Leadership Introduction

Welcome to the first edition of the dL STAR (Supporting Training Awareness and Readiness) - formerly the TADLP Bulletin! This revised public awareness publication is a product of the newly formed integrated Army distributed Learning (dL) outreach team. The goal of the team is to ensure a unified Army dL message and promotion of a new and effective training paradigm. The dL STAR will distribute news from several Army dL programs including The Army Distributed Learning Program (TADLP), Distributed Learning System (DLS), Army Training Support System (ATSC), Army National Guard (ARNG), and United States Army Reserves Command (USARC), providing our reader base one source for their dL news.

The first months of 2006 have seen more exciting developments in Army dL. Fielding of the Army Learning Management System (ALMS) continues on pace; the approval and promulgation of a new courseware development contract-vehicle (distributed Learning Education and Training Program- dLETP) is underway; distribution of DA policy on use of dL in the Army has been finalized and sent out to all Army agencies and organizations; and planning is underway for development of the next version of the ALMS.

We’re pleased to present in this quarter’s edition an article on the Virtual Mobile Training Team (VMTT). The VMTT is an initiative by the Army Training Support Center that takes a new and exciting approach to dL courseware. The article follows the initiative from concept, through development and to delivery to train Soldiers in theaters of operation. The VMTT is an important step in the right direction of courseware development for training Soldiers and supporting an Army at war. This major success is yet more proof that dL is important for training troops in a combat theatre! See the article in the Training Development section for more information on this great success!

Your comments and suggestions are welcome; we’re here to serve YOU! Email army.dl@us.army.mil with your input and inquiries.

COL James C. Markley
TPIO, TADLP
Training Development

Learning with Adaptive Simulation & Training (LAST) Army Technology Objective (ATO)

Army Trainers lack the necessary tools and methods to rapidly create the relevant virtual simulations which reflect lessons learned in the Contemporary Operating Environment (COE). Current computer generated forces, avatars, and simulations do not represent the plethora of behaviors shown by today’s asymmetric threat nor do they integrate the effects of the political/cultural environments on military decision making. The limited ability of today’s simulation tools and methods (e.g., game engines, authoring tools, intelligent tutoring, story management, virtual coaching, graphics, etc.) prevent trainers from being able to rapidly create/modify COE-relevant scenarios. Current computer models fail to adequately represent realistic human behavior or political/cultural effects in virtual simulations.

The LAST ATO addresses this issue and will allow the creation of more effective future training systems and better address the operational needs identified by combat-experienced Soldiers and leaders. The research will leverage the unique abilities of the primary partners: the Research Development and Engineering Command (RDECOM) Simulation and Training Technology Center (STTC); the Army Research Institute (ARI); and the Army Research Laboratory (ARL) Human Research and Engineering Directorate (HRED). The work is carried out by the Institute for Creative Technologies (ICT) under a contract from RDECOM. HQ TRADOC’s Training Development and Delivery Directorate (TDADD) is the Army sponsor.

The LAST ATO will leverage technologies refined in other ATOs, such as: the Asymmetrical Warfare Virtual Training Environment ATO; the Enhanced Learning Environment with Creative Technologies ATO; and the Embedded Combined Arms Team Training and Mission Rehearsal ATO.

Currently, virtual simulations are costly to build, and take a lot of time to create – typically 18-24 months. When completed they are relatively inflexible and difficult to modify for new situations. In addition, they are limited in the depiction of political and cultural attributes with limited computer generated force behaviors. The instructional applications are essentially limited to practicing skills.

Future virtual simulations will employ new tools, models and methods being developed under the LAST ATO. This ATO will focus on reducing both the cost and time required for development with far greater flexibility when modifications are needed in response to COE lessons learned. The computer generated forces will exhibit dynamic behaviors, within dynamic political and cultural attributes. All of this is wrapped within pedagogically sound instruction and practice environments.

The research and development effort will focus on two major areas in support of the Training and Doctrine Command (TRADOC) schools and developers. First, it will focus on developing the pedagogical design and enhanced tools/methods for rapidly creating/modified COE-relevant scenarios in virtual simulations. Second, the research will develop enhanced virtual entities, behavioral models, and political/cultural effects in integrated virtual simulations. These efforts will produce improvements in instruction/training, decision making, and learning retention through the use of a critical incident scenario library, the presentation of increasingly difficult scenarios in a training environment (gated training), and through enhanced methods of performance assessment and feedback to the trainee. The LAST ATO will produce improvements in instruction/training, decision making, and learning retention through the use of a critical incident scenario library, the presentation of increasingly difficult scenarios in a training environment (gated training), and through enhanced methods of performance assessment and feedback to the trainee. The effort will use a negotiation scenario and incorporate: a dialogue manager (DM) for interactions between the Soldier and the on screen characters; extensible artificial intelligence (XAI) to guide the after action review; Smartbody for animations; and PsychSim to guide the negotiation and interject both political and cultural attributes.

