

LEARNING AI INSTITUTE

in partnership with

MetHer By Design, LLC

Research Insight Series • LAI-RIS-002

Groundmaps: Measuring Organizational Readiness Before AI Implementation

The Literature Base for Organizational AI Readiness

“Artificial intelligence does not eliminate the need for strategy; it elevates the need for organizational readiness. Before leaders chart the future, they must first understand the ground beneath their feet.”

Dr. Matt Meador

Publication Information

Research Insight Series	LAI-RIS-002
Title	Groundmaps: Measuring Organizational Readiness Before AI Implementation
Subtitle	The Literature Base for Organizational AI Readiness
Author	Dr. Matt Meador
Founder	MetHer By Design, LLC
Executive Director	Learning AI Institute
Publication Date	July 2026
Version	Public Draft 1.0
Keywords	AI readiness; Groundmaps; LAIR Framework; organizational readiness; AI governance; digital transformation

Recommended Citation

Meador, M. (2026). Groundmaps: Measuring organizational readiness before AI implementation. Learning AI Institute Research Insight Series, LAI-RIS-002. Learning AI Institute & MetHer By Design, LLC.

Roadmaps vs. Groundmaps, Groundmaps, and the LAIR Framework are original intellectual property created by Dr. Matt Meador and published through Learning AI Institute and MetHer By Design, LLC.

© 2026 Learning AI Institute & MetHer By Design, LLC. All Rights Reserved.

Executive Summary

This second publication in the Learning AI Institute Research Insight Series continues the argument introduced in LAI-RIS-001: AI strategy requires more than a roadmap. It requires a disciplined understanding of the organizational ground beneath the roadmap. While the first paper introduced the distinction between roadmaps and Groundmaps, this paper establishes the literature base that supports Groundmaps as a legitimate organizational readiness construct.

The central argument is straightforward: organizations cannot implement AI responsibly, effectively, or sustainably if they do not first understand their current readiness. AI readiness is not limited to technical infrastructure. It includes leadership alignment, workforce literacy, application capacity, interpretive judgment, governance maturity, organizational culture, and the ability to adapt as AI capabilities and risks evolve.

Drawing from organizational change theory, technology adoption research, organizational readiness, digital transformation, dynamic capabilities, and international AI governance frameworks, this paper positions the Groundmap as a pre-implementation framework for assessing present-state organizational capability before AI roadmaps are developed or scaled.

Executive takeaway: Roadmaps define where an organization wants to go. Groundmaps establish whether the organization is ready to begin the journey.

Introduction

The inaugural paper in the Learning AI Institute Research Insight Series, *Roadmaps vs. Groundmaps: Why AI Changes Strategic Planning* (Meador, 2026), introduced the Groundmap as a strategic complement to the traditional roadmap. That paper argued that artificial intelligence changes the assumptions, capabilities, risks, and decision structures beneath strategic planning. This second paper asks the next question: What is the scholarly foundation for Groundmaps?

This paper answers that question by connecting the Groundmap concept to established research in organizational change, technology adoption, organizational readiness, digital transformation, dynamic capabilities, and AI governance. The intent is not to present Groundmaps as an isolated idea, but as a synthesis of longstanding research traditions that have become newly urgent in the age of artificial intelligence.

Organizations are moving quickly. Boards are asking about AI. Executives are launching pilots. Universities are creating AI task forces. Government agencies are developing policies. Businesses are purchasing copilots and deploying generative AI tools into daily workflows. Yet speed does not equal readiness. The more powerful the technology becomes, the more important it is to understand the human, organizational, and governance conditions that determine whether implementation succeeds.

This is the purpose of a Groundmap. It helps leaders move from aspiration to evidence. It asks what must be true beneath the roadmap for AI implementation to succeed.

The Problem

Organizations frequently begin AI implementation by selecting technologies, developing roadmaps, and launching pilot initiatives without first establishing a grounded understanding of their present-state readiness. As a result, workforce capability remains uneven, governance emerges reactively, decision rights remain unclear, shadow AI expands, and implementation risk increases.

