



Applying AI in L&D

From Platforms to
Performance

Josh Cavalier, CEO
JoshCavalier.ai

The coffee that changed my career.



Performance is our Product



L&D's Evolution

From content makers →
performance system designers



New Role Defined

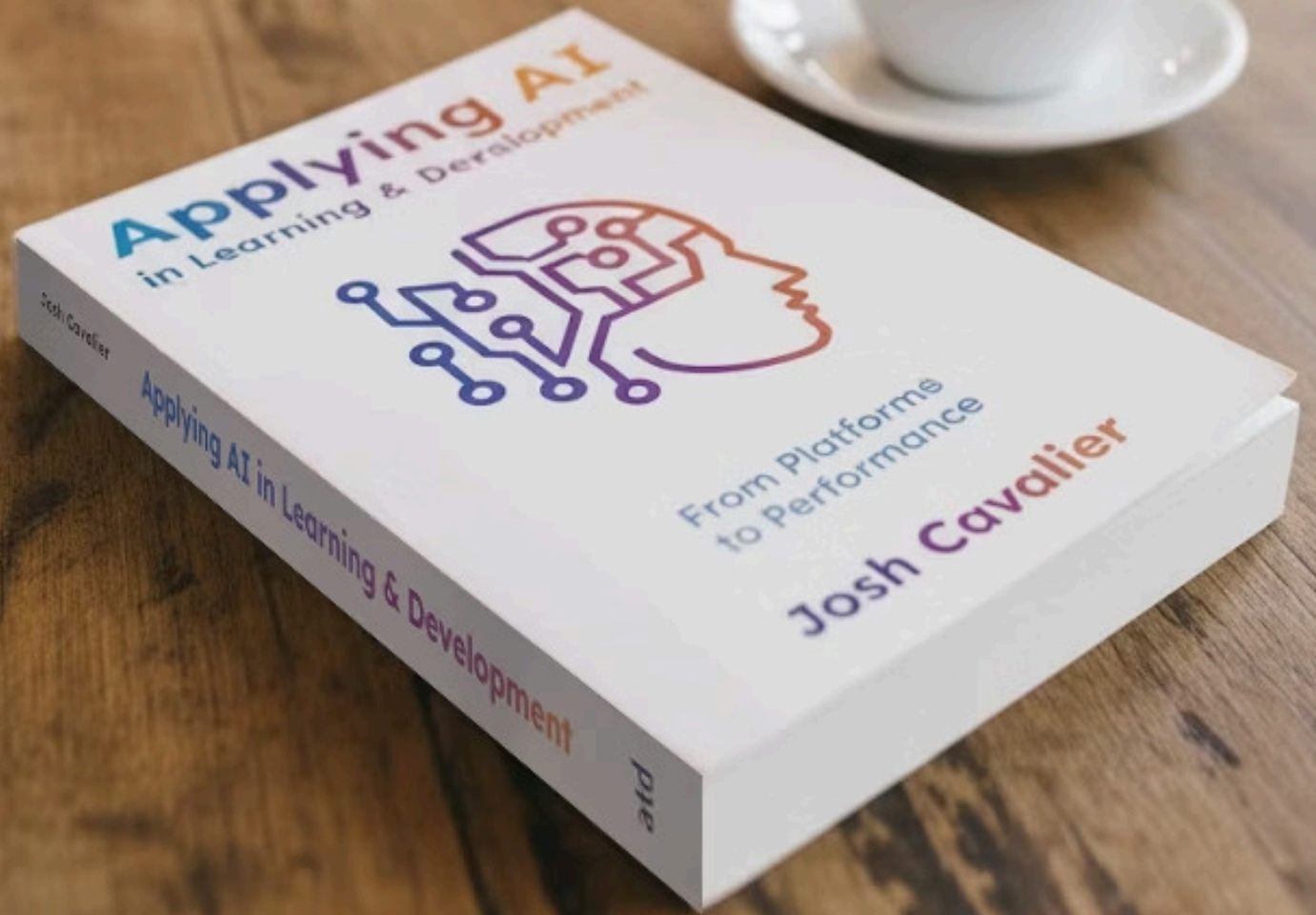
Human–Machine Performance Analyst
(humans + AI)

