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.

Agents of Change: Governing Autonomous AI

As organizations continue to explore the potential of generative artificial intelligence (GenAI) tools and solutions, they now also face the emergence of AI agents: (semi)autonomous systems that can evaluate and interact with their environment to achieve defined objectives. While GenAI presents new ways to improve individual productivity and realize organizational value, agentic AI extends these advancements with the autonomy to augment organizational processes at scale. Such functionality raises critical governance questions regarding the authority and accountability for how AI agents achieve their objectives. In this project, we will explore how organizations approach the potential benefits of AI agents with the necessary oversight to ensure alignment with strategic objectives and organizational values.

This study will rely on interviews and a series of exploratory qualitative case vignettes.

We will focus on the following research questions:

- How does the deployment of AI agents affect decision rights in organizations?
- What governance mechanisms do organizations find effective for managing multiagent systems with various levels of autonomy?
- How do organizations ensure responsible experimentation when using low-code/no-code agentic frameworks for AI development?

RESEARCH TEAM: Nick van der Meulen (lead, MIT CISR), Jennifer Jewer (Memorial University), Nadège Levallet (University of Maine, Yolande E. Chan (McGill University)

SEEKING: We are seeking interviews with organizational leaders, technical teams, and non-technical users of AI who are engaged in the development, deployment, and oversight of AI agents who are engaged in the development, deployment, and oversight of AI agents.

Designing an Organization for High Data Liquidity

Big organizations, especially those with big aspirations for leveraging AI technology, increasingly need data assets with high *data liquidity* (i.e., ease of data asset reuse and recombination) to achieve their aims. However, developing and fully exploiting liquid data assets requires significant changes to data architecture, development processes, operations, and organizational design. Further, effectively managing liquid data assets requires that organizations learn how to measure and realize value from data assets and establish adaptable data asset management practices.

Research questions we will pursue include:

- How can organizational design enable the establishment of data liquidity management practices and processes?
- What are the current states of data liquidity investments and outcomes in organizations?
- What management practices help organizations effectively build liquid data assets?

MIT Sloan School of Management
Center for Information Systems Research
245 First Street, E94-15th Floor
Cambridge, MA 02142

t 617.253.2348
f 617.253.4424
cisr.mit.edu
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This study will rely on a large-scale case study of a global manufacturing organization that has learned over time how to successfully build and monetize liquid data assets as a part of the organization's standard operations. Additionally, the study will analyze data from a 2024 MIT CISR survey of 349 executives who understand their organization's data monetization investments and outcomes. The analysis will identify the current states in organizations of data asset experience, digital data assets, data liquidity investments, and data asset reuse and recombination.

RESEARCH TEAM: Barbara H. Wixom (lead, MIT CISR), Gabe Piccoli (Louisiana State University), Joaquin Rodriguez (Grenoble Ecole de Management), Nick van der Meulen (MIT CISR), Cynthia M. Beath (University of Texas at Austin), Ida A. Someh (University of Queensland)

SEEKING: We are seeking executives who will react and contribute to insights during the analysis phase of the project.

Getting into the Flow: How Companies Use AI to Build High-Performing Business Processes

Powerful business processes are at the core of the future-ready company, and a requirement for automation at scale. AI offers fundamentally new opportunities for the design, execution, and management of processes to achieve excellence in both operations and customer experience. The future-ready company will use AI agents to analyze massive amounts of real-time data, including digital trace data; to evaluate processes; to predict customer experience by linking process patterns to customer data; and to recommend next-best actions, taking into account a wealth of factors such as the current economic situation and the company's performance.

In this study, we will examine how high-performing companies take process knowledge to the next level with AI. We will analyze the opportunities and challenges of using AI in processes and develop a framework depicting how organizations systematically build future-ready AI-enabled processes.

This study will rely on interviews and a series of qualitative case vignettes on three companies that are successfully applying AI to improve business processes.

We will focus on the following research questions:

- How are companies using AI to manage processes in new ways (linking operational efficiency and customer experience)?
- What practices are companies developing for organizational learning from AI in process management?
- How are companies capturing and analyzing digital trace data to link operational efficiency and customer experience in business process performance?

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

SEEKING: We are seeking participation in the research from executives who are responsible for business processes and engaged in developing and deploying process-enhancing AI capabilities, including AI agents, for processes in their organization.

