

Emerging technologies and learning in employee training programs



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One thing that can be certain in today's society is that technology is ever-changing. In the past decade alone, technology has advanced so significantly that nearly every aspect of our lives can be supervised using technology. Not only has this technology influenced our daily lives, but it has influenced how we teach and how we learn. The field of instructional design and technology is expanding rapidly as businesses scramble to incorporate new technologies into their training and learning realms. Significant advancements have been made; however, the use of technology in employee training programs will only continue to expand as instructional designers are hired to oversee these programs.

A good training program is critical in healthcare because employee performance has a direct impact on the patients. Benefits of a good training program include a positive atmosphere, higher employee retention rates, and increased patient satisfaction. Training should begin before the new employee even walks in the door and continue throughout their career. Today, many employee programs are based around a combination of face-to-face classroom training and e-learning training offered online, often through use of a Learning Management System, or LMS. In the future, I would like to see the primary focus for training at my organization shift from face-to-face to online, e-learning.

In order to achieve a higher level of excellence, the employee training program should be supported by learning theories, as well as instructional design theories and models. The first learning theory I would like to discuss is the sociocultural learning theory. This theory was originally presented in the early 1930's and focuses on the fact that our environment plays an

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important role in the ability of a learner to develop. There are primarily three aspects to this learning theory: “ culture, language, and the zone of proximal development” (Pappas, 2017). A successful training program must take into account these aspects when training is designed and implemented.

Two other learning theories, which should be taken into consideration when designing a successful training program in the future, are the situated learning theory and the constructivist learning theory. These theories will be discussed later in the paper, as they support the emerging technology to be implemented in my future vision of training at my organization.

Although a successful learning program should be supported by the learning theories as previously discussed, instructional design models and theories should also be taken into account when designing the training program. Two models that support instructional design are the ADDIE model and the SAM model. The ADDIE model was initially used by the U. S. Army in 1975 and stands for analyze, design, develop, implement, and evaluate (Pappas, 2017). In order to provide the highest level of training to employees at my organization, it is imperative that a model, such as this one, is followed when designing the instruction. The ADDIE model specifically focuses on the needs and outcomes of the learning so that the learner receives a more personalized and informative experience.

Another model that is associated with instructional design is the SAM model. Like the ADDIE model, this model focuses on the instructional design process and moving the project through phases in a timely fashion. This model tends

to be a little more flexible than the ADDIE model and produces a more complete outcome than the ADDIE model (Pappas, 2017).

Lastly, when designing learning at an organization, particularly e-learning, it is important to incorporate other common practices important in traditional classrooms. Individualized instruction should be incorporated as much as possible to personalize the learning experience to suite your learner's needs. For example, when designing an e-learning online to train a new employee in customer service, the e-learning should be individualized to suite their particular job role. Currently, trainings such as customer service tend to be generic, which makes it harder for the learner to see how it is applicable to them. Bloom's taxonomy also plays an important role in helping the learner reach the required outcomes of the e-learning course. Bloom primarily focused on the cognitive domain, and developed a hierarchy that helps the learner progress from basic understanding to mastery (Pappas, 2017). When the learner understands what the expectation is and how to get there, they are more likely to be successful in an e-learning course.

Five years ago, my position as an instructional designer in the Revenue Cycle Quality department at my organization did not exist. Today, my role is expanding at a rapid rate as new training procedures and programs are required for the revenue cycle to function on a daily basis. Technology and e-learning opportunities in particular have become increasingly more important in order to meet the needs of the organization. I envision a future of training at my organization that allows for engaging and dynamic e-learning to take center stage in our training programs. The educational technology that I would like to focus on incorporating is augmented reality, <https://assignbuster.com/emerging-technologies-and-learning-in-employee-training-programs/>

or AR. I believe that augmented reality can push our training to a new level as the need for remote learning becomes increasingly more important.

Augmented reality is “ learning that utilizes mobile, context-aware technologies, which enable participants to interact with digital information embedded within the physical environment” (Dunleavy & Dede, 2014, p. 735). Currently, there are two types of AR available for use. These types are location-aware augmented reality and vision-based augmented reality. Location-aware AR requires the user to move through a physical space with a GPS-enabled device and allows digital media to overlay on top of their environment. Vision-based AR allows the user to remain stationary, and simply point their device at an object to experience the digital media overlaid in their environment.

Augmented reality is associated with situated learning theory and constructivist learning theory. Situated learning theory was developed by Jean Lave and Etienne Wenger in the early 1990’s who “ argue that learning is a function of the activity, context, and culture in which it occurs” (Culatta, 2018). Some of the key components that justify AR aligning with this theory are that AR is technology-based, focuses on problem-solving skills, engages the learners in complex, realistic situations, and encourages tapping of prior knowledge.

Constructivist learning theory was developed by Jerome Bruner and centers around the idea that “ learning is an active process in which learners construct new ideas or concepts based upon their current/past knowledge” (Culatta, 2018). Some of the key components that justify AR aligning with

this theory are the development of higher-order thinking skills, active and engaged participants, and the focus on inquiry-based learning.