What We Stop

Content-first delivery focused solely on course
creation and completion metrics

What We Start

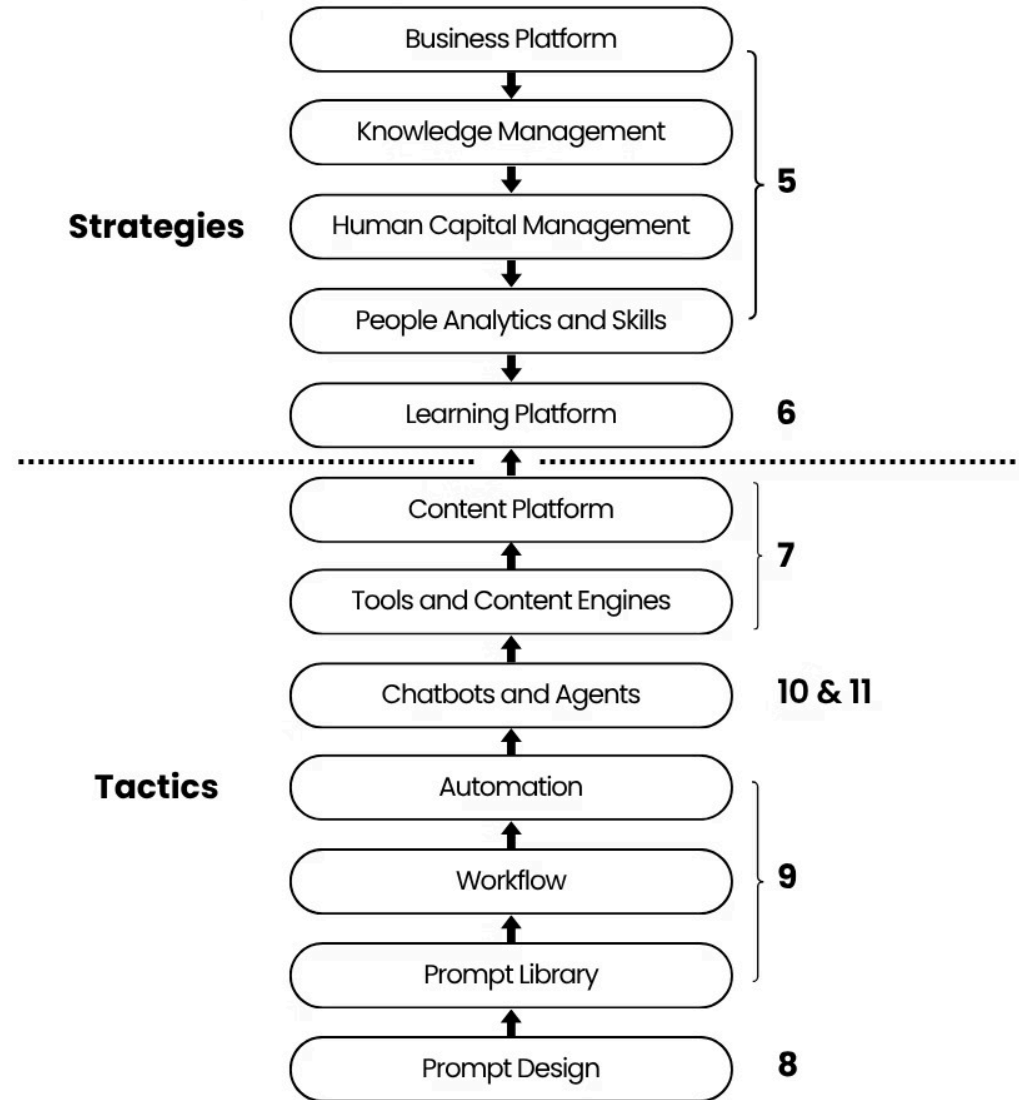
KPI-first orchestration that measures real
business impact and behavior change



Chapter Overview

Build the Foundation

1. What You Need to Know About AI
2. The Rise of the Human-Machine Performance Analyst
3. The AI Strategy for Learning and Development
4. Privacy, Security, Ethics, and Governance



Chapter 1:

What You Need to Know About AI

“AI will fundamentally reimagine how we approach human learning and performance.”

— Chapter 1, page 9.