How Real-Time Businesses Outperform

In 2024 we identified that real-time businesses outperform their competitors in every industry. In 2025, collaborating with IFS, we will study in real time how real-time businesses operate. For example, we will benchmark how long it takes companies to make key decisions, the percentage of their workforce that accesses real-time data, and the types of real-

time decisions they make. The goal is to understand the key capabilities of companies that operate more in real time than their competitors and the financial impacts.

This study will rely on anonymized enterprise transactional data pulled from operational backbone systems.

We will focus on the following research questions:

- How do real-time businesses outperform competitors?
- What are the key real-time decisions that differentiate performance?
- How long does it take companies to make key decisions?
- Does having more employees access real-time data affect firm performance, customer experience, and employee experience?
- What real-time data is needed to make the key real-time decisions?

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

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

SEEKING: We are not seeking participation in the research at this time.

Managing Acceptable Data Use in an AI World

As organizations become more AI-fueled and pursue complex digital business opportunities, they must have sufficient data and AI capabilities—and guardrails that keep them on course. They must invest in practices that ensure compliance with an evolving regulatory landscape (e.g., AI regulations), address increased scrutiny regarding sustainability impact (e.g., the carbon footprint of AI models), and manage new (especially generative AI) and old vendor dependencies. They must manage data assets throughout their lifecycle and oversee masses of data users.

Research questions we will pursue include:

- What do leaders consider "acceptable data use" in their organization, and what practices do they use to establish sufficient data and AI guardrails?
- What practices help leaders manage the data asset lifecycle, specifically the deletion of data amidst growing regulatory and legal constraints and monetization opportunities?
- How should leaders incorporate the sustainability impact of data management and AI model processing when formulating the profit formula (costs, benefits, and risks) of their data assets?
- How do vendor involvement, cross-organizational data sharing, and decentralized users influence the dynamics of acceptable data use oversight?

This exploratory study will draw on interviews with members of the MIT CISR Data Advisory Board and select other data leaders and CxOs around the globe. The interviews will explore contemporary acceptable data use management challenges—and what responses leaders are finding to be effective.

RESEARCH TEAM: Barbara H. Wixom (lead, MIT CISR), Cynthia M. Beath (University of Texas at Austin), Hippolyte Lefebvre (University of Lausanne)

SEEKING: We are seeking to interview data and analytics executives who are successfully navigating contemporary acceptable data use challenges such as AI model sustainability and data deletion.

Moving from Silos and Spaghetti to Reusing Digital Assets

In previous MIT CISR research, we demonstrated significant performance impacts from moving from silos and spaghetti to curated and nurtured platforms. We also found several ways to generate value from digital platforms. In this research we will explore the next iteration of the platform research: identifying the different types of digital assets that will create value in the next three years. We will identify and classify different types of digital assets (we think of digital platforms as one type of digital asset), understand the key capabilities of the assets, and assess the potential impacts of these assets on financial performance. We expect the types of digital assets to include at least the following: digital-savvy culture, digital skills, reusable digital platforms, digital partnerships, digital learning capability, and unique data accessible across the enterprise.

This study will rely on a survey conducted in 2025 and a series of case studies.

We will focus on the following research questions:

- What are the digital assets that will create the most value in the next three years?
- What are the key dimensions underlying the creation of successful digital assets?
- How do enterprises organize to get the most value from digital assets?

This project is a continuation of MIT CISR's 2024 research project "Successful Enterprise-Based Platform Businesses."

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

SEEKING: We are seeking participation in the research from executives who are creating and nurturing digital assets.

Scaling at Scale: Three Components to Realizing Consequential Value from Digital Innovation

In earlier research, we found that organizations that achieve ambitious strategic objectives launch many digital innovation initiatives and then systematically help most that prove their worth to scale and realize value. These organizations have created an organizational capability to enable multiple initiatives to realize value from their innovation by leveraging shared resources, which we call scaling at scale. In this year's project, we will collect and analyze survey data regarding three components that contribute to a scaling-at-scale capability: digital innovation initiatives, shared innovation resources, and dynamic resource reallocation.

We will focus on the following research questions:

- How do organizations help promising initiatives to scale and realize value?
- How much do top-performing organizations depend on the three components?
- What practices distinguish organizations that realize significant value from innovation from those that do not?

This project is a continuation of MIT CISR's 2024 research project "Boosting the Strategic Impact of Digital Innovations: Essential Practices."

