2019 TECH TRENDS THAT ACCELERATE LEARNING
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As society evolves and expands, its ability to distribute resources to its members becomes more important than the resources themselves. Take, for example, the aqueducts of the Ancient Greeks. When their society began to flourish, they developed the technology needed to transport water from a localized source throughout their expanding empire. While the water itself was necessary, their ability to expand hinged upon their ability to transport the resource, not the resource itself. This same principle applies to our water pipelines and treatment centers today—we need water, but not as much as we need reliable and clean access to that water.

In a professional setting, knowledge operates in a similar fashion, but it’s a much more complex resource—the knowledge that will take you into the future is unique to the people in your organization. This knowledge comes from many sources—your industry experts, thought leaders, and executives are the informational wellsprings of your organization. But if the infrastructure for communicating this information doesn’t sufficiently carry this resource to the people that need it, you’ve got a knowledge drought on your hands.

In today’s market, the impact of inefficient distribution of knowledge can take years to correct, often resulting in employee turnover, missed opportunities, and ideas that become obsolete before they are put into action. Luckily, all of the tools to ensure efficient distribution of knowledge throughout an organization already exist—and there’s a good chance that your employees already know how to use them. The number of internet users in 2018 totaled over 4 billion, the number of
social media users totaled over 3 billion, and the number of mobile phone users topped out at over 5 billion—all of which had increased compared to 2017. The tools people are using to learn about current events, connect with friends, and grow their professional networks are at the disposal of L&D professionals around the world. Why not harness this technological boom to make sure your unique knowledge gets to the right people at the right time?

With this exponential expansion of communication technologies, it can be tempting to choose a technological approach that looks flashy or makes big promises. We’re to the point when the amount of technology available has almost become a burden as we sift through each available piece of technology for the right fit. Using a new technological approach to distribute your L&D for the sake of using technology isn’t going to be good enough, which is why taking the time to consider and get clear on the content that you want to share with your workforce is one of the most important distinctions you can make.

This eBook is designed to help you with that process in the following ways:

• Discuss the ways technology has changed the way learners process information

• Outline best practices for implementing technology in the learning process

• Review the educational properties of new and trending technology
ADDRESSING THE CHALLENGES
Ways technology has changed how learners process information.

IMMERSIVE TRAINING IN PRACTICE
Best practices for implementing technology in the learning process.

TRAINING TECH TRENDS
Educational properties of new and trending technology.
Focusing on the rapid evolution of training and learning technology can often lead us to overlook one very crucial part of the learning process: How has the proliferation of communication technology impacted the way people learn new information? The fact of the matter is that the incumbent workforce learns new information very differently than their predecessors. If L&D professionals fall into the trap of thinking today’s learners interact with and assimilate new information via droning lectures and exhaustive PowerPoint presentations, then they’re in for a rude awakening.

While these tools were effective at one time, the fact remains that our learners no longer look to single-source outlets of knowledge. Instead, today’s learners are used to accessing an entire network—podcasts, YouTube videos, blogs, etc.—to learn about and engage with the world around them. This paradigm shift in the way people process day-to-day information has had a profound impact on the way we learn. Where rote memorization was once a valid learning strategy, mobile technology has created a resource to supplement any knowledge gaps that we might encounter. Where communication among experts used to take weeks, it now takes only minutes.

Where visual aids and media used to be difficult to produce, anyone with a mobile device can create and access audio-visual resources anytime, anywhere. As modern technology has solved previously unsolvable problems for instructors, the time has come to take advantage of our learners’ implicit ability to learn in a technology-centric world.

“This paradigm shift in the way people process day-to-day information has had a profound impact on the way we learn.”
If we consider the fact that modern technology has infused today’s learners with innate information-processing skills that were previously unheard of, we can shift our educational focus to the distribution of knowledge instead of on the knowledge itself. Our interconnected professional networks and ability to analyze data have created vast oceans of information that are at our disposal—we’re not going to run out of information anytime soon. Such large repositories of knowledge create three distinct challenges when faced with disseminating that knowledge:

**CHALLENGES**

Each of these hurdles requires its own set of solutions, but we’ve developed the means to address all three obstacles via today’s educational technology solutions.

