ATD'S 2020 TRENDS IN LEARNING TECHNOLOGY

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Contents

Introduction
A Look Back at 2019 and a Look Ahead to 2020

Justin Brusino

THE WORKPLACE IS CHANGING. But that's nothing new. Fax machines, copiers, computers, cell phones, Internet, email—in every era of the modern workplace there's been disruptive technologies around the corner changing how we communicate, learn, and get things done. In 2020, we're all keeping an eye on another disruptive technology: artificial intelligence. Everyone agrees it will fundamentally change the way we work and live, but no one seems to agree on what that change looks like and how fast it will come.

Some analysts predict AI will displace X number of jobs. Others predict that while AI will no doubt kill some jobs, it will create even more than it eliminates. Their reasoning is that jobs will be created to manage the machines, while humans will be freed from rote tasks that have become automated; but it's more complex than that. Everything comes back to what makes us human: Whether it's a chat bot designed to coach sales professionals or a simulation program to give drivers experience before hitting the road, today's new technology still ultimately exists to make human life better. And that takes human minds and hearts at work, designing and implementing that technology in a way that works efficiently—and empathetically—with the humans on the other side.

This book is a snapshot of the learning technology trends and hot topics that we have discussed, dissected, and scrutinized for the past 12 months. They may span a broad variety of opportunities and applications, but one thing unites them—the human element of how to apply them to help people work better. Some of these will continue to mature and evolve and find a place in our technology toolbox for years to come. Others may never fully be embraced. And that's OK. The goal of this book is to provide you a quick glimpse into a number of popular trends and give you a sense of how you might begin to use them in your organization. No matter your role on the L&D team or the makeup of your organization, it's important to consistently review and evaluate new technologies and trends to see if they make sense for your organization. Hopefully this book helps you do that.

Assembled in this book are chapters by eight people who like to experiment, tinker, create, play, and do. Each author looks at a trend, what impact it's had on the L&D field, and what impact it might have in the future.

In Chapter 1, Shannon Tipton examines the endlessly discussed topic of microlearning.

In Chapter 2, Mike Lenz looks at podcasts and how you can get started producing an internal or external learning podcast in your organization.

In Chapter 3, Becca Wilson looks at user-experience (UX) design—a concept integrating multiple design disciplines—and how learning professionals can use it to build more user-friendly learning experiences.

In Chapter 4, Sarah Mercier and Sean Putman break down Experience API (xAPI), a much-discussed tech specification that allows you to track learning data in increasingly sophisticated ways.

In Chapter 5, JD Dillon dives into the world of AI, looking at practical ways it can be leveraged by the L&D team.

In Chapter 6, Destery K. Hildenbrand unlocks the world of augmented reality (AR), and how it can cross over from the world of popular app-based games into learning.

In Chapter 7, Brandon Carson wraps things up by looking at the evolving role of the L&D professional as technology becomes more present in both learning and work overall.

While this book focuses on technology, it's important to remember that technology is only a tool. It's fun and exciting, but without a purpose, technology is meaningless. Fortunately, the best uses of technology can bring us even closer as humans—by putting us in someone else's shoes through virtual reality, making content more accessible to all, or enabling workers to achieve their best potential through effective learning. The theme of this book may be technology, but the element that ties all the technology together is people.

1

Microlearning As a Framework

Shannon Tipton

Once upon a time, when I was just a little trainer on my way to growing up, there was no Internet *GASP*, there were no "apps for that," and there was no social network to reach out to. You just had to figure out how to conduct training, or do what the person before you did. The term *microlearning* was not part of the learning vocabulary, or at least not mine; we used words like *chunked* or *nuggets* or full phrases like "training that is short."

When the term microlearning burst onto the stage around 2006, I and others were understandably confused. This isn't new? Weren't we doing this already? We thought to ourselves. The beauty and curse of the interwebs is the ability to coin a buzzword and have it spread like wildfire. Enter microlearning—we finally had a brand name for an application that a fair number of trainers and instructional designers were already using.

However, there was still confusion. When I asked my network how they defined microlearning, the answers were all over the board, with two elements taking the lead: short videos and short courses.

Well, yes and no. Yes, short videos and courses are micro applications, but no—just because they're short doesn't mean they can be classified as microlearning.

When thinking about microlearning, key is not to think small and short, but "right-sized" for the need. That being said, the very definition of *micro* comes from the Greek word meaning "small" and the one thing learning professionals can agree upon about microlearning is that there is no consensus about the application of the term.

Because of this lack of consensus, it's no wonder people are confused and even a bit intimidated by the idea of implementing a microlearning strategy within their organizations. And since L&D managers aren't sure what they're building a strategy around, when leadership asks for clarity around microlearning, they don't have a definitive answer. This uncertainty is one of the reasons why L&D is still at the microlearning starting line, waiting to push off and go.