Foundation: AI & GenAI — What Actually Matters



Quality Formula

Instructions + context + examples + evaluation = exceptional output



Retrieval Power

Connects your organizational knowledge to specific, actionable tasks



Structured Design

Tables, JSON, rubrics speed review and ensure consistency



Chapter 2:

The Rise of the Human-Machine Performance Analyst

“The near-term future of L&D isn’t about replacing our human expertise with artificial intelligence. Instead, it’s about amplifying our capabilities, freeing us from routine tasks to focus on what matters most: understanding human potential and creating environments where people and machines can thrive.”

— Chapter 2, page 30.



Foundation: Position Yourself for the AI Era



Own Learning Strategy & Outcomes

Link programs directly to business KPIs.



Master Human+AI Design

Focus on prompt craft, content curation, and personalization.



Build Data Literacy

Effectively measure impact and run experiments.



Strengthen Facilitation & Coaching

Lead effective behavior change initiatives.



Lead Ethics & Governance

Ensure fairness, transparency, and trust in AI applications.

Chapter 3:

The AI Strategy for Learning and Development

“Remember: Building a solid foundation for AI isn’t about having all the answers; it’s about asking the right questions and creating space for thoughtful implementation.”

— Chapter 3, page 59.



Foundation: The Role of L&D Is Evolving

01

Workflow-First Mindset

Shift from courses-first to workflow-first performance support that meets learners at the moment of need

02

Critical New Skills

Prompt craft, data literacy, process design, and rigorous evaluation frameworks

03

Product Team Operations

Adopt agile practices: backlog management, sprints, telemetry, and continuous improvement

TRIVIA



1980's Trivia:

Marty McFly needs 1.21 gigawatts and exactly 88 mph to time-jump in *Back to the Future*. Everyone knows that.

But when he first uses the DeLorean's time circuits in 1985, what specific date does Doc call “a red-letter date in the history of science”



November 5, 1955



Chapter 4:

Privacy, Security, Ethics, and Governance

Foundation: Privacy, Security, Ethics

Data Governance

Implement clear data classification, consent protocols, and retention policies

Quality Controls

Regular bias checks, transparency requirements, and mandatory human oversight

MYTH

'AI replaces SMEs and eliminates the need for expert involvement'

FACT

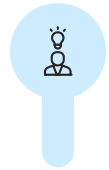
'AI amplifies SMEs; L&D curates, evaluates, and ensures quality at scale'

Chapter 5:

Business Platforms and Performance

Four Strategy Lenses

Choose the strategic lever that aligns with your organization's current priorities and maturity level.



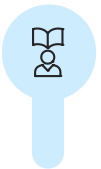
Business Platform



Knowledge Management



Human Capital Management (People Analytics & Skills)



Learning Platform



Strategy: Business Platform

KPI Connection

Directly tie learning initiatives to revenue, quality, safety, or customer experience metrics

Transformation Story

Before: Point solution content

After: Performance workflow with real-time telemetry

Define 'Done'

Measurable behavior change and quantifiable KPI delta—not just completion rates



Strategy: Human Capital Management



Role Clarity

Define roles, responsibilities, and skill taxonomies to enable precise targeting and personalization



Task-Skill Mapping

Map specific tasks to required skills and align everything to measurable performance outcomes



AI-Powered Practice

Use AI to draft role-specific practice scenarios and personalized coaching interventions

Chapter 6:

AI-Enabled Learning Platforms

Strategy: Learning Platform

Intelligent Personalization

Deliver content tailored by role, skill gaps, and real-time context to maximize relevance



Integrated Ecosystem

Build cohesive pathways that integrate authoring, delivery, and evaluation while capturing data for continuous insights



TRIVIA



1990's Trivia:

James Cameron's Titanic famously tied the all-time Oscars record.

How many Academy Awards did it win—and which earlier epic did it tie?



11 Oscars
Tied with Ben-Hur
(1959)



Chapter 7:

Content

Development

Powered by AI

Guardrails: Five Non-Negotiables

1

Data Protection

Data classification and explicit consent; never expose sensitive data in unsafe contexts

2

Bias & Transparency

Regular bias audits and transparent sourcing; cite and attribute all AI-generated content

3

Human Oversight

Mandatory human review for critical decisions and anything affecting learner safety

4

Audit Trails

Complete logs of who prompted what, when, and with which content or context

5

Update Schedule

Defined sunset and refresh cycles for prompts, agents, and context packs

Chapter 8:

Prompt Design

Tactics: Prompt Design (Your 3-Part Template)

1. Role & Audience

Who is the AI assistant and who is the learner? Set context and expertise level.