**01. PRIORITIZATION**

What knowledge or information does our workforce need to learn in order to help us all grow?

**02. DISTRIBUTION**

What is the most efficient and engaging way to distribute that information to our workforce?

**03. APPLICATION**

How can we make sure our workforce has learned what we want them to learn?
Advances in the way we create and maintain databases of professional knowledge combined with our ability to generate gigabytes of data about resource utilization have given organizations more valuable information than they’ve ever had. This can be a double-edged sword, however—vast amounts of information require a strategic approach to deciding what information will best help your workforce and expand your organization.

Data gathering and analytics can either be your best friend or your worst enemy in this department. Modern technology has given us the ability to generate millions of data points over a wide range of categories, so sifting through this information has become a priority. Without a strategic plan in place regarding how to use this data, all of those charts, graphs, assessments, and reports can quickly become a wall when you’re looking for a bridge.

Data mining through the lens of needs analysis is the best way to use data to inform decisions regarding training solutions. Approaching this process with a specific goal in mind helps focus attention on data that relates to the problem. For example, if you’re looking at cutting down employee turnover, data relating to the amount of onboarding training employees receive would offer good insights about what direction your training should take. Once a training program is in place, don’t overlook the data generated by your users. Seat time analytics, progression statistics, and rates of participation are all valuable tools in measuring the success of a training initiative.

"DATA GATHERING AND ANALYTICS CAN EITHER BE YOUR BEST FRIEND OR YOUR WORST ENEMY IN THIS DEPARTMENT."
The methodology behind your chosen distribution efforts is more important than the knowledge you are trying to distribute. Establishing a secure, efficient pipeline of research-based instructional design principles is the only way to get your expertise into the hands of your workforce. Each distribution method has its own nuances, pros, and cons, but fully exploring the approach that works best with your content is well worth the investment.

One distribution method that is increasing in popularity is the practice of ongoing training instead of single training sessions. It’s especially useful in onboarding, as most employees don’t reach their full productivity potential in their first year of work. Ongoing training sessions allow learners to learn new concepts at a manageable pace. Additionally, offer ample opportunity for learners to discuss problems or learning obstacles with their supervisors without appearing overly needy or giving the impression that they can’t solve problems on their own.

“THE MOST UNDERRATED TREND IS EFFORTLESS ACCESS. EVERY EXTRA CLICK, EVERY EXTRA STEP IS A NUANCE WE CAN’T AFFORD.”

Mike Kennedy
Associate Vice President at the National Basketball Association
Chief Learning Officer – January/February 2019
This interval-style approach to training can become even more effective when combined with performance support measures for learners to access along the way. Modern technology has given us a profound ability to quickly create searchable databases of information that can be beneficial to new hires who require support while they immerse themselves in their new role. While timely and engaging training opportunities coupled with an on-the-job resource library are ideal for new employees, this technique works just as well for current employees who need to learn a new soft skill or reference a procedure that is not commonly used.
As data analytics become easier and more robust, we can use that technology in our training programs to generate valuable information about our users in order to gauge the effectiveness of a given course. Data like completion rates, exit surveys, rates of participation, and competency scores can be easily collected with modern training programs. Once this data is gathered and sorted, it can be compared to rates of success in related areas or toward meeting certain goals.

For example, if users were offered an optional, web-based training to develop certain soft skills to help them improve the effectiveness of their sales pitch, the number of employees that take the training offers just one data point. The employees who excel at the coursework can offer another data point, and the employees who contribute any information to their exit survey provide yet one more. This data can be compiled, analyzed, and cross-referenced to see if the employees who took the training became more effective salespeople.

