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SECTION 1: Leadership

Welcome to Edition Nineteen of the DL STAR!

DL Teammates,

As we publish the 19th edition of the DL Star, I feel, as you probably do, that this year is fleeting! We are almost in the holiday season and we all look forward to family fun and holiday cheer. We have been quite busy here at TADLP to improve and modernize many aspects of the program. We have accomplished much this year, namely establishing the TPO Mobile in support of operationalizing the TRADOC Army Learning Model. This organization will evolve into an enduring organization as a TCM for Mobile. We have modernized our courseware nomination process and website and reduced functional testing timeline by 65 percent. Through your feedback, we greatly enhanced the Enterprise Content Development Capability (ECDC) to allow for more in-house

development. Lastly, the program is proud to announce the fielding of ALMS 4.0, a marked improvement over ALMS 3.0. We are upgrading the ALMS to improve its performance and provide a more positive user experience. A new graphic user interface personalized by each user will display courses in progress, assigned training, and upcoming mandatory training. We posted an announcement on most training websites and have produced an ALARACT to alert users of this upgrade and service interruption from 1700 14 November until 0800 24 Nov. As a measure of caution and to mitigate potential loss of individual training data, we are advising users to complete unfinished lessons within the ALMS.

This is our last edition of the DL Star before beginning new year, so I, along with the TADLP staff, take this opportunity to wish all of you a very safe & relaxing holiday season and a happy & prosperous 2015!

As always, if you have any questions, opinions, or articles you would like to share with the community, please feel free to contact us at:

usarmy.jble.tradoc.mbx.atsc-tcm-tadlp@mail.mil

We are proud to serve and support!

Helen A. Remily
TRADOC Capability Manager
The Army Distributed Learning Program

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SECTION 2: Training Development

New Smartphone Apps Increase Soldier Learning

By Charles Melton
Fort Benning, GA

In this article, originally printed in May of this year, the Warrior University's apps are a focal point. This "paperless" option is a hit among the students...who want to see more.

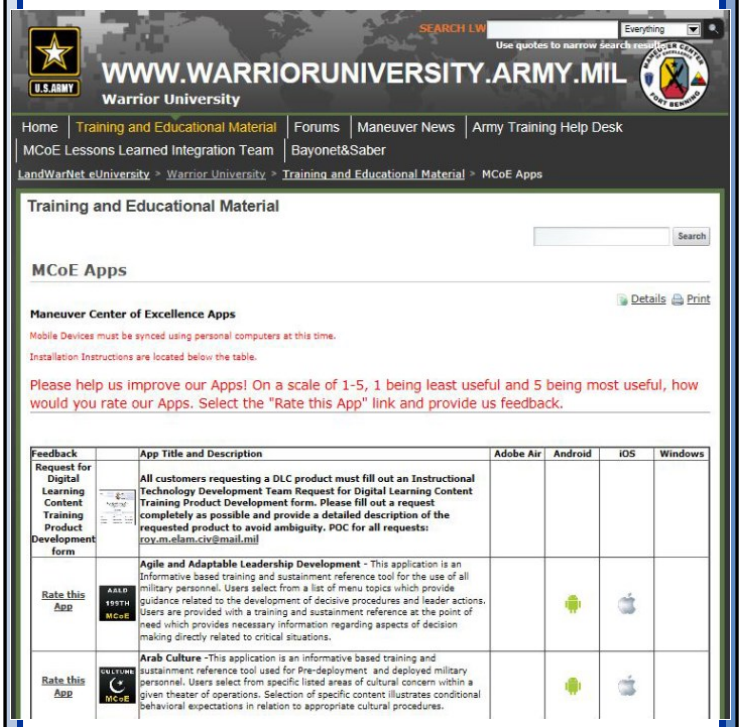
Unlike previous generations who lugged around bulky field manuals and training manuals, today's Soldier would rather find what he needs on his smart phone.