2. Task & Constraints

The performance goal, necessary context, boundaries, and critical guardrails.

3. Output Format

Structured rubric, table, or JSON for quick, consistent review and evaluation.



Pro Tip: Well-structured prompts reduce review time by 60% and dramatically improve output consistency.

Tactics: Prompt Library = Your New Style Guide

Organize for Reuse

Tag every prompt by use case, role, and maturity level. Include concrete examples and documented failure modes.

Build In Quality

Standardize rubric-based evaluation criteria inside each prompt template to ensure consistency.

Track Performance

Version all prompts and capture key metrics: acceptance rate, edit time, and user satisfaction.



Chapter 9:

**AI Learning
Workflows and
Automation**



Tactics: Workflow & Automation



Strategic Gates

Chain automated steps with human review gates where judgment matters most



Self-Evaluation

Deploy evaluation prompts and rubrics so outputs self-check before human review



Close the Loop

Publish to your platform and route all feedback into your improvement backlog

TRIVIA



2000's Trivia:

**At the 2007 Apple keynote,
Steve Jobs teased the crowd
with “three things”:**

**an _____ ,
a _____ , and an _____ .**

**Then revealed they were all
one device: the iPhone.**



**an iPod,
a phone,
and an Internet
communicator**



Chapter 10:

Autonomous Agents

Chapter 11:

Conversational AI

Tactics: Chatbots & Agents



Front-of-House Chatbot

Provides learners with instant answers, personalized guidance, and intelligent routing to the right resources.



Back-Office Agent

Handles content prep, metadata tagging, format conversion, and initial QA—freeing L&D for strategic work.

❏ **Critical:** Always design clear escalation paths and handoff protocols to human experts for edge cases and complex situations.

TRIVIA



2010's Trivia:

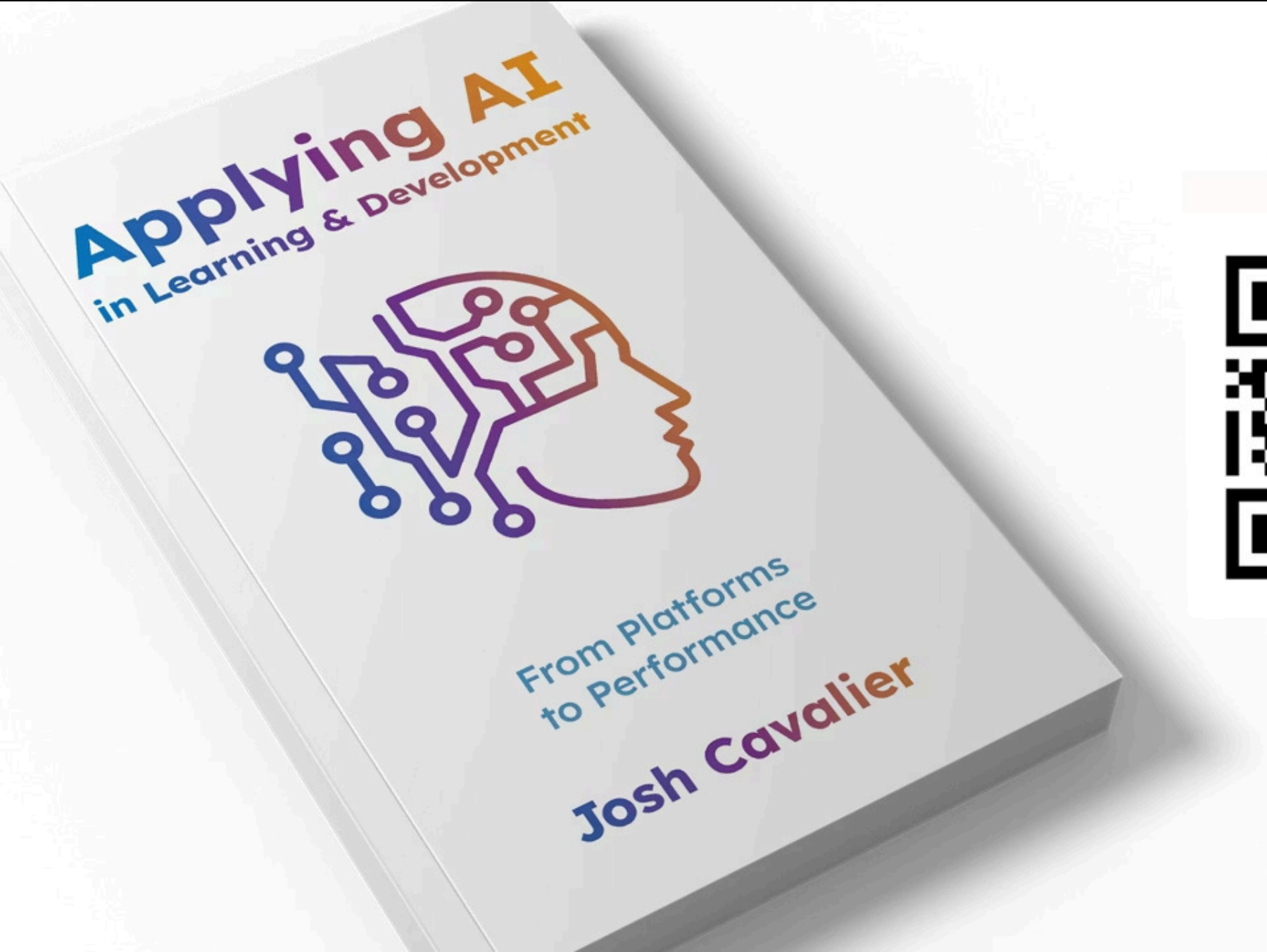
PSY's "Gangnam Style" kicked off YouTube's billion-view club in 2012.