Choosing the Right Approach

With the amount of technology available and on its way, choosing the technological framework for your learning solution can be a daunting task. It’s easy to associate relevance and effectiveness with the amount of buzz a certain technology is getting, but all tech is not created equal. Once you’ve done the work of isolating your company’s needs and mapping out a plan to achieve those needs, the next step is choosing a technology that will do the best job. There are several new and exciting innovations coming our way this year, but let’s take a closer look at those that are most likely to get your learners on the right track.
When you think of an immersive environment, you probably think of going to an IMAX theater, tackling an escape room, or playing in the massive virtual world of Ready Player One. And these technologies, real or fictional, do immerse people in a world, story, or challenge. But did the training industry come to mind? Surprise! Immersive environments can be incredibly effective at facilitating learning.

The aspects of an immersive learning environment are varied, but ultimately, learners are placed in an environment (physical or virtual) with which they can interact. The technology often mimics situations or scenarios from real life in great detail, so learners can practice the skills necessary to succeed. A benefit of this is that learners can experience these situations in a safe environment without threat to their own or other’s health, boosting their knowledge and skills.

Immersive learning environments in the workplace have enormous potential to increase productivity and cut training costs. Up next, we'll take a look at two methods of using these technologies.
AR/VR

Virtual reality and augmented reality are the next big thing in training. While virtual reality technology is still far from being mainstream in the training world, augmented reality technologies are much more common and affordable, and this technology is beneficial to several different industries. For instance, the world of medicine is greatly helped by providing surgeons with a massive library of 3D resources that they can use to prepare for surgery. Training nurses and doctors on risky surgical procedures via simulations can create competency without needlessly endangering patients.

"AR/VR CAN MAKE PERFORMANCE SUPPORT MORE EFFECTIVE AND ENGAGING."

In construction and manufacturing, workers can use AR systems on the job to see next steps in the process or to troubleshoot machines. AR can also keep machine downtime low by providing training simulations rather than stopping and restarting a production line to provide new hires with experience.
In nearly all industries, safety training programs can be enhanced through AR or VR as technicians or other employees can practice doing their job safely without putting themselves or others in harm’s way. Performance support on the job is made more effective and engaging.

**INTERACTIVE VIDEO**

Since the start of its existence, video media has been solely passive, which presents a challenge for learners to engage with the medium. Recent trends in technology have L&D professionals creating interactive videos to boost engagement. Now that bandwidth capacity has advanced to allow larger video files to go through networks, learning teams can create bigger and better projects.

It turns out that learners find interactive video training much more interesting compared to traditional video. People enjoy the experience of being put in the driver’s seat and given the opportunity to explore at their own pace. This measure of personalization brings people back to the videos.

"PEOPLE ENJOY THE EXPERIENCE OF BEING PUT IN THE DRIVER’S SEAT AND GIVEN THE OPPORTUNITY TO EXPLORE AT THEIR OWN PACE."
PERFORMANCE SUPPORT PLATFORMS

New employees are confronted with a barrage of information—compliance policies, departmental introductions, task definitions—and, as marvelous as it is, the human brain simply cannot process all of that information at once.

When performance support tools like mobile apps, interactive training videos, and resource databases tailored to new employees are integrated into the onboarding process, new employees will be able to get up and running more quickly. Investing in an accessible performance support platform also alleviates the stress that new hires often face when starting a new job. If one of their primary takeaways from their initial onboarding is that they don’t need to know everything as long as they know how to use one or two performance support platforms, then new employees can focus more of their energy elsewhere.
Despite the fact that science fiction has made some fairly harsh predictions when it comes to artificial intelligence (AI), the truth of the matter is much more down to earth. Contemporary uses of AI are more about learning from their users to make training more effective—not to rise up and destroy them.