Instead of thumbing through a paper manual, the Soldier slides his thumb across the screen of his phone and opens the latest learning app from the Maneuver Center of Excellence Life Long Learning Programs Branch.

"A lot of people have been calling the younger generation the "YouTube generation," said Roy Elam, Chief of the MCoE Life Long Learning Programs Branch. "They want to go and learn something at the point of need."

That's where the MCoE Life Long Learning Programs Branch and its development team comes in to create smart phone applications that prepare Soldiers for challenges they might face in Route, Recon, Pathfinder, or Jumpmaster training, Elam said.

"We're finding that students are telling us the apps have helped a lot," he said, adding that most of the feedback about the apps comes



The Warrior University site has 22 apps, 16 interactive multimedia instruction courses and 15 training videos available to download and provide feedback on.

from students via Google Play. "Students have said, 'This is the real deal.' They would rather learn this way."

Every January, Elam and his team send requests to all commands asking what their needs are for the upcoming year. Those requests are prioritized by professional military education first, initial entry training second, and point of instruction third.

An example of PME is a class by the NCOA; an example of IET is 11B or Infantry basic training, and an example of POI is the Jumpmaster or Pathfinder school, Elam said.

The length of time required for the development of the app depends on how interactive it is, said James Ocheske, training specialist in the Life Long Learning Programs Branch.

As of May 21, there were 22 apps, 16 interactive multimedia instruction courses, and 15 training videos available on Warrior University, Ocheske said. In April, downloads on the Warrior University website reached the 10,000-download plateau and downloads on Google Play reached the 30,000-download plateau.

"As long as someone has an AKO account and password, they can go to Warrior University from their computer or phone and download the app," he said. "However, a lot of people don't know what Warrior University is, which is why we're trying to get the word out."

Once a person is logged into AKO, they need to go to https://www.warrioruniversity.army.mil/training-wiki/-/wiki/main/mcoe+dotd+training+materials and then click on Apps, IMI or Training videos, he said, adding that a person should visit all three links to ensure they get maximum use of the training available.

Although all the apps aren't currently available on all smart phone operating platforms, Ocheske said that beginning in fiscal year 2015, they will be available on IOS, Android, Windows and Adobe Air. ☙

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Department of Labor Rep Visits CASCOM, Talks Credentialing

By Keith Desbois
Combined Arms Support Command
Public Affairs
Fort Lee, VA

Documented credentials mean higher wages for transitioning veterans. See how CASCOM is taking a step in the direction of credentialing Soldiers.

Department of Labor representative Terry Gerton, Veteran's Employment and Training Service deputy assistant secretary for policy, toured the "Home of Army Sustainment" on May 20 to learn more about military training and the many credentialing initiatives that give service members a career boost in the civilian sector.

CASCOM is responsible for training more than 180,000 students annually through 541 courses taught by the Ordnance, Quartermaster and Transportation schools, Soldier Support Institute and Army Logistics University. It is also a major subordinate element of the U.S. Army Training and Doctrine Command.

Shortly after her arrival at Fort Lee, Gerton met with senior leaders at CASCOM to discuss the continued partnership between the Department of Labor and TRADOC in the development of credentialing and training programs for military troops.

Terry Gerton, Veteran's Employment and Training Service deputy assistant secretary for policy, tries the U.S. Army Ordnance School's virtual welder simulator during a May 20, tour of the "Home of Sustainment." Also pictured is Sgt. 1st Class John Valdez, an instructor at the school. (U.S. Army photo by Keith Desbois)

To date, TRADOC's Soldier for Life credentialing initiatives have resulted in more than 78 career-enhancing certifications and licensures across 43 military occupational specialties offered at CASCOM.

During the meeting, Gerton emphasized the close working relationship between her department and the military. She discussed how the Bureau of Labor Statistics and their Occupational Information Network are critical to the research used by the Army to select the right credentials that not only enhance a Soldier's war-fighting readiness but also veteran transition requirements.

