Brandon Hall Group™

The Age of Augmentation is Here.
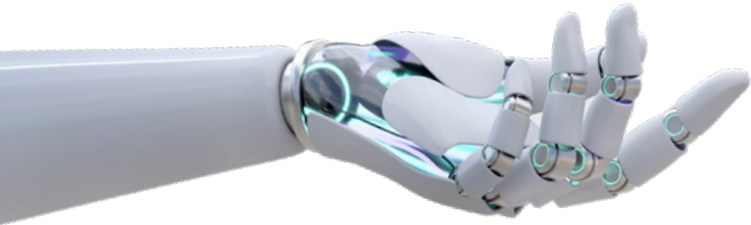
# Powered by AI.

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# AI is Rewriting the Rules for Learning and Development

We're witnessing the lightning-fast transformation of how training and development happens in the workplace. AI is rewriting the rules for creating, delivering, and measuring learning experiences. This shift brings with it excitement, and a fair amount of hand wringing.

Right now, nearly two-thirds of professionals believe AI will dramatically change learning design and delivery in the next two years, according to Brandon Hall Group™ research. Meanwhile (and here's the hand wringing part) less than 10% of learning professionals truly understand AI — and a whopping 33% of organizations aren't using AI for learning at all. As in zip.
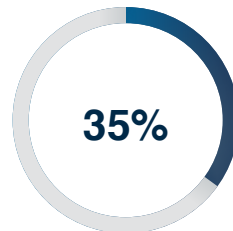
Use of AI in Learning

64%
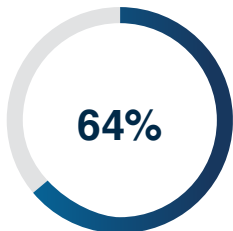
Believe AI will dramatically change learning in the next two years

35%
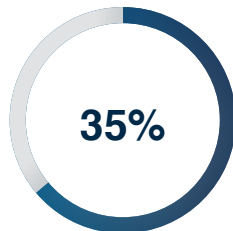
Use AI to create training materials

35%

Use AI for personalized learning recommendations

33%
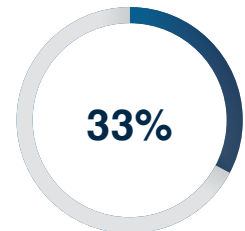
Aren't using AI for learning at all

Source: Brandon Hall Group™ study, The Learning Revolution

You might already be part of the organizations using AI, or perhaps you're in the third that hasn't yet dipped their toes into the AI waters. Wherever you stand, one thing is clear: we're at the start of a learning revolution. The question is, are you ready to lead it?

This ebook is for organizations leading the charge in transforming organizational learning. We explore emerging AI technologies in L&D, showing how they can address current limitations and propel the industry forward – empowering you to shape the future workplace.

The AI Conundrum: Solving Today's L&D Challenges

AI promises a lot, but let's be honest – you're likely feeling stuck between the hype and the hard reality of making AI work for you.
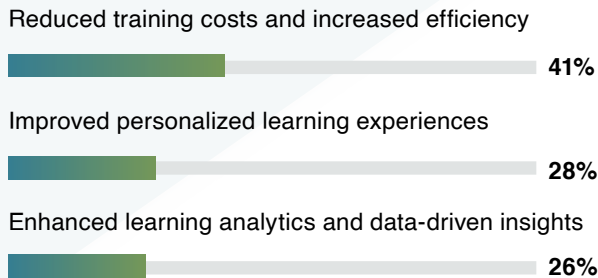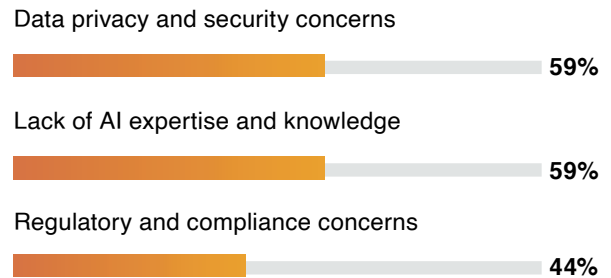
While there's significant buzz around AI's potential, the reality of its implementation tells a very different story. Research shows that while the benefits of incorporating AI technology in learning are becoming apparent, there are significant barriers to adoption:

Benefits of Incorporating AI

Reduced training costs and increased efficiency

41%

Improved personalized learning experiences

28%

Enhanced learning analytics and data-driven insights

26%

Barriers to AI Adoption

Data privacy and security concerns

59%

Lack of AI expertise and knowledge

59%

Regulatory and compliance concerns

44%

Source: Brandon Hall Group™ study, The Learning Revolution

These numbers paint a picture of an industry on the cusp of transformation yet grappling with the practicalities of implementation.