The problem is not that organizations lack AI ambition. The problem is that many organizations lack a structured method for determining whether their leadership, workforce, governance systems, culture, and operating models are prepared to support AI implementation. This creates a gap between strategy and execution.

Purpose of this Work

The purpose of this conceptual paper is to synthesize established literature into a unified theoretical foundation for the Groundmap framework. The paper positions Groundmaps as a pre-implementation readiness construct designed to complement roadmaps by assessing the organizational conditions that influence AI implementation success.

Research Questions

- How do established theories explain organizational readiness for AI implementation?
- What dimensions consistently emerge across organizational change, technology adoption, organizational readiness, digital transformation, dynamic capabilities, and AI governance literature?
- How can those dimensions be synthesized into a practical Groundmap framework for pre-implementation assessment?

Significance of this Work

This paper contributes to the Learning AI Institute research agenda by establishing the theoretical foundation for Groundmaps as a core concept in organizational AI readiness. For executives, the paper provides a disciplined rationale for assessing readiness before building implementation plans. For researchers, it identifies a conceptual bridge across several bodies of literature. For policymakers and institutional leaders, it reinforces that responsible AI governance requires organizational capability, not policy language alone.

Conceptual Definitions

Roadmap: A strategic plan that identifies where an organization intends to go, what it intends to do, and in what order work should occur.

Groundmap: A structured assessment of the organizational conditions, capabilities, risks, and readiness factors that determine whether the roadmap can succeed.

AI Readiness: The degree to which an organization possesses the leadership alignment, workforce capability, governance maturity, decision processes, and adaptive capacity required for responsible AI implementation.

LAIR Framework: The Learning AI Institute framework organized around Literacy, Application, Interpretation, and Responsibility.

Organizational Alignment: The degree to which leadership, culture, processes, resources, and decision rights support AI implementation.

Literature Review

The following literature review forms the scholarly core of this publication and is included without substantive deletion from the revised manuscript prepared for LAI-RIS-002.

From AI Adoption to Organizational Readiness

Artificial intelligence has rapidly become a strategic priority for organizations across the public, private, nonprofit, and higher education sectors. Executive leaders are investing in AI copilots, intelligent automation, predictive analytics, and generative AI with the expectation that these technologies will improve productivity, enhance decision-making, and create competitive advantage. Yet despite unprecedented investment, many organizations continue to struggle to move beyond isolated pilots toward sustainable enterprise-wide adoption. This challenge is not unique to artificial intelligence. Decades of research in organizational change, technology adoption, digital transformation, and innovation consistently demonstrate that successful implementation depends as much on organizational readiness as on the capabilities of the technology itself. While technologies evolve rapidly, organizations change more slowly. Leadership, culture, governance, workforce capability, and institutional trust remain the primary determinants of whether technological investments translate into organizational value.

The literature reveals a consistent pattern: organizations often focus first on selecting technology and only later consider whether they possess the organizational capacity necessary to implement it effectively.

The Groundmap proposed in this paper is presented as a conceptual framework rather than a validated measurement instrument. Its purpose is to synthesize established research on organizational change, technology adoption, readiness, digital transformation, and AI governance into a practical model for pre-implementation assessment. Future empirical research should examine the framework's reliability, construct validity, and predictive value across sectors and organizational contexts.

Change Begins with Organizations, Not Technology

Foundational theories of organizational change argue that transformation begins long before new technologies are deployed. Lewin's (1947) model of organizational change describes transformation as a deliberate progression through preparation, transition, and stabilization. Although developed nearly eighty years ago, the model remains relevant because it recognizes that organizations must first create conditions that enable change before expecting new behaviors to emerge.

Kotter (1996) expanded this perspective by demonstrating that organizational transformation depends upon leadership alignment, a compelling vision, effective communication, and sustained organizational commitment. Technology alone does not produce transformation; leadership creates the conditions in which transformation becomes possible.

Senge (1990) further argued that organizations capable of continuous learning consistently outperform those that merely implement new tools. His concept of the learning organization positions adaptation, reflection, and shared learning as enduring organizational capabilities rather than temporary implementation activities. Collectively, these theories suggest that AI implementation should be understood as an organizational transformation initiative rather than a technology deployment project.