"Documented credentials mean higher wages for transitioning veterans," said Col. Reed Hudgins, CASCOM Credentialing, Certification and Licensing director. "A watercraft operator without credentials can get a job, but will earn about $38,000 per year. With documented credentials the number of job opportunities not only double, but also the starting salary (grows to) almost $70,000 per year."

The individual cost for each credentialing enrollment is less than $200, Hudgins added.

After the meeting, Gerton toured the Joint Culinary Center of Excellence, part of the U.S. Army Quartermaster School. She learned about military food service training and the partnership JCCoE has with the American Culinary Federation.

Military personnel attending the culinary school are given the opportunity to earn accreditation as chefs while performing their daily routines. The training curriculum coincides with ACF certification standards and can be continued at the service member's assigned duty station. ACF certification and credentials are certificates issued by independent agencies after they evaluate a Solder's knowledge, experience and skills. Soldiers must pass examinations that measure required skill sets that have been established by private industry, federal regulations or international standards.

Gerton's next stop was the U.S. Army Ordnance School where she learned about the many opportunities for service members to advance their skills through the Stryker Maintenance Course. While touring the facility, she viewed Soldiers training in hi-tech classrooms. Students in the course virtually troubleshoot problems with the vehicle using computer simulation before completing the hands-on portion of the training.

Gerton, a former ordnance officer herself, stated she is impressed with the interactive multimedia instruction that has been established for today's Soldiers.

Also providing a demonstration during the tour

was the CASCOM Technology Integration Branch. David Garrison, instructional design specialist, showed how his department uses existing gaming and application (app) technology to create virtual training environments. The apps enable students to enhance their training in a variety of subjects from their mobile and wireless devices.

***David Garrison, Combined Arms Support Command Technology Integration Branch instructional design specialist, center, explains to Terry Gerton, Veteran's Employment and Training Service deputy assistant secretary for policy, some of the applications created for mobile devices during a May 20 tour. The apps enable students to enhance their training in a variety* of subjects from their obile, gaming and wireless devices. (U.S. Army photo by Keith Desbois)**

They also design and create interactive training disks that can be used on the Xbox 360, Play Station 3, and other gaming consoles to simulate real-world missions.

Finishing her tour of the "Home of Sustainment," Gerton viewed the Allied Trades Course, which instructs Soldiers in welding and machining skills. Entry Level Welder credentials are offered to advanced individual training Soldiers at the completion of the course. The American Welding Society provides the criteria that a Soldier must accomplish to earn the certifications.

The credentials help Soldiers keep pace with their civilian business counterparts, and is also part of their continuing education while in the Army. The training keeps Soldiers up-to-date on the latest industry standards and provides self-paced development of job-ready skills as they transition to the private sector.

For the future, the Army's partnership will expand to include the Department of Labor's Office of Apprenticeship and Department of Transportation's Federal Railroad Administration. Together with the Army, they are working with private rail employers to train and certify newly transitioning Soldiers to replace the industry's aging workforce. ☙

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Battle Lab Assessing Smartphone Technology

By Charles Melton
Fort Benning, GA

The Maneuver Center of Excellence conducted experiments allowing leaders to receive real-time video and imagery during Urban Terrain training.

Staff Sgt. Vincent Kelly, of A Company, 1st Battalion, 29th Infantry Regiment, receives real-time imagery using the Small Unit Leader Situational Awareness Tool, during a Maneuver Battle Lab demonstration May 13, 2014, at McKenna Military Operations on Urban Terrain training area on Fort Benning, Ga. (Photo Credit: Charles Melton)

Soon, seeing what's around a corner or in a building could be as easy as the touch of a button on a smart phone for Soldiers on the small unit level.