The research also shows that almost half (45%) of HR organizations are not involved in shaping the organization's generative AI strategy (How HR Collaborates on Employee Experience Study, by Brandon Hall Group™).

For a function that has been seeking "a seat at the table" for decades, HR must be on the ground floor: shaping what is likely the most profound development of our lifetime.

The Rollercoaster of AI Adoption in L&D

AI didn't quite solve all our L&D challenges overnight, and reality has set in. The sugar-high is fading, and we're grappling with AI's current limitations.

The adoption of AI in L&D follows a familiar pattern seen with many emerging technologies. Initially, there's a surge of excitement and inflated expectations about the potential. A period of disappointment is typical as early implementations fail to live up to the hype. Currently, we find ourselves in this "disillusionment" phase. If you are using AI, you're likely experiencing the following challenges:

Common Challenges

Limited context-rich content creation

Current AI tools often fall short when it comes to company-specific training needs — for example, specialized contexts, such as standard operating procedures or product-specific training.

Dealing with 'dirty' data

The effectiveness of AI-generated content is heavily dependent on the quality of data. Many companies struggle with "dirty data" - information that is inaccurate, incomplete, or inconsistent. This can result in content that is flawed or irrelevant.

Balancing speed, quality

While some solution providers have prioritized speed in releasing AI products, there's a risk of compromising on quality and effectiveness.

Addressing ethical concerns and governance

Implementing AI raises important ethical questions around data privacy, algorithmic bias, and responsible use.

Overcoming resistance and skepticism

People may resist the adoption of AI due to concerns about job security or skepticism about its effectiveness.

Challenges integrating with existing systems

Incorporating AI into established L&D processes and technologies can be complex and resource intensive.

Technical implementation difficulties

37% of organizations surveyed by Brandon Hall Group™ cite technical complexity and implementation challenges as a barrier to AI adoption.

Uncertainty about ROI

24% of organizations surveyed by Brandon Hall Group™ are uncertain about the ROI and business impact of AI in L&D.

Lack of AI expertise

70% of HR departments surveyed by Brandon Hall Group™ report that they don't have the right skill set for GenAI and will need to develop it.

Sources: Brandon Hall Group™ studies, How Generative AI Will Revolutionize HR; How to Build AI Expertise and Knowledge in L&D; The Learning Revolution

These challenges present a tough choice. If you don't adopt AI, you risk falling behind. But if you navigate this transition successfully, you'll create realistic, practical applications of AI in L&D. It's a high-stakes game, but one that could revolutionize your L&D efforts.

Imagining the Future

Despite the hurdles, the potential of AI in L&D is truly exciting. Imagine a future where AI analyzes each employee's needs and creates custom learning paths. Picture a system that constantly assesses skills across your organization, spotting gaps and suggesting targeted training in real time.

In this future, your learning content is always fresh, updated instantly by AI to keep pace with your rapidly changing industry. Your employees have 24/7 support from AI-powered assistants that answer questions and guide their learning journey.

But it doesn't stop there. AI could help you future-proof your workforce by predicting skill needs before they become urgent. You could offer lifelike training simulations powered by advanced AI, allowing your team to practice complex skills in a safe environment.