This may seem like crazy talk, but I'm not going to offer a standard definition for microlearning. What I am going to do is set standard parameters for microlearning moving forward:

> *Microlearning is short bursts of focused "right-sized" content to help people achieve a specific outcome.*

Microlearning at its core is about performance support and learning reinforcement, which encompasses the micro aspects of a variety of learning modalities. Then, within this context we have microlearning objects and microlearning (or mini) courses, both of which have their own purpose.

Micro Versus Macro: Why Is the Distinction Important?

At the risk of adding undue complexity, it is important to discuss microlearning's big sister, macrolearning, then relate microlearning to blended and chunked delivery. The relationship between all three is close, yet they each serve different and important roles. The differences in blended, chunked, and micro may be small, but it's important to understand the nuances as they apply to microlearning.

Up First: Macrolearning

Macro is the classification of larger, broad scope curricula. Macro and micro can be contrasted this way: Macro is the stuff that enhances and supports how you do your job, and micro is the stuff you need to do your job (Table 1-1).

Table 1-1. Macro Versus Micro

Macro	Micro
Broader curriculum to enhance and support your job (want-tos or have-tos): • Onboarding programs • Corporate universities • Leadership development programs • Safety certifications • Management supervision • Customer service programs • Sales training	The stuff I need to do your job (how-tos): • How to create an excel formula • How to enter a sales lead into the CRM • How to change the toner in the printer • How to check voicemail on an overly complicated phone system • How to program your out of office message on email • How to edit a photo
What this looks like: • Sitting in a classroom for hours, days, weeks, or multiple weeks • Virtual webinars for hours over the course of days or weeks • Multiple modules and lessons • MOOCs	What this looks like: • Short burst video • Checklists • Recorded PowerPoint • Automated wizards • Infographics • YouTube videos • Podcasts • Job aids • Wikis
What's in it for me? Will these programs or courses help me to do some aspect of my job? Help me grow professionally? Provide me with knowledge to support my success?	**What's in it for me?** Will this help me solve an immediate problem? Will this help me do my job now? Will it answer a question now?

Related Cousins: Blended, Flipped, and Chunked Learning

To add further richness to courses and deepen embedded skills and knowledge, progressive learning professionals look to modernize their curriculum by incorporating blended, flipped, and chunked elements to their overall curriculum designs. These types of modalities can have micro elements, but they are part of a larger macro design.

Blended Design

A blended design is one that uses different modalities to connect segments of a broader curriculum. Typically, the design incorporates instructor-led learning activities with activities occurring beyond the walls of the class to create one blended model with carefully constructed curriculum links.

As an example, let's say we are designing a workshop on project management. There are two parts, and in between each part, groups of students work on a live project using the concepts learned in the class. As they progress, they report back using a collaborative tool to host discussions. The benefit is that when they reconvene for part two, they are more prepared to discuss their progress and absorb additional content.

> *Can we use microlearning elements to support blended learning?*

Absolutely. Micro-videos or Ted Talks are just a few of the potential out of class components—they're both easily accessible moments of learning that support a bigger picture but also standalone (Figure 1-1).

Figure 1-1. How Microlearning Supports Blended Learning
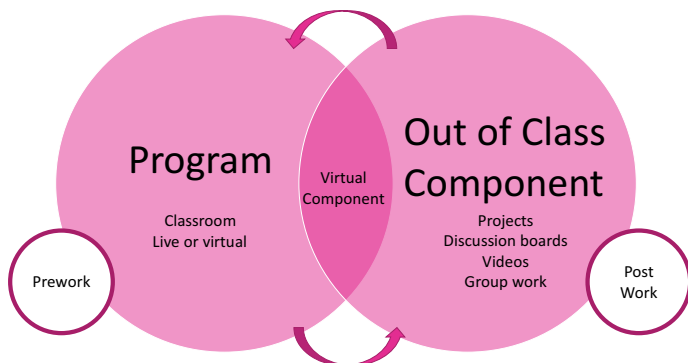
Chunked Content

There are two general uses for the term chunked content. One is to chunk content into manageable bites during the learning process. We do this to help scaffold the learning within the classroom setting. The other speaks directly to the instructional design process. Here we chunk or group pieces of information so as not to overwhelm the short-term memory, decreasing the chances of cognitive overload. We chunk content in technical manuals, workbooks, and other such instructional tools.

As an example, we use chunked content when facilitating an instructional design workshop. When discussing the foundation of the ADDIE model, we first break down analysis, then design, then development, and so on. We chunk the information into digestible bites of information that stay within the curriculum.