Technology Adoption Is Fundamentally Human

While organizational change theories explain how institutions evolve, technology adoption research explains why individuals embrace- or resist- new technologies. Davis's (1989) Technology Acceptance Model established that individuals are more likely to adopt technology when they perceive it to be useful and relatively easy to use. Rogers (2003) broadened this understanding by demonstrating that innovations diffuse at different rates depending upon their compatibility with existing organizational practices, perceived advantages, complexity, and visibility. Building upon these perspectives, Venkatesh et al. (2003) introduced the Unified Theory of Acceptance and Use of Technology (UTAUT), identifying performance expectations, social influence, facilitating conditions, and effort expectancy as key drivers of technology adoption. Together, these models reinforce an important reality: organizations do not adopt AI-people do. Employees, managers, faculty, clinicians, analysts, and executives ultimately determine whether artificial intelligence becomes integrated into everyday decision-making or remains an underutilized investment.

Organizational Readiness Determines Implementation Success

Research increasingly demonstrates that implementation success depends upon organizational readiness rather than technological sophistication alone. The Technology-Organization-Environment (TOE) Framework (Tornatzky & Fleischer, 1990) argues that technology adoption results from the interaction of technological capability, organizational characteristics, and external pressures. Readiness therefore extends beyond infrastructure to include leadership, organizational processes, institutional culture, and environmental conditions. Weiner (2009) further defines organizational readiness as the shared commitment and collective confidence of organizational members to successfully implement change. Organizations that possess both commitment and capability consistently demonstrate greater implementation success than organizations

possessing only one or the other. These findings are particularly relevant in the context of artificial intelligence. An organization may possess modern infrastructure and sophisticated AI tools while simultaneously lacking workforce confidence, governance structures, decision-making processes, or leadership alignment necessary for sustainable adoption.

Technology readiness alone does not produce organizational readiness.

Digital Transformation Is a Leadership Challenge

The digital transformation literature reinforces this distinction between technology implementation and organizational transformation. Westerman, Bonnet, and McAfee (2014) conclude that organizations achieving the greatest value from digital transformation invest simultaneously in technological capability and leadership capability. Technology becomes a competitive advantage only when organizations redesign processes, empower employees, and develop new operating models.

Similarly, Brynjolfsson and McAfee (2014) argue that advances in intelligent technologies increasingly elevate the importance of uniquely human capabilities—including judgment, collaboration, creativity, ethical reasoning, and strategic decision-making. As artificial intelligence assumes more routine cognitive tasks, organizational success becomes increasingly dependent upon human judgment rather than technological novelty. The implication is clear: AI implementation is ultimately a leadership challenge rather than an engineering challenge.

AI Readiness as a Dynamic Capability

The dynamic capabilities literature provides another important foundation for understanding AI readiness. Teece, Pisano, and Shuen (1997) argue that long-term advantage depends not simply on the resources an organization possesses, but on its ability to integrate, build, and reconfigure internal and external competencies in response to changing environments. In the context of artificial intelligence, readiness should therefore be understood not as a fixed state, but as an adaptive organizational capability.

This distinction matters because AI systems, regulatory expectations, workforce practices, and organizational risks are evolving rapidly. A readiness assessment that captures only technical infrastructure will become obsolete quickly. A Groundmap, by contrast, should help leaders identify whether the organization possesses the capacity to learn, adapt, govern, and reconfigure work as AI capabilities change.

From this perspective, AI readiness is not merely preparation for a single implementation project. It is a dynamic capability that enables organizations to sense emerging opportunities and risks, seize appropriate uses of AI, and continually transform workflows, policies, and human capabilities over time.