Milestones:

- FY05: Developed scenario task list based on cognitive task assessment; developed the pedagogical design for the user environment; and developed and validated the concept for the single user module practice environment for bi-lateral engagements.
- FY06: Identify initial set of tools, methods, and behavioral models; ICT will demonstrate ability to integrate with a single-user module providing training in bi-lateral negotiation. Deliver prototype to Army School for Command Prep in July 06.
- FY 07: Continue to develop tools, methods and models. Integrate in a multi-user module and deliver to Standard Completion Program 4th Qtr, FY07.
- FY08: Conduct war fighter experiments and assess effectiveness of single- and multi-user prototypes.

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Army National Guard Training Development Process

Army training for the Army National Guard (ARNG) is led by National Guard Bureau’s Army Training Division (NGB-ART). With today’s Operational TEMPO (OPTEMPO), Soldier and unit readiness has been difficult to achieve using resident training, primarily because of lack of time and funding. The NGB-ART has a branch that focuses on addressing these obstacles using Distributed Learning (dL) training solutions, led by LTC Bargfrede.

Sometimes a proponent school (i.e., Armor), or an ARNG Regional Training Institute (RTI), or even a commander identifies the need for a dL phase or course to fulfill a training requirement. This training can be Military Occupational Specialty Qualification (MOSQ) for reclassification, a Professional Military Education (PME) requirement, or a Functional area (i.e. HAZMAT).

Once the request is defined, the requestor should check with DoD resources to see if it already exists in another area (i.e., ATTRS). If it does not exist, contact NGB-ART-DL for coordination with the applicable proponent school(s). NGB-ART-DL will work with both the requestor and the proponent school(s) to validate the requirement and recommend a development plan.

NGB-ART-DL Supports Unit and Soldier Readiness

Distributed Learning (dL) can help facilitate training of Soldiers and units; training methods and technology are a means to that end. Soldiers can accomplish internet-based dL wherever they have access to a computer and the internet. Computer-based training only requires a properly configured computer. Other dL is video-based and is received at a local dL classroom.

Distributed Learning (dL) can be instrumental in supporting the Army Force Generation (ARFORGEN) model and can reduce Personnel TEMPO (PERSTEMPO). Individual training is a key to the first two years of the Reserve Component (RC) ARFORGEN model.

Eighty dL courses and hundreds of dL products are available to support the individual training phase (i.e., 21B Combat Engineer, 42A Personnel Information Specialist, 91W Health Specialist) dL will help the commander reduce the amount of travel cost when Soldiers are at resident training, and therefore help speed the Military Occupational Specialty-Qualified / Non-Commissioned Officer Education System recovery of the unit after a deployment.

Distributed Learning (dL) can also support collective training. The Battle Command Training Center located at Camp Dodge, Iowa, along with the Training and Doctrine Command is working on developing a methodology to conduct individual and collective digital battle command training on the various Army Battle Command Systems. The ARNG recently used technology to distribute the Exportable Combat Training Capability (X-CTC). Distributed Learning (dL) provides sustainment training to Soldiers in the ARFORGEN available phase or to deployed Soldiers through thousands of training products available through the Army Training Information Architecture Reimer Digital Library. In addition, thousands of self-development courses are available through Army e-Learning.

“The OPTEMPO and PERSTEMPO have increased to the point that in order to maintain a Soldier’s qualifications, it is necessary to provide training on a more accessible basis,” said MAJ Castells during the NGB-ART-DL video filming. “dL is all about accessibility to the Soldier.”

For ARNG Soldiers, the PERSTEMPO associated with increased Army operations is added to employer time constraints and geographical dispersion. NGB-ART-DL is focused on implementing dL to improve access to training, enhance readiness, reduce PERSTEMPO, and support Army operations.

For more information on ARNG dL training and courses, visit www.us.army.mil; My Training

POC for the NGB-ART-DL courseware development process - Mr. Dave Robinson (703) 607-736 or david.e.robinson@ng.army.mil

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Virtual Mobile Training Teams (VMTTs)

VMTTs are here. The Army Training Support Center (ATSC), along with the Ordnance Center and School and its Battle Damage Assessment and Repair (BDAR) Executive Agent team, worked with four contractors to field a VMTT in 90 calendar days. The project conducted from Iraq, Fort Benning, and Aberdeen Proving Ground (APG) was a success. Six students trained using asynchronous courseware on the Stryker tire followed by a synchronous remote one-on-one mastery test conducted by a BDAR instructor located at APG. The success of this VMTT positions Training and Doctrine Command (TRADOC) to support rapid fielding of equipment.