The Maneuver Center of Excellence and the Maneuver Battle Lab are conducting experiments that allow platoon leaders and squad leaders to receive real-time video and imagery from multiple unmanned aerial and ground systems using the prototype Small Unit Leader Situational Awareness Tool, or SULSAT.

Soldiers demonstrated the technology May 13 at the McKenna Military Operations on Urban Terrain training area.

"It increases situational awareness and maneuverability," said Tony Carbone, Maneuver Battle Lab data analyst. "It also increases survivability because it allows Soldiers to use a robot to check for IEDs."

As part of the testing, Soldiers performed reconnaissance missions, with and without SULSAT, said James Faulkenberry, Maneuver Battle Lab project officer.

The goal was to see what impact the prototype made in Soldiers' situational awareness on the battlefield.

One controller, the tactical robotics controller, known as a TRC, receives imagery from the unmanned systems and sends it to the SULSAT, Faulkenberry said.

He said the SULSAT allows the platoon leader to move throughout his squad instead of looking over the shoulder of the unmanned aerial or ground system operator to receive a common operational picture of the battlefield.

"I like the capability," said Staff Sgt Vincent Kelly of A Company, 1st Battalion, 29th Infantry Regiment, who served as the squad leader during the testing.

"It can help clear routes and help determine which way to go," Kelly explained.

Kelly said the prototype's size is a definite plus, as it fits into a pocket or pouch and can be pulled out as needed when conducting a mission.

First Lt Brandon Slusher, also of A Company, said the SULSAT provides greater situational awareness while allowing him to more effectively maneuver his squads.

"You always make the best decision you can with the information you have and this gives me more information and greater confidence in my decisions," Slusher said.

The company commander sees the same thing the platoon sees from the unmanned systems, which results in less radio traffic during combat operations, he said.

As the operator of the TRC, Specialist Timothy McCoy, A Company, said the system is easy to operate and has its advantages during combat operations. "I can see it being especially useful if you're trying to get a foothold in a building in a village that you haven't been to before," he said.

One of the drawbacks to the prototype is its limited transmission distance that only allows the platoon leader to be a short distance from the TRC operator, Slusher said.

Kelly agreed with Slusher's assessment. "It's just the little things that are going to have to get worked out," he said.

In the future, the testing conducted at the Maneuver Battle Lab will be used to determine what tactics, techniques, and procedures will be adopted for the use of SULSAT and the hope is to eventually add the system to the NettWarrior system for use in future operations, Faulkenberry said. ☙

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Big Data and Its Implications for Training

By A.J. Mason
U.S. Army Cyber Center of Excellence
Fort Gordon, GA

This article looks at big data and examines implications for training, performance improvement, and skill sets of training professionals.

We all have at some point or another heard the term, “BIG DATA”, thrown around. A more focused probe questions the extent that we have considered the implications that big data has for training and performance improvement. Let’s ground the context of this conversation by looking at some definitions of big data.

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A Goggle search turned up numerous meanings for big data. These are some definitions that get to the essence of big data:

- **Big data** is more than simply a matter of size; it is an opportunity to find insights in new and emerging types of data and content, to make your business more agile, and to answer questions that were previously considered beyond your reach.

- **Big data** is the term for a collection of data sets so large and complex that it becomes difficult to process using on-hand database management tools or traditional data processing applications. The challenges include capture, curation, storage, search, sharing, transfer, analysis, and visualization.

- **Big data** is difficult to work with using most relational database management systems and desktop statistics and visualization packages. (Wiki)
- In 2012, Gartner updated its definition as follows: "Big data is high volume, high velocity, and/or high variety information assets that require new forms of processing to enable enhanced decision making, insight discovery and process optimization."[22]

Making a Case for Big Data

This brings us to the point that a case can be made for big data in the content of military training efforts. I offer that there is plenty of room to make a strong case for the utilization of big data as we go forward with the Army Learning Model and other performance improvement initiatives. As we shift from brick and mortar locations to more adaptable modes of learning and access to materials, business intelligence becomes of the utmost importance. We have to make better and timelier decisions in response to the demand for information and knowledge. Some of our information requirements have to be acquired and disseminated on a daily basis and others less frequently. This shift needs to be part of our change management strategy as we go forward. A shift of this magnitude also requires a transition from how we currently do business. It is critical to note Gartner's reference that big data will require new forms of processing to enable enhanced decision making, insight discovery and process optimization.