Incorporating augmented reality into my organization's training is a smart move because it can provide many benefits to the organization and the employees who utilize it for their training needs. Some of these benefits include a deeper interaction with the material and how it relates to the real-world, readily available pre-made resources, the ability for the learner to engage with the material from any location, and higher motivational levels and learning retention rates in employees (Lynch, 2018).

The ability for a learner to engage with new material in the real-world allows for AR to accomplish things that traditional learning could never do. For example, a new employee would benefit dramatically from being able to learn about and practice tasks in a virtual environment prior to ever needing to do them in the real-world. New employees could be taken on a virtual tour of a space without ever needing to leave their current location. AR also opens open new doors for employee compliance training and onboarding procedures (Quodeck, 2018).

AR provides the opportunity for organizations to offer consistent, high-quality training materials and resources to every single new employee that walks in the door. As mentioned previously, my organization utilizes a lot of face-to-face training. From my experience, this face-to-face training can vary dramatically depending on who is presenting the material. With AR technology, all new employees can be offered the highest quality of training. AR also provides an easy way for employees to get follow-up training on new

procedures, as well as, the ability to revisit the training material as often as necessary.

According to Business Insider, approximately 50% of all employees will be working remotely by 2020 (*Fifty Percent*, 2018). As more and more employees transition to telecommuting, the ability to provide virtual training becomes increasingly more important. A key benefit of AR technology is that it can be viewed from any location without ever needing to travel from the office, home-office, or in the case of my organization, a different state.

The final benefit that AR technology presents is a higher level of employee engagement and retention. An employee is more likely to be engaged and retain the material if the learning provides an opportunity for real-world integration and practice. Through the AR learning process, the employee can demonstrate and experience decision-making that may occur on the job every single day. This decision-making tends to be a behavioral aspect of the job that one only improves upon in real-world practice (Singh, 2018).

Augmented reality can provide this!

Although augmented reality offers many benefits to an organization when implemented into a training program, there are also concerns that should be taken into consideration. These concerns include the security, privacy, and safety of users (Roesner, 2017). These concerns are important to address, especially for an organization looking to implement it, due to the high importance placed on cybersecurity, and particularly for health-care, patient information. AR also potentially opens up the door for concerns regarding physical safety of the user. Because AR overlays images onto a real

environment, it could become distracting depending on the circumstance, such as a user driving or walking in a crowded area (Davis, 2016).

Augmented reality can be used to meet many employee training needs; however, one activity I foresee this technology being useful for is a virtual revenue cycle open house. The revenue cycle at my organization consists of approximately 700 employees, all working in many different departments and buildings across our campuses. In the past, the revenue cycle open house has been done face-to-face and provided an opportunity for employees to learn about other areas within the revenue cycle and how to better utilize their resources to increase job performance. A major drawback of this event is the amount of time it takes for an employee to attend the open house, essentially requiring the employee to lose a day or two of job tasks. This year, we would like to make this a virtual experience, and I believe augmented reality would be just the way to do that. With augmented reality, the learner can gain first-hand knowledge from the employees who work that department every day, without ever needing to leave their desk. It allows for learning to take place on the employee's schedule, rather than needing to set aside a full day to attend the face-to-face open house. Of course, this will be a task for me, the instructional designer, to design a usable augmented reality overlay for each department. However, each department will also need to be heavily involved in the designing process in order to make the augmented reality virtual open house a success.

In order for training to progress and move primarily online, my organization will need to adjust the expectations for employee learning. It is not simply enough for an employee to attend a "training". The employee must be

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offered the chance to demonstrate their knowledge, and the ability to access that knowledge in the future. This is why I believe strongly in e-learning and the benefits it can provide. Implementing proper e-learning most often requires usage of an online Learning Management System. At my organization, we currently do have one of these in place, but an understanding of how to use and navigate the system is lacking. It is not being used to its full potential because there are not enough instructional designers who understand how. The first measure to be taken to push an organization's training towards the future is to implement a strong, usable LMS, and teach the required parties how to effectively utilize it. In addition to an LMS, instructional designers need to have the understanding on how augmented reality works and the benefits and challenges it can present. This will require research, and more than likely, training from an outside resource who is experienced in augmented reality implementation. The final recommendation I can make, which is the most important, is making sure the end-users understand what augmented reality is, how to use and access it, and how it can enhance their job functionality and productivity levels. "Buy-in" is one of the most important factors in implementing anything new. It is important to educate the users so that they are confident, and maybe even excited, when it comes time for the technology to take center stage.

In conclusion, my vision of the future of training at my organization is to see it primarily move online and focus more on the design process so that end-users receive the best possible learning experience tailored to suit the needs of their individual job roles. Augmented reality provides a great starting place for this because it overlays online resources onto the users physical

environment. The benefits of online e-learning and augmented reality are plentiful, while the concerns are something that should be discussed prior to implementation. If my department is successful in implementing educational technologies, I believe our training program will set a new standard and pave the way for other training programs across the organization to follow suite.

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