How do organizations support expertise transitions, including moving beyond established professional identities?
- As AI takes on a greater share of tasks, how do employees decide which distinctly human strengths to develop?

This project is a continuation of MIT CISR's 2025 research project "Work Reworked: Succeeding with Human-AI Collaboration."

RESEARCH TEAM: Nick van der Meulen (lead, MIT CISR), Maryam Alavi (Georgia Institute of Technology), Cynthia M. Beath (University of Texas at Austin)

SEEKING: We are seeking interviews with leaders and knowledge workers in organizations that are actively rethinking how skills development happens—particularly those experimenting with AI-enabled learning in the flow of work, internal talent marketplaces, peer learning and mentorship models, or new approaches to measuring and signaling skill growth.

The Enterprise IT Operating Model's Role in Capturing AI Value

The IT function is critical to capturing the business value of AI investments, yet that value remains elusive. Many organizations report incremental productivity gains from AI but no positive cash flows. IT organizations are uniquely positioned to address this challenge: they are experienced in managing organizational change and in the intake of business initiatives, from discovery through validation to build and scale.

Building on the Enterprise IT Operating Models framework we developed in 2025, in this study we will specifically look at AI adoption in each of the four models we described. We seek to identify practices that improve innovation and productivity, reduce costs, and increase the reliability of AI initiatives within each model.

We will focus on the following research questions:

- How does an enterprise's IT operating model affect the intake and delivery of AI initiatives?
- How does the governance of AI vary by IT operating model?
- Do value capture, interaction with the technology supplier ecosystem, and risk management vary by IT operating model?
- What is the role of enterprise architecture in each model in scaling AI?

This project is a continuation of MIT CISR's 2025 research project "The IT Operating Model of the Future."

RESEARCH TEAM: Alan Thorogood (lead, MIT CISR), Stephanie L. Woerner (MIT CISR), Asif Gill (University of Technology Sydney)

SEEKING: We are seeking participation in the research from enterprises actively improving how the IT function can increase the business value of AI.