And here's a bonus: AI handles the routine tasks, freeing you to focus on strategy and high-impact activities. This isn't just about better training – it's about boosting your entire organization's performance.
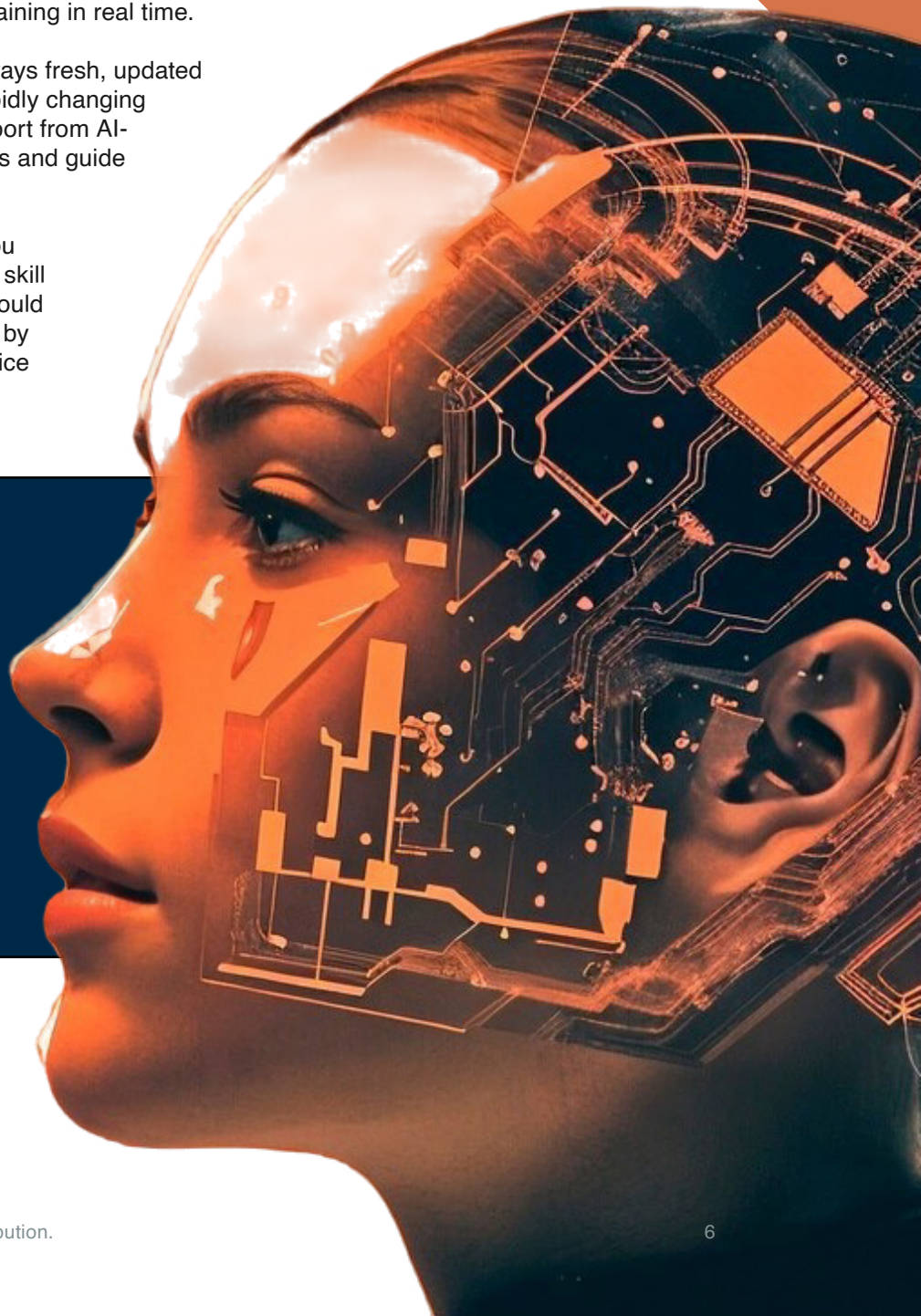
Your AI Toolkit:

Technologies That Make It Happen
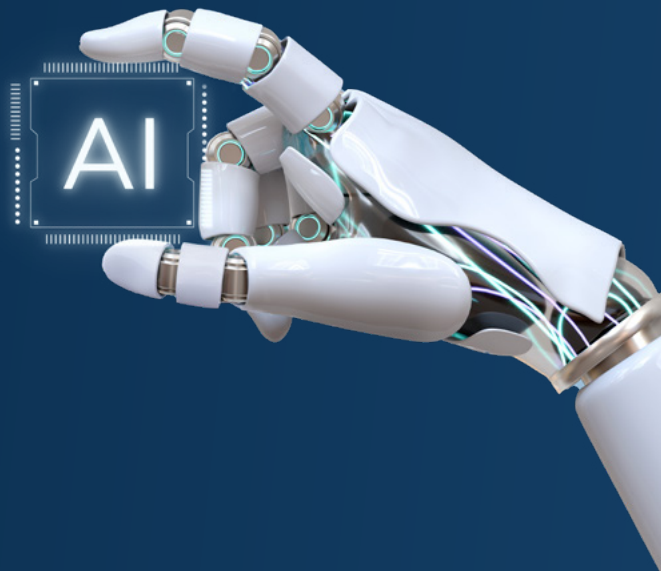
To reach this future, you need to understand a few key AI technologies:

- Model-agnostic architecture
- Retrieval Augmented Generation (RAG)
- Human-in-the-loop practices
- Expert advantage techniques

Let's break these down:

Model-Agnostic Architecture

1

When selecting AI tools for L&D, it's crucial to be aware of the limitations of solutions that rely on a single Large Language Model (LLM). Instead, favor tools with model-agnostic architecture, which offer several advantages:

Flexibility

Model-agnostic tools can integrate and switch between different language models from various providers. This flexibility ensures your L&D solutions stay at the forefront of AI technology, adapting to the best available options as they emerge.

Enhanced Customization

Tools not tied to a single LLM provider can leverage the strengths of multiple models. This results in more robust and versatile learning solutions that can better align with your organization's evolving needs.

Future-Proofing

A model-agnostic approach allows for the incorporation of new advancements in language models as they emerge. This helps future-proof your L&D technology stack, ensuring access to cutting-edge solutions.

Optimized Performance

Model-agnostic tools can select the most suitable LLMs for specific tasks, balancing performance, accuracy, and efficiency to deliver the best possible outcomes for learners.

Increased Reliability

By not depending on a single LLM provider, model-agnostic tools enhance the reliability and continuity of your L&D services.

By choosing tools with model-agnostic architecture, L&D teams can ensure their AI investments remain agile and effective in a rapidly evolving technological landscape. This aligns with the broader need for HR to take a lead role in shaping AI strategies within organizations, ensuring that the implementation of AI is both flexible and responsive to the workforce's needs.

2 Retrieval Augmented Generation (RAG)

Retrieval Augmented Generation (RAG) is a groundbreaking innovation in natural language processing — and a real game-changer for L&D. It's like giving your AI a vast, organized library of your organization's knowledge. When the AI creates content, it doesn't just use its general training, it pulls relevant information from this library.

This approach can dramatically improve accuracy, reducing errors and those convincing but incorrect statements AI sometimes makes. It also supercharges content relevance, creating materials that speak directly to your organization's unique context, processes, and culture. As your organization evolves, you can easily update the AI's knowledge base, ensuring your learning content stays current and aligned with your latest practices.

Enhanced Accuracy

RAG adds context and factual accuracy to AI-generated content, significantly reducing the likelihood of AI hallucinations.

Improved Content Relevance

By incorporating relevant resources and context, RAG enables the creation of more pertinent and tailored learning materials.

Knowledge Integration

RAG allows the integration of organizational knowledge into AI systems, ensuring that generated content aligns with company-specific information and practices.

One practical application of RAG-like techniques in L&D is the use of private data for course creation. This process involves:

- ✦ Breaking down large documents (e.g., PDFs) into smaller chunks.
- ✦ Using AI to tag these chunks with relevant topics.
- ✦ Storing these tagged chunks in a separate database.
- ✦ When creating course content, the AI pulls together the relevant chunks to build each section, ensuring the content is based on the organization's proprietary information rather than general internet data.

This approach allows organizations to transform their existing documentation into engaging, AI-generated courses while maintaining the integrity and specificity of their internal knowledge.

Human-in-the-Loop Practices

Human-in-the-loop practices keep people involved in AI processes. Experts review AI outputs for quality, add context AI might miss, oversee ethical considerations, and provide continuous feedback to improve AI over time. This ensures all AI outputs are validated, refined, and aligned with organizational needs.

How it Works

Quality Assurance

Human experts review and validate AI-generated content, ensuring accuracy and relevance.

Contextual Understanding

Humans provide nuanced understanding and interpretation that AI may miss, especially in complex or specialized topics.

