Properly approach
artificial intelligence's
potential within
talent development.

The path
to AI

BY JD DILLON

Do you want better traffic lights, or do you want autonomous, self-driving cars?

That's the kind of dilemma the talent development function must face when it comes to applying artificial intelligence to helping people do their best work every day and enabling organizations to achieve business goals.

The conversation around AI within TD is accelerating. Technology providers are introducing AI-enabled capabilities within their applications, and TD professionals are beginning to work with open-source AI tools, such as Google's TensorFlow and the Microsoft Cognitive Toolkit. However, the industry has more questions than answers, chief among them being "Can AI really make a positive impact on organizational learning?"

To answer that question, TD professionals need to decide whether they will jump into finding a killer app (in other words, a high-impact, full-proof AI use case) or first take a breath and reflect on how AI compares to other technologies that have redefined our industry. Before selecting the path you believe will lead to your intended future destination, consider how previous decisions have helped you arrive where you are right now.

(Mis)steps of the past

In the 1980s, it was the personal computer. In the 1990s, it was the internet. In the 2000s, it was the smartphone. Every decade seems to unveil a world-altering technology that has the potential to transform how people develop knowledge and skills. No doubt, these tools have changed the way people access, share, and apply information at work and in their personal lives. But an impact on workplace L&D has been more difficult to achieve.

Sure, plenty of organizational red tape, such as budget requirements and IT infrastructure, has stalled the industry's technological prog-

ress. The ultimate hurdle, though, has been people's static mindset—the way they perceive L&D's role at work based on their past experiences. Many people, including some who work within TD, believe learning still looks like the traditional school experience. That means people must complete structured experiences to learn something new. Regrettably, in many cases, the default TD solution largely remains the course.

For decades, this course mindset has slowed the meaningful introduction of new technologies. First, instructor-led classes were ported to e-learning. These online courses were easy to deploy quickly and at scale, but they failed to take full advantage of the digital medium. Then, courses were pushed to smartphones via rudimentary mobile learning management systems. Again, the course mindset kept TD from fully realizing the potential of advancing technologies. Still today, TD practitioners continue to struggle with the ever-growing collection of tools available within the digital workplace.

AI comes to work

AI is poised to be the next world-altering technology. While there is still plenty of work to be done to capitalize on AI's ultimate potential, the technology is already becoming a ubiquitous part of everyday life: entertainment and shopping recommendations, text message autocomplete, voice assistants, and even traffic lights. They all use AI to shape the user experience and improve productivity.

AI is changing how work gets done. For example, smart assistants can now handle the basic but annoying chore of scheduling team meetings. And in warehouses, robots algorithmically scurry about gathering products for their human counterparts to ship. Regardless of the industry, knowledge and skill requirements are changing quickly for anyone who wants to play a role in the future of work.

Research from EY shows that AI is increasing workplace operational efficiency and helping organizations make faster, smarter decisions. The generalized fear that AI will take away all human jobs may have subsided, but McKinsey research indicates that up to 50 percent of job tasks are technically automatable. *Forbes* revealed that 80 percent of CEOs see AI as a critical component of their digital transformation strategy.

TD is just one part of the organization that is proactively exploring AI's potential. In fact, it's likely that the other business units are quite far ahead, shifting rapidly from ideation to execution. That means TD will not be the team to introduce AI to the workplace, just as it was probably not the team to first leverage the internet or mobile devices. This lag potentially represents a tremendous opportunity to learn from and collaborate with partners. It also may be a threat to TD as other business-line stakeholders find new ways to improve workplace performance on their own.

Traffic lights or self-driving cars?

History should teach TD professionals that applying an established mindset to new technology is a treacherous path. AI is not just another tool in the digital workplace; it's fundamentally transforming the way people use technology to get work done.

TD risks missing the big picture if it continues to apply a course mindset and focus on AI as simply a tool to help deliver structured training. A wide range of AI-enabled TD applications are already in use within organizations, such as personalized learning experiences and smart coaches (see sidebar for more details). However, as valid as these applications may be, TD functions risk missing out on AI's overarching value if they continue to focus too intently on specific use cases.

Let's consider an example of AI currently applied to everyday life: transportation.

Some regions use AI to dynamically change traffic signals. Rather than rely on prescheduled timers, these regions use real-time data from cameras and other sensors to determine the best way to keep traffic moving efficiently and safely at any given time. *Time* reports that initial tests showed a reduction in travel time through a networked area by about 26 percent. However, while the driver experience may improve by this AI use case, the core driving experience remains the same. AI-enabled traffic signals are providing short-term gains, but autonomous, self-driving cars are largely considered to be the real future of transportation.

We cannot allow ourselves to be distracted by shiny objects or get mired in an antiquated mindset as we explore the potential for AI within workplace L&D. If we do, the most we can hope for are short-term gains from a few new, initially impressive traffic signals. Instead, we must rethink the role TD will play in the future and find both immediate and long-term applications for AI.

The route forward

AI's role in shaping TD strategy will vary by organization and evolve over time. That said, there is a common series of stops along the path that we can take to ensure we keep in mind the big picture while also maximizing AI's potential to drive lasting results.

Comprehend the future of work. TD cannot develop a future-focused strategy until we understand the impact changes in the workplace will have on the people we support. How will employee roles evolve over the next one to five years? TD should use this reality as the basis for reimagining its mindset.

Do your AI homework. TD pros do not need to become AI experts or data scientists to effectively use the technology. However, we must understand the fundamentals and recognize what will and will not be possible now and in the future. Connect with established domain experts and available resources to increase your AI knowledge so you can make informed decisions as your organization continues along its path.