Chunked Versus Micro

Chunking: When applying these concepts, chunking has a beginning, a middle, and a "to be continued." For example, in a five-part video, we must watch part two in order to understand part three. All the segments are broken out but are still connected.

Micro: Microlearning has a beginning, a middle, and an end. The focus of microlearning is on "the do." At the end of each microlearning element, one should be able to "do the thing" or "do the thing better." One does not need to watch the five-part video in a linear fashion, as each bit would have been designed to reflect an intro, a message, and a conclusion. This allows the viewer to watch the videos in any order they desire and still learn from them.

> *Can we use microlearning elements to support chunked learning?*

Yes. Where microlearning helps with chunked content is in the area of microlearning objects; for example, as seen in Figure 1-2, you can group microlearning elements such as checklists, job aids, videos, and mini-courses to create a self-directed program or to use as chunks to further support practice retrieval. As we will discuss later, items like infographics can be used to support the classroom but also can be used as performance support tools after the class.

Figure 1-2. How Microlearning Supports Chunked Learning
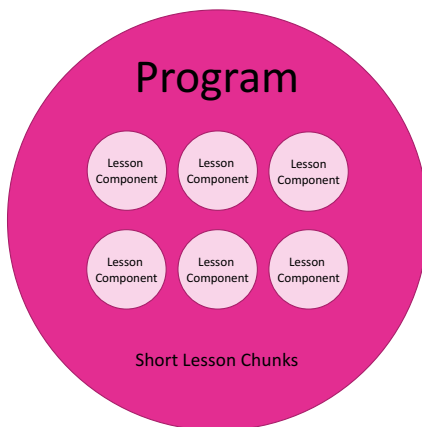
Flipped Content

A flipped curriculum turns the traditional classroom on its head. In this structure, you take out the lecture portion of a traditional lecture-based curriculum and give it to participants to experience prior to attending the classroom, leaving the classroom time to tackle critical practice and exercises.

An example is new hire orientation. Rather than having the participants' heads spin with PowerPoint after PowerPoint about topics that may be interesting but have little to do with the job, have them complete an exercise prior to the class involving a corporate website scavenger hunt. Then share the results in the class. Or, have the participants go to the website prior to the class and watch a community video by the president of the organization, then have a discussion about it in class.

Can we use microlearning to support a flipped classroom?

Yes! Perhaps your organization has a YouTube channel. As Figure 1-3 demonstrates, you can have participants review a series of microlearning elements prior to the instructor-led or virtual class so they can hit the ground running to support in class activities or interactions.

Figure 1-3. How Microlearning Supports a Flipped Classroom

* * *
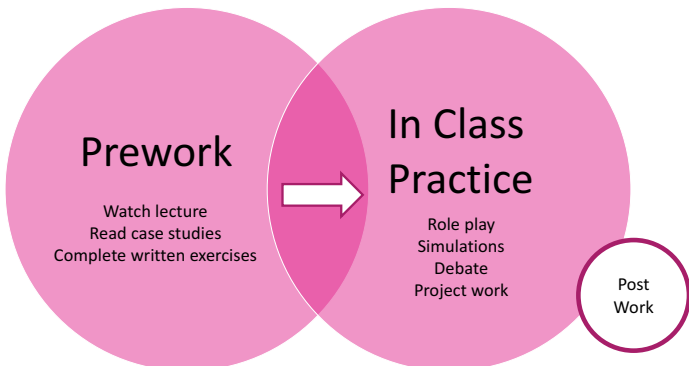
As you can see, the bigger picture of macro learning helps us grow and develop certain knowledge and skill sets that may be required to perform our jobs as part of the bigger picture. Once we have that foundation of knowledge set, microlearning elements and reinforcement courses help move us through the learning curve, enhancing and upgrading our level of skills. A good learning strategy involves and balances both the need for foundational skills and continuous knowledge with learning in the moment.

Microlearning Objects and Courses: Potato, Potahato?

Littered within the concept of microlearning are different terms, such as *microlearning objects* and *courses*. Making sense of them doesn't have to be the stuff of rocket science. You simply need to keep in mind the context of use.

Microlearning Objects

Remember that when microlearning is developed for performance support purposes, you might recognize job aids as microlearning objects. This group would include items such as checklists, decision trees, wallet cards, call center scripts, assorted infographics, and flow charts. The basis of microlearning objects is that they are tools to help people do the job, while in the job. Microlearning objects could also be short burst videos, audio clips, or a well-designed mobile app. Every time you watch a how-to video on YouTube, you are watching a microlearning object. This often surprises people. We don't have to be all high techy to create microlearning objects. That safety card in the back of the airline seat? That's a microlearning object!

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