Chapter 7: Building AI Fluency

"If your people are not ready for AI, your business is not either."

As AI initiatives mature from proof of concept to scaled operations, one of the most cited barriers to success is not data or technology, it is people. Specifically, a lack of AI fluency across roles, functions, and leadership levels. From warehouse technicians to senior executives, everyone needs to understand how AI changes their workflows, decisions, and value creation responsibilities.

This chapter explores what it means to build AI fluency, how to tailor learning paths for different audiences, and why organizational upskilling must be both inclusive and intentional.

Drawing inspiration from **Stephen Covey's** (Covey 2004) principle-centered leadership, AI fluency must start with mindset before method. Covey's habit of "Sharpening the Saw" (Habit #7) reminds us that continuous learning is not a luxury. It is a necessity. In the AI era, sharpening the **AI Saw** means cultivating curiosity, building awareness of emerging technologies, and encouraging individuals at every level to challenge their assumptions. Upskilling is not just about technical know-how; it is about developing proactive habits, ethical grounding, and adaptability that allow individuals to thrive alongside intelligent machines and systems.

There is often confusion between AI literacy and AI fluency. Data scientists have long been seen as technically adept but "lacking business acumen." I would argue that this was less of a shortcoming of the data scientists, and more a failure of business leaders to understand the language of analytics. Today, AI literacy is widely accessible through

videos, podcasts, and online courses. But literacy only gets you so far. Fluency is the practical ability to apply AI in context, understanding when, where, and why it is valuable.

The Big Problem

Have you ever taken a class on how to cut vegetables? Why do knife skills matter? Why do brands like Sheffield, Wüsthof, or Misono hold such high value?

Because knowledge about the right tool can turn food preparation into a work of art. Knives used incorrectly can still cause injury. Understanding how to use AI tools is only one part of the equation. True AI fluency means applying them responsibly, verifying outputs, understanding business impacts, and questioning how models are trained.

If you have trained yourself in basic knife techniques to cut safely and precisely. That is AI literacy. However, access to tools does not equal fluency. AI fluency is more nuanced. It is knowing which knife to use: a paring knife to peel an apple or a bread knife to slice a loaf. Fluency brings confidence and awareness about tool application and its **intentional use.**

Table 1: AI Literacy vs. AI Fluency

Dimension	AI LITERACY	AI FLUENCY
Definition	Foundational awareness of what AI is, how it works in principle, and where it is applied	Practical ability to apply AI knowledge in context to make better decisions that improve workflows
Cognitive Depth	Recognition, recall, and comprehension of key AI terms, risks, and categories	Application, synthesis, and judgement in AI-supported tasks and strategic impact in AI-generated insights
Learning Objective	Understand the terminology, capabilities, risks, and societal impact of AI	Use AI tools, interpret results, integrate outputs, and make decisions grounded in AI generated insights
Comparable To	Reading AI-related content and engaging in informed conversation	Speaking and collaborating fluently using AI as a business enabler
Audience	General staff, risk and compliance teams, operations, policy stakeholders	Product owners, functional leaders, strategy, marketing, analytics teams
Typical Roles	Customer service, HR generalist, project managers, early-stage learners	Business analysts, marketing leads, data-savvy executives, transformation leads
Training Focus	What is AI, where it fits, basic risks and ethical implications	How to frame AI use cases, evaluate model performances, and collaborate with technical partners
Content Format	Awareness videos, gamified learning, 101 workshops, simulation of basic prompts and their outcomes	Can use or apply AI tools for insight generation, flagging anomalies, supporting professional productivity or quality
Use of Tools	Understands and awareness about the different AI tools, features and general context of use	Applies responsible AI practices within role: verifying outputs, understanding business impacts, questioning training

The above table summarizes different dimensions of AI fluency.

Capability Gaps and Cultural Resistance

Many organizations assume that introducing AI tools will naturally drive productivity. However, tooling without training only breeds frustration and underutilization. Without a plan for upskilling, organizations face an AI fluency gap: where strategy outpaced execution. This results in failed deployments, disengaged teams, and limited innovation.