Ethical Oversight

Human involvement helps navigate ethical considerations and potential biases in AI-generated content.

Continuous Improvement

Feedback from human experts can be used to refine and improve AI models over time.

4 The Expert Advantage

The concept of the "expert advantage" highlights how domain experts can leverage AI tools more effectively due to their contextual knowledge. Subject matter experts can supercharge AI by writing better prompts, critically assessing AI-generated content, finding innovative ways to use AI in your L&D programs, and combining AI insights with human experience.

Enhanced Prompting

Leveraging their deep subject knowledge, experts can craft precise, context-rich prompts that reflect human-driven best practices.

Innovative Applications

Domain knowledge allows experts to identify unique and valuable applications of AI in their specific L&D contexts.

Bridging AI and Human Insight

Experts can effectively combine AI-generated insights with their own experience and intuition, leading to more comprehensive and nuanced learning solutions.

Critical Evaluation

Experts can more effectively evaluate and refine AI-generated content, leveraging their in-depth knowledge to identify nuances and improvements that might elude less experienced designers.

In practice, AI can be used to generate a significant portion (up to 80%) of a course quickly, allowing subject matter experts to then refine, personalize, and perfect the content. This approach capitalizes on both the efficiency of AI and the irreplaceable value of human expertise.

Beware of Dirty Data

We've explored four key AI approaches that will power L&D. But in this AI-powered world, your data is the foundation of everything. If you're sitting on a mountain of "dirty" data that's inaccurate, outdated, or poorly organized, your results will be disappointing. Your AI might generate training content that's irrelevant to your current business needs. That's why a robust knowledge management strategy is crucial. By cleaning up your existing data and keeping it current, you'll ensure your AI can generate learning content that's accurate, relevant, and truly valuable to your employees.

Balancing AI and Human Touch: L&D's New Era

AI is fundamentally changing L&D. It's challenging, but the rewards are huge – from personalized learning experiences to more efficient content creation.

By embracing emerging technologies like model-agnostic architectures, RAG, and human-in-the-loop practices, and by leveraging the expert advantage, L&D professionals can navigate this transformation successfully. The future of L&D lies in striking the right balance between AI capabilities and human expertise, creating learning experiences that are more personalized, efficient, and impactful than ever before.

The Road Ahead: Professional Implications

As AI continues to reshape the L&D landscape, there are implications for all professionals in the field:

Content Curation and Contextualization:

While AI can generate content, L&D professionals will play a crucial role in ensuring its relevance and alignment with organizational needs.

Skill Development:

L&D professionals must develop AI literacy, data analysis skills, and an understanding of AI ethics. There's also a growing emphasis on developing "human power skills" such as creativity, emotional intelligence, critical thinking, and adaptability.

Strategic Thinking:

The focus will shift toward leveraging AI for strategic learning initiatives aligned with business objectives.

Innovative Learning Design:

L&D professionals will need to reimagine learning design, creating new ways to develop training that leverages AI while keeping the human touch.

Cross-Functional Collaboration:

Increased collaboration with IT, data science, and other departments will be necessary for effective AI implementation.

Ethical AI Leadership:

L&D teams will need to champion ethical AI use, addressing issues of bias, privacy, and transparency.

Continuous Learning:

Given the rapid pace of AI advancement, L&D professionals must commit to ongoing learning and experimentation with new technologies.

Governance:

L&D teams will need to focus on establishing formal review processes, creating cross-functional governance committees, and implementing clear procedures to ensure responsible AI adoption and oversight.

While AI has generated significant excitement in the L&D field, there's a noticeable gap between the buzz surrounding AI and its actual implementation in organizations. As we've seen, many L&D teams are still in the early stages of AI adoption, grappling with challenges, including the need for specialized expertise. As AI technologies mature and L&D professionals become more adept at leveraging these tools, we're likely to see more sophisticated and effective implementations.

Getting Started

Start by learning AI basics and sharpen your data skills so you can effectively use AI insights. Keep learning about the latest in AI and how it applies to L&D. Team up across departments to implement AI effectively and lead the charge in using AI responsibly in your organization.

By building these skills and adopting these strategies, you'll become a valuable leader in the AI-driven future of learning.

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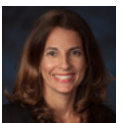
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About Brandon Hall Group™

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