The VMTT Background

Mobile training teams (MTTs) have been used for years as a means to fill in training gaps, mainly on equipment, for Soldiers going into or already in harm’s way. These MTTs were a vital part of TRADOC, providing agile training for our forces. MTTs filled an extremely important need for Soldiers going to Afghanistan with landmine equipment on which they had not been trained. MTTs deployed from the Engineer School’s Counter Explosive Hazards Center to Afghanistan filled that on-the-ground training need until standard institutional training could fill in the training gap.

MTTs come at a cost. The training subject matter experts (SME), are a small group with specialized expertise on the equipment and doctrine. These SMEs often reside in a school where they also are needed to train the standard courses for students who may later be deployed.

This creates a challenge for TRADOC; how can TRADOC help the Army provide both the long term requirements of institutional training which will embed knowledge within the Force, and the short term requirement to get deploying Soldiers trained now? Training solutions need to match the rapid fielding of the Department of the Army’s rapid equipment fielding team.

All of these converging factors led to ATSC developing and funding a VMTT to demonstrate how technology might possibly enhance equipment training for deploying and deployed Soldiers by allowing the SME to train Soldiers at a distance.

ATSC identified the Stryker vehicle as rapid fielding. Conducting the BDAR on the Stryker tire was particularly challenging for Soldiers based on the Center for Lessons Learned at Fort Leavenworth.

The assessment and repair of the Stryker tire became the focus of the VMTT project. Two other challenges in developing the VMTT were the results of the technology available and providing the technology capable of reaching deployed Soldiers with just-in-time training linked to a SME for collaboration and testing.

The VMTT Methodology

ATSC put together a team composed of the BDAR Executive Agent, Ordnance Center and School, and four contractors to provide the various aspects of the courseware development. One provided program overwatch (Camber), one provided the project lead and instructional design strategy (C2), one provided the 3D learning objects that had to be interactive in an asynchronous and synchronous environment (NGRAIN), and one provided the integration of collaborative tools to link the asynchronous courseware with a synchronous remote capability that was also secure (CollabWorx).

Using NGRAIN interactive 3D representations of the Stryker vehicle as the center point of the training solution, C2 blended self-paced, computer-based training with collaborative, web-based instruction, creating for the first time a VMTT. The first segment of the training is divided into four standalone lessons, each of which Soldiers complete at their own pace either via the web or CD-ROM. The lessons deliver scenario-based instruction, allowing Soldiers to view and fully interact with the Stryker vehicle in the 3D environment.

The second segment of the training consists of a live lesson with VMTT BDAR instructors, accessible via the CollabWorx web-based interface that was developed and debugged in less than the 90 calendar days. Soldiers can schedule one-on-one collaborative sessions with instructors as they go through the asynchronous lessons; then they can schedule their mastery test through the same collaboration tools. Both the instructor and the student can manipulate the 3D objects in real time. This is done for reinforcement, remediation, or for testing. This provides the ideal virtual training environment for equipment, when training is urgently needed and the subject matter experts are limited in numbers. The validation of the courseware took place on 22 September 2005, less than 90 calendar days after the kickoff of the contract. Six non-Stryker Soldiers participated in the testing of the courseware (two in Iraq using ATSC’s deployable classrooms, two in Fort Benning, and two at APG). Part of the project was to determine if any Soldier could learn from the content and delivery, not just Stryker training Soldiers. The Soldiers took the asynchronous lessons followed by a scheduled one-on-one mastery test administered by the instructor located at APG. Students at APG were not in the same room with the instructor. After the training, each student completed a lengthy questionnaire to determine the training effectiveness from the user’s standpoint. All students received a GO on the mastery test.

VMTT Project is a Success

- Developed task-based interactive 3D-enhanced training content within 90 calendar days in response to new training requirements from the field.
VMTTs (cont. from pg. 4)

- Delivered mission critical BDAR training to Soldiers in the field that allows virtual hands-on practice.
- Reduced the need for instructors to travel, while providing Soldiers with anytime, anywhere access to training content and instructors.
- Improved the effectiveness of the computer-based training by immersing Soldiers in a scenario-based simulated environment.
- Increased Soldier confidence in ability to perform BDAR tasks.
- Mailed fifty copies of the asynchronous courseware to various schools who have asked to see it, spreading the lessons learned on this type of courseware.