Closing the AI fluency gap starts with tailored learning, delivered in context, not just in courses.

This reflection exposes a harsh truth: the bottleneck to innovation is not always technical capability; it is leadership capacity. If leaders remain stuck in old decision cycles, AI becomes a wasted investment. The leaders who thrive will be those who embrace transparency, accountability, and experimentation, not just control. AI fluency builds awareness and perspectives for leaders to manage the most valuable resources, the people.

Without intentional upskilling around AI fluency:

- Frontline users resist adoption.
- Middle managers misinterpret or misunderstand model outputs.
- Executives fail to link AI insights to business goals.
- Responsible AI governance is an afterthought.

Despite the growing availability of self-service tools and automation, human understanding remains central to responsible AI use.

> *"AI is not the easy button—it's complexity is disguised under a simple interface of GenAI. "*
>
> ***- Leadership Compass***

Strategic Insight: Tailor AI Learning Paths

AI fluency skills do not map to a checklist that can be completed with a course. Upskilling must be role-based, outcome-aligned, and embedded into daily workflows. Organizations seeking to close the AI fluency gap need to start with tailored learning, delivered in context, not just in courses. Here are eight best practices recommended by Dataiku based on Dataiku's "8 Steps for Leaders to Drive AI Literacy Success (Grasso 2025):

- Secure executive sponsorship
- Build a diverse team
- Perform assessments
- Define role-specific objectives

- Develop tailored content
- Track meaningful metrics
- Democratize access with governance
- Foster a culture of continuous learning

Across industries, leaders are embedding AI learning into workflows to drive both adoption and innovation by nurturing all around AI fluency.

Use Cases

Merchandisers: H&M (Marr 2018) integrated merchandisers in the algorithm development process to ensure AI models reflected fashion intuition and in-market relevance. This co-creation led to better adoption and created internal AI champions.

Healthcare Systems: Healthcare systems like Stanford Medicine (Floor Schuur 2021) introduced upskilling programs for medical coders and radiologists to interpret and validate AI-generated suggestions for patient charts and scans.

Distribution: Logistics and warehouse operations at Amazon Shreveport (Infra.com 2025), Louisiana, fulfillment center, use "AI shadowing" with new recruits. The facility employs over 750,000 mobile robots and tens of thousands of robotic arms to enhance efficiency and reduce delivery times. Despite the high level of automation, Amazon emphasizes the collaborative nature of its operations, where human workers and AI-powered machines work in tandem to optimize warehouse processes.

Lesson: AI fluency empowers leaders to guide co-design, co-creation, and co-innovation with HITL. As we discussed in Chapter 6, human-in-the-loop design requires more than workflow changes. It demands fluency at every level of the organization

Executive Reflection

Upskilling your teams is not a one-time project. It is an ongoing essential need. As you assess your readiness to scale AI, ask:

1. Have you mapped what AI fluency looks like for each role in our organization?
2. Is your current learning strategy designed to evolve with the AI maturity of our teams?
3. Do your leaders visibly model continuous AI learning?
4. Are you measuring applied fluency or just course completions?

Call to Action: Build AI Literacy Sprints

Identify 3 core AI skills needed in your department:

- Define the learning outcomes.
- Map a 3-week sprint with resources.
- Assign metrics (e.g., project pitch, post-training quiz).
- Identify 1–2 cultural blockers and plan mitigations.

Summary

As AI adoption expands, organizations must prioritize role-specific AI fluency. One-size-fits-all training models fail to prepare people for real-world interactions with intelligent systems. Upskilling must be iterative, governed, and embedded within both strategy and culture.

Lessons Learned

- AI fluency is a business enabler, not just a technical skill.
- Co-designing learning programs with business users increases relevance and adoption.
- AI literacy is a leadership imperative—leaders must model, sponsor, and participate in it.
- Measurable fluency drives responsible use, better decisions, and sustainable scale.

TRI-LINGUAL FLUENCY