RESEARCH TEAM: Nils O. Fonstad (lead, MIT CISR), Martin Mocker (Reutlingen University), Jukka Salonen (MIT CISR), Stephanie L. Woerner (MIT CISR)

SEEKING: We are seeking participation in the research from executives who have a holistic understanding of their organization's portfolio of digital innovation investments and practices and the extent to which the organization's digital innovation initiatives relate to its strategic objectives.

The IT Operating Model of the Future

As IT functions evolve to service increasingly digital business operations, the IT operating model is changing. This project will take a deep dive into different types of IT operating models to study how they support organizations in capturing value from digital technologies. The project will explore organizational structure and processes, decision rights, and funding models using interviews and a survey. In addition, we will examine practices and capabilities raised in the interviews.

We will focus on the following research questions:

- The 2024 project identified six forces: AI, employees with both IT and business expertise, platform investments, cybersecurity, increasing legislation, and supplier power. How do organizations respond to these forces?
- Where are digital capabilities best managed—in the business or the IT function, and at the enterprise or business unit level?
- Who makes which decisions?
- What are the metrics needed to assess performance?

This project is a continuation of MIT CISR's 2024 research project "Organizational IT of the Future."

RESEARCH TEAM: Alan Thorogood (lead, MIT CISR), Stephanie L. Woerner (MIT CISR), Cynthia Beath (University of Texas at Austin)

SEEKING: We are seeking interviews with chief information officers and chief data officers, along with their chiefs of staff who are responding to the evolving demands with innovative approaches, as well as consultants and academics who work in this area.

Update on the Enterprise AI Maturity Model

In 2024, we created a four-stage enterprise AI maturity model based on data from 721 companies and 9 case studies. In 2025, we will pursue new data and conduct new case studies to identify changes in how companies are creating enterprise value from AI and incorporate updates into the model. One focus of our research will be to look at how and when companies combine different types of AI—for example, analytic AI, generative AI, robotic AI, and agentic AI—to create value.

This study will rely on a 2025 survey and case vignettes.

We will focus on the following research questions:

- Are companies maturing in their use of enterprise AI?
- Are companies combining different types of AI, and if so, how?
- Are there industry differences in enterprise AI maturity?
- What new capabilities do companies need as they mature in their use of enterprise AI and in using combinations of AI?

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

SEEKING: We are seeking participation in the research from companies using AI to create enterprise value. We are especially interested in companies that are combining different types of AI to create value.

What's Your AI-Enabled Business Model?

In 2018, MIT CISR researchers Peter Weill and Stephanie L. Woerner authored a book called *What's Your Digital Business Model?* It's time to update that research to study how AI can enable new and different business models and how it might improve existing business models. The goal is to create and validate a framework for how enterprises can create value in the era of AI—identifying the new capabilities required to integrate AI into the enterprise's business model and understanding the performance impacts.

This study will rely on a 2025 survey of hundreds of enterprises and a series of detailed case studies.

We will focus on the following research questions:

- How does AI change existing business models? What new business models are now possible?
- What kinds of capabilities do enterprises need to build to take advantage of an AI-enabled business model?
- What are the performance impacts of integrating AI into an enterprise's business model(s)?

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

SEEKING: We are seeking participation in the research from companies that are using AI to create enterprise value. We are especially interested in companies that are combining different types of AI to create value.

Work Reworked: Succeeding with Human-AI Collaboration

In 2024, MIT CISR research showed that organizations increasingly integrated generative artificial intelligence (GenAI) into the workplace. Data and technology leaders from MIT CISR's Data Research Advisory Board estimated that by 2027, 72 percent of their employees will collaborate with GenAI in some capacity. This year, we therefore explore the evolving relationship between knowledge workers and AI, focusing on how AI influences the employee experience, job design, and skills development. By investigating the ways in which knowledge workers integrate AI into their work—and how leaders support these changes—we seek to understand how AI may simultaneously affect employee and organizational performance.

This study will rely on interviews and a series of exploratory qualitative case vignettes.

We will focus on the following research questions:

- How does AI influence employees' perceptions of agency in changing their work and work conditions?
- How do collective work habits—for instance, regarding peer learning and support networks in organizations—change in response to greater employee collaboration with AI?
- How do employees incorporate AI collaboration into their training and career development plans?

This project is a continuation of MIT CISR's 2024 research project "AI at Work: Transforming the Employee Experience."

RESEARCH TEAM: Nick van der Meulen (lead, MIT CISR), Maryam Alavi (Georgia Institute of Technology)

SEEKING: We are seeking interviews with leaders and knowledge workers in organizations that are actively integrating generative AI tools and solutions into workflows.