Which music video first dethroned "Gangnam Style" as the platform's most-viewed video, and in what year did that happen?



**"See You Again"
(Wiz Khalifa ft.
Charlie Puth)
in 2017**





amazon





Illustrations

Chapter 10: What You Need to Know

AI Agent
Autonomous agents are advanced AI systems that understand, respond, and act without human input.

Automation vs AI Agent

Factor	Automation	AI Agent
Trigger	New employee joins (event-based)	Still mastery goal (objective driven)
Action	Executes predefined onboarding steps	Chooses personalized learning pathways
Decision making	Conditional logic; limited flexibility	Adaptive reasoning; highly flexible
Learning and Improvement	Does not learn or adapt independently	Learns, adapts, and improves continuously

Key Metrics and Questions

- Workflow completion rates.** How often does the agent complete the entire process?
- Decision quality.** Are the agent's choices aligned with what an expert would do?
- Resource allocation efficiency.** Is the agent selecting appropriate resources without waste?
- Learner progression.** Are learners advancing through paths the agent creates?

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Key Concepts

Mapping an Existing Workflow to an AI Agent

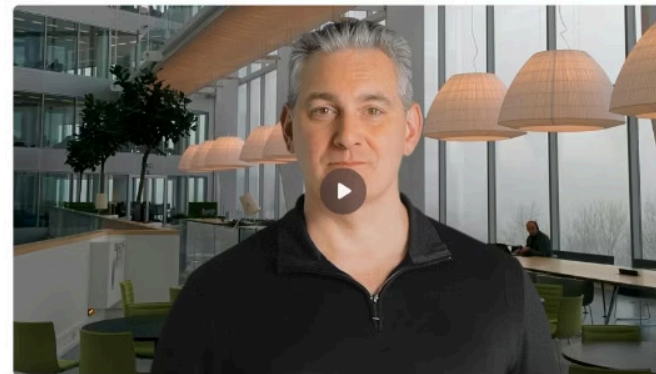
Step 4: Agent workflow design
Create a new workflow outline that clearly shows how an AI agent would navigate these steps differently. Specifically, highlight answers to these questions:

- What input would trigger agent interaction?
- Which tools or data sources would the agent access?
- How would memory (past learner interactions) influence the agent's response?
- What personalized outputs could the agent provide?

AI Prompt:
Act as an AI workflow architect. I will describe one of our existing L&D workflows and how it currently operates. Help me identify points where an AI agent could enhance adaptability or personalization. Then, suggest how the workflow could be redesigned to integrate the agent, including key inputs, decision logic, memory use, and personalized outputs.

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Exercises



Chapter Overview