Responsible AI Requires Organizational Capability

Recent international frameworks further extend readiness beyond adoption toward governance and responsible implementation. The OECD AI Principles emphasize human-centered values, transparency, accountability, robustness, and inclusive growth. The NIST Artificial Intelligence Risk Management Framework (AI RMF 1.0) provides organizations with a structured process for identifying, assessing, managing, and monitoring AI-related risks. ISO/IEC 42001 establishes management system requirements for governing AI throughout its lifecycle, while UNESCO's Recommendation on the Ethics of Artificial Intelligence positions ethical stewardship as a foundational organizational responsibility. Although these frameworks differ in scope and application, they share an important assumption: organizations possess the internal capability necessary to operationalize

responsible AI practices. Yet governance frameworks rarely begin by asking whether organizations are prepared to implement the governance they recommend.

The Missing Foundation

Across more than seven decades of research, a remarkable consensus has emerged. Organizational change theory explains how transformation occurs. Technology adoption research explains why individuals embrace innovation. Organizational readiness research identifies the conditions that enable successful implementation. Digital transformation research demonstrates that leadership and culture determine long-term value. AI governance frameworks establish principles for responsible implementation.

Each contributes an essential piece of the implementation puzzle.

Yet none begins with the same fundamental question:

What is the organization's starting point?

Organizations routinely invest significant resources developing AI roadmaps that define future-state aspirations while investing comparatively little effort establishing an evidence-based understanding of their present-state capabilities.

Roadmaps answer where an organization intends to go.

They rarely establish where the organization actually stands.

Although these bodies of literature collectively explain organizational change, technology adoption, digital transformation, organizational capability, and AI governance, they stop short of offering an integrated framework for measuring organizational AI readiness prior to implementation. Existing models explain how organizations change, why individuals adopt technology, and how AI should be governed, but they do not provide leaders with a practical mechanism for establishing an evidence-based baseline of organizational capability before implementation begins. This paper proposes the Groundmap as that missing bridge, connecting organizational change theory, technology adoption research, organizational readiness, dynamic capabilities, and AI governance into a unified readiness framework. This paper argues that effective AI implementation requires both. Before organizations define the path forward, they must first understand the foundation from which they are building. The concept of the Groundmap is introduced to address this gap by providing a structured framework for assessing organizational readiness prior to AI implementation, enabling leaders to align strategy, capability, governance, and workforce development before technology deployment begins.

Toward an Integrated AI Readiness Model

The Groundmap framework synthesizes several streams of research into a practical model for AI readiness assessment. Rather than treating these bodies of literature as separate conversations, the framework positions them as interdependent layers of organizational readiness. Organizational change theory explains why the conditions for change must be established before implementation. Technology adoption research explains why individual perceptions, confidence, and facilitating conditions shape adoption. Organizational readiness research emphasizes commitment and capability. Digital transformation and dynamic capabilities literature highlight leadership, operating models, and adaptability. AI governance frameworks clarify the responsibility structures required for safe and accountable use. The contribution of the Groundmap is to translate those

theoretical insights into a pre-implementation assessment logic. Its central claim is that organizations should not move directly from AI aspiration to AI roadmap. They should first establish a grounded picture of current capability.

Figure 1. Integrate AI Readiness Pathway



This pathway reframes AI readiness as a sequential and iterative process. Roadmaps remain important, but they should emerge from readiness evidence rather than from aspiration alone. In this model, the Groundmap

becomes the diagnostic foundation that connects theory to practice and enables leaders to identify capability gaps before scaling AI across the organization.

Table 1

Groundmap dimensions and supporting theoretical foundations.

Groundmap Dimension	Primary Readiness Question	Supporting Literature
Literacy	Do organizational members understand AI well enough to use it appropriately?	Davis (1989); Rogers (2003); Venkatesh et al. (2003)
Application	Where is AI already being used, formally or informally, across workflows?	Tornatzky & Fleischer (1990); Westerman et al. (2014)
Interpretation	Can employees evaluate AI outputs, identify limitations, and exercise judgment?	Senge (1990); Brynjolfsson & McAfee (2014)
Responsibility	Are governance, accountability, risk, and documentation practices in place?	NIST (2023); OECD (2019); UNESCO (2021); ISO (2023)
Organizational Alignment	Are leadership, culture, processes, and change capacity aligned for implementation?	Lewin (1947); Kotter (1996); Weiner (2009); Teece et al. (1997)

Table 1 illustrates how the Groundmap dimensions are anchored in existing scholarship while extending that scholarship into an AI-specific readiness model. The first four dimensions correspond to the Learning AI Institute's LAIR Framework-Literacy, Application, Interpretation, and Responsibility-while organizational alignment extends LAIR into enterprise-level change management and implementation capacity.