Explore how AI will be applied across the organization. AI is probably already in use within most organizations—even if the TD function has not yet started thinking about it. Rather than begin this exploration in a

AI-Enabled Talent Development Applications

Artificial intelligence is defined as a machine's ability to perform cognitive functions typically associated with humans, such as perceiving, reasoning, learning, interacting, creating, and problem solving. AI commonly leverages machine learning algorithms to detect patterns and learn how to make predictions and recommendations by processing data and experiences, rather than by explicitly receiving programming instruction.

Talent development can choose from a range of existing AI-enabled applications. Here are just a few examples of what is possible today.

Personalization

AI can use data to proactively identify individual employees' knowledge and skills gaps and provide the right support to the right person at the right time at the speed and scale of a global business. This doesn't just mean pushing online courses in front of employees; it can include the full range of potential support tactics, including videos, coaching, performance support like simple job aids, or contact information for subject matter experts. According to the ATD Research report *Personalized and Adaptive Learning: Shaping Employee Development for Engagement and Performance,* AI-enabled personalized learning is expected to grow, with 52 percent of study respondents saying they plan to use adaptive learning platforms by the end of 2020.

Impact analysis

Today, marketers use an incredible amount of data to determine how digital advertising activities influence consumer buying decisions. TD can apply similar tactics to improve measurement practices and, through the application of specialized machine learning, determine how L&D solutions are (or are not) affecting targeted business goals. Use these insights to proactively adjust TD strategies.

Smart coaches

Managers aren't always watching employees do their work. Therefore, many coaching conversations are generic or misinformed. AI can support more accurate, robust coaching to promote content related to engagement, personality, and strengths. It can also fill in the gaps when a real-world manager is not available and provide timely, targeted feedback directly to employees. For example, a busy manager may receive a timely text message on her way into a meeting that reminds her to acknowledge team members' key contributions or ask questions about specific deliverables on the project they are there to discuss.

Smart assistants

AI-powered smart assistants work proactively alongside employees, providing guidance and coaching whenever needed but without being specifically asked. Think of this as performance support but on an entirely new level. Autocomplete within your email client is one simple example; another is conversational prompts built into call center software.

Translation

Employees are often limited to a select set of options that may not include their preferred language. Unfortunately, translating content is a time-consuming and expensive process. AI can translate content in real time into any available language with rapidly increasing accuracy, without the need for extra work by L&D. For instance, smartphones enabled with machine translation and speech recognition help people bridge language gaps.

Authoring

A considerable amount of time, money, and capacity are spent building training content. In many cases, TD professionals are acting as liaisons between SMEs and employees. Today, machines can write content faster and at a quality level that is similar to human authors. In fact, you are likely reading AI-written online articles all the time—but you just don't know it. Authoring capabilities will help TD professionals shift their content mindset from creation to curation.

vacuum, seek out AI experts working within your company. How are they using this technology? How does management plan to apply AI in the coming months or years? How do these decisions affect the way people perform their work? Find ways to align your AI exploration with existing applications.

Establish an AI vision for TD. Once you understand how AI is transforming the workplace, shape an AI story that integrates TD with the future of work. How must learning and support opportunities evolve to meet workers' changing needs, and how can you use AI to power these resources in new and innovative ways? You may not identify every potential AI use case early on, but you can establish an overall vision for how AI will influence the role TD will play in enabling human performance and business impact moving forward.

Improve TD data practices. Data is a critical component of any AI strategy. Machine learning requires a significant volume and variety of high-quality data to generate insights, recommendations, and actions. Unfortunately, this is a gap for many TD professionals today. After you establish a renewed vision for TD, work with your team to identify the types of data it needs to fuel AI-enabled technology. This should include a blend of expanded TD metrics, as well as key performance indicators from business stakeholders.

Partner with experts and solution providers. Depending on internal knowledge and resources, your TD function may not be able to develop complete AI-based solutions on its own. Identify and work with external partners who can provide the necessary tools and expertise in alignment with your established vision. Be sure to also work with existing solution providers to understand and inform any AI-related technology road maps.

Experiment with AI applications. Like any new technology, AI will require experimenta-

tion to find the right applications. Ensure all experiments, regardless of scale or use case, align with the organization's vision. This process should include all potential stakeholders, including management, subject matter experts, and end users. Have clear plans for how to rapidly implement and scale successful AI applications. More importantly, avoid getting bogged down with failed experiments.

Measure, iterate, socialize. TD leaders must establish clear success criteria and measurement strategies for all AI applications. Avoid unnecessarily long pilot periods; instead, opt for constant evaluation and iteration to improve results. For this approach to work properly, continuously report on progress with all stakeholders.

Change is ahead

AI represents a unique and exciting challenge for TD. While organizations can apply it to solve learning and performance problems, it is not specifically TD professionals' domain. Fortunately, AI is a discipline with extremely deep expertise and decades of extensive research. Although the TD function must take the right steps to determine how it can use AI, it must also reflect on how the technology will fundamentally change TD professionals' roles. Just like the employees you support, you must be open to change and let go of some familiar tasks to focus on the truly human parts of your job.

AI may be quickly becoming part of our everyday lives, but we're still in the first few chapters of the complete story. TD has the opportunity to reimagine how we support people within this new reality by leveraging the same technology that is transforming how work is done.

> **Rather than begin this exploration in a vacuum, seek out AI experts working within your company.**

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