Data by itself is of little value until it is turned into information which can generate knowledge and we use it for the betterment of the organization. This means that first we need to decide on the information requirements and how we will use the information. This decision drives the data collection plan and the data reduction plan. Data becomes relevant in the greater context of identifying and understanding the full portfolio of issues. Data must have the currency and reliability applicable to the particular analysis being undertaken.

Analytics

The core driver in dealing with big data is data-based analytics. While this Big Data revolution is growing, the many organizations and individuals are still relying on traditional methods to make decisions such as hunches and intuition.

Analytics is driving new capabilities for competitiveness and effectiveness. Those analytics must be applied within the context of the specific issue or decision under consideration, the needs and intentions of the analysis, and the associated risks and opportunities related to the decisions that will rely on that analysis.

It is offered that one of the defining characteristics of big data is that it affords the discovery of new patterns, new correlations, and new insights, in turn creating even more data. In turn, data lifecycle is expected to be an area of exploration. Data should be evaluated as it is created to estimate its quality as well as it is created to estimate its equality as well as its utility.

Pundits of big data suggest that effective analytics requires compiling a full issues portfolio, known sources of business intelligence, and any need to discover new, untapped sources of intelligence. This challenges our presents posture as it relates to effective analysis of big data. Is it time that we move to integrate analysts into the process to manage the issues portfolio and focus the discovery process? I suggest that this should be added to the capabilities of the instructional systems specialist and others. Furthermore, this should be occurring at the organizational and institutional level. The process of discovery may reveal other possibilities.

What drives more focused analytics can be surmised as follows:

•Questions which cannot be answered adequately, or with enough confidence from existing information
•Suspicions that relevant circumstances exist that are not being discovered through more traditional analysis

Seeking answers to these questions and suspicions becomes part of the issues portfolio and targeted outcomes. This leads to the launching of management initiatives, programs and projects. New database technologies and applications, coupled with real-time analysis of big data, offer the creation of a dashboard to help training and performance improvement efforts function more efficiently and ultimately improve the well-being of the individual learner and organizations.

Developing a Big Data Strategy

Best practices indicate that big data must be managed within a formal data management discipline within a formal enterprise architecture program. A formal data management discipline includes data governance. Data governance, possibly the most critical function of data management, increases in importance with the growing diversity in data sources, data partners, and value chains.

Attaining returns on investment (ROI) via big data tugs at the intellectual aspects of change management. It is offered that managers and senior leaders must also develop new knowledge, skills, and attitudes. They must understand and embrace the real potential of big data. Leaders must develop and nurture an environment to see what's possible.

The picture painted for what successful leaders and other participants should be in the big data environment are individuals prepared to look beyond the current business model to see future opportunities that can be made available through big data. Big questions must be asked and the performance of the

organization must be challenged. We must be willing to take some risks. Analytics may reveal that what was assumed to be a success was a failure. We have to graduate becoming comfortable with the complexity that is inherent in big data and become adept at making the complexity easier to understand. Management must embrace the change that is inevitable through big data. A critical asset is leaders having the ability and courage to lead the organization through change. Traditional methods to make decisions have not delivered all of the mail.

Challenges:

On-the-job training and self-teaching may not be adequate in developing existing staff, particularly, if they “don’t know what they don’t know.” According to an Information Week report, a growing number of organizations are offering big data training and development through conferences, seminars, online courses, webinars, and certification programs.

