

# Training and Education Must Leverage Technology and Innovation

■ By Maj. Gen. Larry D. Wyche



As we “build-down” our armed forces, and transform from an Army at war to an Army of preparation, military trainers and educators face a sweeping paradigm shift. The traditional learning environment is transitioning from that of solely instructor-delivered content to content available at the push of a button.

Our Army has benefited greatly from the increased use of technology throughout the force. In the same way, our training and education systems must leverage the advantages these new technologies and innovations provide. This will enable faster and more detailed training and allow instruction to occur anywhere, not just inside the classroom. Technology will allow us to update our training while maintaining the consistently high standards our force deserves.

Today’s Soldier is fluent in multiple forms of technology from an early age. Well-versed in social media, video games, and devices ranging from computers to smartphones, Soldiers have integrated these resources into their lives for everyday tasks. This fluency gives us both an opportunity and a requirement to modify training. We must employ these same technologies to approach this new generation, enhance training, and more efficiently use resources. Developing training products that use interactive games, e-books, and robust simulations is essential to relating to this new generation of Soldiers.

## Virtual Training

Interactive training using gaming consoles allows instructors and facilitators to replicate elaborate collective exercises within a classroom environment. Two examples of in-

teractive training used by the Ordnance School are “Cave Ops” and “Ammunition Operations.” Cave Ops is an e-learning product used to teach explosive ordnance disposal (EOD) Soldiers about flyrock and cave demolition. Users can practice both doctrinal and innovative courses of action within multiple scenarios using videos and interactive gaming.

Ammunition Operations is a compilation of short scenarios that simulate real-world missions. Soldiers learn the importance of following ammunition regulations using lessons that cannot be replicated in live training.

Virtual simulations serve as extremely useful training aids, providing high levels of training in a short period of time. Also, simulations are extremely flexible and can be tailored to the learner’s knowledge level. Virtual simulations allow for multiple repetitions, which aid in building competence, and as the Soldier gains proficiency, the training level can be elevated in complexity.

## Apps

Mobile applications, or “apps,” provide several advantages for both units and individual users. Accessibility is greatly enhanced because materials are available on individual Soldier’s phones and other smart devices. Instead of relying on fixed computer stations, training materials can be accessed anywhere. Also, units can customize and update content.

A wide range of mobile apps are already available to the sustainment community. Mobile apps can be found by searching for the Sustainment Center of Excellence (SCoE) app developer, “SCoE Mobile” on

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Google Play, iTunes, or Mac App store. These apps range from publication and document apps to games and even full-fledged simulations of operations. Each application is formatted for various operating systems and built to function without connectivity.

In addition, the Combined Arms Support Command's Training and Technology Division has the capability to develop resources for both the operational and institutional communities to address any training or learning gaps. I encourage you to take advantage of this in-house capability to enhance your own unit's training and development.

### E-books

E-books are another valuable training and education media available to Soldiers through their smartphones and tablets. The Ordnance School developed a tool to help new advanced individual training Soldiers visually identify various munitions. The handbook displays 3-D models of individual pieces of ordnance in a safe and controlled environment. The application leverages each student's iPad, allowing them to study in and out of the classroom.

Another e-book project chronicles the operational experiences of warfighter logisticians gathered over the past 12 years of war. Contributors from the Soldier Support Institute and the Army Logistics University have shared invaluable individual and unit operational experiences. These stories are enhanced using videos and game simulations in order to pass these real-life experiences on to a new generation of Soldiers.

The Transportation and Quartermaster Corps are also using e-books to add value to activities and training within their organizations. The U.S. Army Quartermaster Museum commissioned an e-book to give readers a preview of the museum's content. Available for free on the iTunes store, the e-book gives users a look at various treasures the museum has gathered since its creation

in 1957. The book is part of an ongoing effort to preserve the history and heritage of the Quartermaster Corps.

The Transportation Corps uses e-book technology to distribute les-

ed for the Ordnance Basic Officer Leader Course is written and illustrated like a comic book and used to teach young officers how to recognize warning signs and take proper actions.

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sons learned and best practices to the force. Several notable lessons learned books are located in the history section of the Army Transportation School website, [www.transportation.army.mil/history](http://www.transportation.army.mil/history).

The most recent addition, "Convoy Ambush Case Studies," offers readers a look at transportation engagements from the Korean and Vietnam Wars. Because the books are available in PDF format, readers have access to the latest versions and the flexibility to view them on numerous devices.

### Enhancing Classroom Training

Not all learning can be mobile or offered through simulation. We must also use technology to enhance our institutional classroom capabilities. Instructional videos can supplement current classroom instruction and be used as study aids or refreshers for Soldiers in operational units.

A notable example is a video detailing the proper procedure for packing the T-11 Advanced Tactical Parachute System. Used by the Quartermaster School, this study aid improves a Soldier's knowledge of the rigging process and their understanding of what can cause malfunctions in the system.

Other commercially available tools can help to overcome the staleness of slideshow briefings and transform them into engaging presentations, quizzes, surveys, and courses. For example, the sexual harassment prevention training creat-

Other products, such as podcasts, allow operational units to augment home station training. Training and readiness can be greatly enhanced by allowing Soldiers to access training materials at home, in the schoolhouse, or in the field.

Our nation needs Soldiers and leaders who can think critically, solve problems, and rapidly adapt to change. We must use current technologies to continue to train our Soldiers to fight and win our nation's wars. We must aggressively pursue new technologies to enhance the experiences of our Soldiers and better relate to a more tech-savvy generation. Leveraging technology is critical to maintaining the high standards of training our Army demands.

We also must operate within a more fiscally constrained environment and prudently spend our allocated resources. By leveraging skilled in-house personnel and commercial off-the-shelf technology, we can provide the highest level of training and leader development at an affordable cost whenever and wherever it is required.

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