Popular science has shaped a certain narrative about AI, and it’s far from accurate. When approaching AI from the world of professional development and education, AI occupies a smaller, supplementary role for learners. We’re not talking about robotic professors able to access a wealth of knowledge via internet-linked brains, nor are we talking about bots that will write term papers for students. The current educational application of AI is geared toward gathering information like response time, user traffic rates, and assessment data to build a learning environment that responds and adapts to its users’ needs.
APPLICATIONS OF AI

Artificial intelligence plays an integral role in much of our technology today, and companies like Carnegie Learning have introduced AI into schools across the country with their MATHia software. It’s a program designed to provide middle-grade students with an adaptable, coach-like interface that learns about each user in order to provide a more efficient educational experience. MATHia provides feedback, adds context, and plans future activities around each user’s individual progress.

While MATHia takes full advantage of AI technology, it’s been designed to supplement math teachers, not replace them. The AI also provides useful data on the back end so educators get a useful snapshot of student progress, as well as information about which concepts that might need additional support among students.

The uses of AI in MATHia demonstrate a vast amount of potential for AI and its application to the world of professional development. AI can not only adapt courseware to the needs of each individual learner, but it can also provide useful data to all stakeholders.
In addition to its adaptability and analytical possibilities, AI can provide a more in-depth learning experience through the use of facial recognition software. A training program that recognizes each user based on their facial features and tracks their levels of engagement can offer a whole new learning environment. It’s easy to see facial recognition software as a gimmick, but the fact that influential tech companies like Google, Apple, Microsoft, and Amazon are burning through L&D budgets to develop their own imprints of recognition technology is enough to evaluate its impact on professional development.

The field of facial recognition software is still in its infancy, and its development is not without controversy, but that doesn’t mean that it doesn’t have a use in the context of education and professional development. For example, the Swiss tech company KeyLemon created a facial recognition program that is being applied to an eLearning context. This technology offers a benefit to instructors whose content is sensitive enough that user verification is necessary, and it also allows them to see the faces of their learners as they progress—or even while delivering facilitated instruction. Eye-tracking technology within the program takes note of which users are paying attention, but this feature can also be used to track the concepts and activities that give the users the most trouble or that they find most interesting.

The possibilities of facial recognition software are still being explored, but based on the progress that we’ve made so far, it won’t be long before we see digital learning solutions that feature variations of recognition software.
The technological advances that our influencers and thought leaders have made over the past decade have been truly staggering. Every new development creates a waterfall of potential uses, outcomes, and possibilities. At the rate that we’re creating new and exciting technologies, choosing the proper tool for the job at the right moment can feel like trying to hit an always-moving target.

What hasn’t changed, however, is our desire to share knowledge with those who need it. The principles behind the distribution and acquisition of knowledge will remain the same regardless of what technological advances happen to come our way. As long as information is relevant to the learner, beneficial to their professions, and presented in a way that is attractive and engaging, we can help our workforces gain the skills they need to succeed. Choosing the right technology to help learners get the information they need when they need it is an integral part of the learning process, and AllenComm will be here to help guide you through that process.
ABOUT ALLENCOMM

AllenComm is a leading custom training solutions provider that partners with the nation’s top brands to create unique and innovative learning solutions that make an impact. Using extensive instructional design experience, innovative learning technologies, and agency-level creative teams, in combination with a design and development system, empowers AllenComm to gain a thorough understanding of clients and their learner’s needs and objectives.

AllenComm uses a performance acceleration platform to incorporate the most innovative digital learning techniques to meet the most challenging training objectives that allow AllenComm clients to scale for growth. AllenComm explores and utilizes the best methodologies for their clients such as microlearning, gamification, blended learning, motion graphics, AR/VR, and more. See award-winning AllenComm learning solutions in onboarding, brand, compliance, and sales enablement training at www.allencomm.com.

SITELINE: PERFORMANCE SUPPORT SYSTEM

Siteline\(^1\), is a real-time workflow solution that provides the right information when and where it is needed most. Learners get access to map their work, easily find the content they need, and utilize the latest tech to virtually master skills needed in their day-to-day jobs.

This digital platform allows learners to use location, voice, and visual scanning to search for content they need. This could include a training video, PDFs, quick checks, and skill evaluations. Users can also access 3D or VR technologies on Siteline to learn on-the-job skills.
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