Discussion: What the Literature Establishes

Taken together, the literature establishes that AI readiness is neither a purely technical condition nor a static organizational attribute. It is a multidimensional capability that must be understood before organizations attempt to scale AI implementation. Organizational change theory shows that transformation begins before new behaviors are expected. Technology adoption research shows that people ultimately determine whether tools become embedded in practice. Organizational readiness research shows that commitment and capability matter together. Digital transformation and dynamic capabilities research show that leadership and adaptability shape long-term value. AI governance frameworks show that responsible implementation requires formal structures, risk processes, and accountability.

The Groundmap concept brings these insights into a single pre-implementation logic. Rather than asking leaders only to define future-state goals, it asks them to examine whether the current organization can support those goals. This shifts AI strategy from aspiration to evidence.

Groundmaps do not replace roadmaps. They make roadmaps more honest, more actionable, and more resilient.

Implications for Leaders

Do not confuse AI activity with AI readiness. Pilots, tools, and policies may indicate activity, but they do not prove organizational capability.

Assess the ground before scaling the roadmap. Enterprise AI requires evidence about leadership alignment, workforce literacy, governance, and operating capacity.

Treat human judgment as a strategic asset. AI implementation should strengthen decision quality, not simply automate tasks.

Build governance before risk becomes visible. Responsible AI requires documentation, accountability, and oversight before deployment expands.

Make readiness measurable. Organizations need a repeatable method for assessing readiness over time, not a one-time checklist.

Conclusion

Artificial intelligence has intensified the need for organizations to understand themselves before transforming themselves. The literature reviewed in this paper demonstrates that successful implementation depends upon readiness conditions that are often invisible in traditional planning documents. Roadmaps remain useful, but they are incomplete without a disciplined understanding of the organizational ground beneath them.

Groundmaps provide that foundation. They connect organizational change, technology adoption, readiness, digital transformation, dynamic capabilities, and responsible AI governance into a practical pre-implementation logic. Before leaders chart the future with AI, they must first understand the ground beneath their strategy.

References

- Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. W. W. Norton.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- International Organization for Standardization. (2023). *ISO/IEC 42001:2023 Artificial intelligence management system*.
- Kotter, J. P. (1996). *Leading change*. Harvard Business School Press.
- Lewin, K. (1947). Frontiers in group dynamics: Concept, method and reality in social science; social equilibria and social change. *Human Relations*, 1(1), 5-41.
- Meador, M. (2026). *Roadmaps vs. Groundmaps: Why AI Changes Strategic Planning* (Learning AI Institute Research Insight Series No. LAI-RIS-001). Learning AI Institute & MetHer By Design, LLC.
<https://learningaiinstitute.org/>.
- National Institute of Standards and Technology. (2023). *Artificial intelligence risk management framework (AI RMF 1.0)*. U.S. Department of Commerce.
- Organisation for Economic Co-operation and Development. (2019). *OECD principles on artificial intelligence*.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.
- Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. Doubleday.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Tornatzky, L. G., & Fleischer, M. (1990). *The processes of technological innovation*. Lexington Books.
- UNESCO. (2021). *Recommendation on the ethics of artificial intelligence*.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478.
- Weiner, B. J. (2009). A theory of organizational readiness for change. *Implementation Science*, 4, Article 67.
- Westerman, G., Bonnet, D., & McAfee, A. (2014). *Leading digital: Turning technology into business transformation*. Harvard Business Review Press.

About the Organizations

Learning AI Institute

Learning AI Institute advances research, education, and organizational capability in artificial intelligence through evidence-informed frameworks, executive education, and applied research.

learningaiinstitute.org

MetHer By Design, LLC

MetHer By Design partners with organizations to strengthen AI readiness, governance, workforce capability, and strategic implementation through consulting, executive advisory services, and the LAIR Framework.

methherbydesign.com