Recommendations for Follow-up

As with any project, follow up actions need to occur to leverage lessons learned, both good and bad:

- More projects will be developed to use this training strategy and the technology to test the development process and the technologies (six students is not enough to draw valid conclusions). Ordnance School has identified two other possibilities that could benefit the operational forces (fuses and air conditioners). Improvised Explosive Devices (IEDs), with their associated equipment, are another possibility. Much will depend on funding during FY06 and FY07.

- TRADOC needs a simplified process for software approval for use in courseware. A major challenge during the development and implementation of this project was the download of the free Knowledge Mobilizer that enabled the 3D objects to work. Each installation had to provide approval. The software is already approved for free distribution after its use at Fort Leonard Wood, MO, in a brake simulation project. These software challenges have plagued distributed Learning (dL) efforts since the inception of the program in the 1990’s, but the problem has become worse, not better.

- Clear definition of using the courseware after proof of principle needs to be clearly defined. The courseware mastery test will be self-paced and tied to the Army’s Learning Management System (ALMS). As the courseware is currently configured it will always require an instructor. This will not be necessary after the initial deployment. Making the courseware with a long-term institutional solution should be something that is resolved up front, if possible.

POC for VMTT - Dr. Connie Wardell, ATSC, Director, Individual Training Support (757) 878-4516, connie.wardell@us.army.mil or Ms. Carol Bushong, ATSC, Courseware Manager (757) 878-2442 or carol.bushong@us.army.mil.

Army Battle Command System (ABCS) Training

The ABCS training provides an excellent broad overview of the ABCS and associated components, and how they are interrelated or connected. This training is highly recommended for those that work with ABCS for the first time, and is also recommended as a refresher for all other users. An executive overview of ABCS training is at the following link: www.tadlp.monroe.army.mil.

POC for ABCS training - Mr. David M. Bowman, Combined Arms Center – Training, DSN: 552-7625, (913) 684-7625 or david.bowman@us.army.mil. Further inquiry may be directed to Ms. Glenna Dobie, Training Development and Delivery Directorate, Chief Program Integration, DSN: 680-5542, (757) 788-5542 or glenna.dobie@monroe.army.mil.

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In response to demand, the U.S. Army recently announced the addition of Tagalog (Filipino) and Farsi II to its catalog of foreign language training courses available to Army personnel via Rosetta Stone®. The additions bring the number of foreign language learning courses available to all active Army, National Guard, Reservists and Department of Army civilian personnel worldwide to 30 via Army e-Learning on the Army Knowledge Online.

Integration of Rosetta Stone into Army e-Learning is a tremendous success. From Rosetta Stone’s date of availability November 7, 2005 through March 2006, over 34,000 users accessed the courses more than 95,697 times and completed 33,034 units. The top five courses accessed are: Spanish (Latin America), Arabic, German, French and Italian.

According to the U.S. Census¹, Tagalog has grown to become the sixth most frequently spoken language in the United States. The need for advanced instruction in Middle Eastern languages prompted Rosetta Stone to expand its Farsi offering to Level I and II.

“I am currently studying Arabic with the Rosetta Stone program. I must say that I was very leery about even being able to learn the language at all, much less on-line,” says Bryan D. Zeski, 1LT, Executive Officer, FOB Warhorse, Baqubah, Iraq. “But, curiosity and boredom came together here in Iraq and I gave the Rosetta Stone Program a shot. Just after the first lesson, I felt much more comfortable with the language – both auditory and written. I have told my Soldiers about the program and its ease of use and speed at which you can learn the language. At first they didn’t believe me, but when some of them tried it, they also found it very effective.”

Rosetta Stone: The Fastest Way to Learn a New Language

Rosetta Stone’s immersion training method uses thousands of real-life color images to convey the meaning of each spoken and written phrase in the program. The program’s sequenced structure, use of native speakers and instantaneous feedback teach new languages without memorization, translation or tedious grammar drills.

With Tagalog Level 1, the Army expands its programs to include 30 different languages used throughout the world. In addition to Tagalog (Filipino,) Rosetta Stone is offered in Arabic, Chinese (Mandarin), Danish, Dutch, English (U.K.), English (U.S.), Farsi (Persian), French, German, Greek, Hebrew, Hindi, Indonesian, Italian, Japanese, Korean, Latin, Pashto, Polish, Portuguese (Brazil), Russian, Spanish (Latin America), Spanish (Spain), Swahili, Swedish, Thai, Turkish, Vietnamese and Welsh.

For additional information on how to access Army e-Learning, log onto http://www.us.army.mil; My Education; You must have an AKO account to access the system.


POC for Army e-Learning – Mr. Stan Davis, PMO DLS, Deputy PM DLS and Army e-Learning Project Officer (757) 369-2901 or Stanley.c.davis@us.army.mil

The dL STAR wants to hear from you!

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