Jeremy Howard, data scientist, believes that the key job requirements in data science are really curiosity, flexibility, and the willingness to learn. It is asserted that these capabilities that can be found in a many fields and job backgrounds. Interested individuals must educate themselves about big data and learn how big data will be a strategic driver for competitive advantage in their organizations.

A lot of money has been and still is being invested in data collection and data management. The return on investment still has not been realized in many instances. There is a huge strategic opportunity that is untapped in the data. How do we unlock it? The key is in smart people with access to the right tools. It has been offered that these people are hard to find. The McKinsey Global Institute, which did a study a couple of years ago, stated that the number one challenge for organizations in unlocking their data is the shortage of data scientists.

Insights into Big Data

Research conducted by MGI and McKinsey's Business Technology Office examined the state of big data and found the following seven insights:

1. Data has swept into every industry and business function and is now an important factor of production, labor, and capital.

2. There are five ways big data can create value:

a. Big data can unlock significant value by making information transparent and usable at much greater frequency.

b. As organizations create and store more transactional data in digital form, they can collect more accurate and detailed performance information on everything.

c. Big data allows ever-narrower segmentation of customers and can result in much more precisely tailored products or services.

d. Sophisticated analytics can substantially improve decision-making.

e. Big data can be used to improve the development of the next generation of products and services.

3. Big data will become a key basis of competition and growth for individual firms.

4. Big data will underpin new waves of productivity growth and consumer surplus.

5. While the use of big data will matter across sectors, some sectors are set for greater gains.

6. There will be a shortage of talent necessary for organizations to take advantage of big data.

7. Several issues such as privacy, security, intellectual property, and even liability, will have to be addressed to capture the full potential of big data.

The following are some scenarios where big data analytics could be helpful:

1. A question comes up about how strongly students feel about their ability to do their jobs after departing the school house. We need an answer in an hour. We know that this is a question on the end-of –course evaluations at all TRADOC schoolhouses.

2. Like you, I have seen the historical numbers that often detail information such as the number of products downloaded, training pages viewed, IMIs downloaded, training pages viewed over a period and the like. Our ability to do something with this static data is limited. I propose that this changes if we were privy to what was happening on a daily basis. We would then be able to detect spikes and decide if a larger organizational response was needed. A better picture of who were using the resources could be acquired. Additional Information could be pushed to learners to expand their capacity.

3. We want to know what was happening with students after they leave the schoolhouses and are with their units over a 30 – 90 day period. I propose that a lot of graduates are not doing very well because some schoolhouses do a better job preparing them than others. This is just a hunch that I have. Additionally, I do not think success is linked to

to the grades students made while in the schoolhouse. I am in the process of proposing a number of performance improvement initiatives.

This short list of scenarios illustrates that a wide range of possibilities can be addressed if we had the big data available and the capability to acquire analytics to get a better picture of the situation. Risks are involved in that what we have touted as being effective could be sat on its ear! A winner is that paradigm shifts could be more easily detected and given timely attention.

Conclusion

Big data carries many, big implications. We cannot afford to miss the boat by not investing in technology and personnel skill sets that allow for future leverage of big data capabilities within the training arena and beyond.

Avoid big data silos. The whole point of big data is to pull together a variety of data from multiple sources and investigate or discover new data relationships. This requires a review and possible upgrade to our architecture.

A shift in mindset must occur about how data can be used. Data can no longer be regarded as static or stale. Data is a raw material of business that can be used to create a new form of economic value.

Our ability to respond to demands of learners requires that we develop a deeper visualization of who they are and what makes them tick. Additionally, we need to make more timely higher level decisions in respond to what is really happening in our training domains. Ramifications of big data extend to what is happening in the operational domain, the institutional domain, and the self development domain.

Transition implies change. Change can be difficult under the best of circumstances. As former Chief of the Army, General Gordon Sullivan was quoted as saying, “intellectual change must precede physical change”.

Andrew (AJ) Mason is an instructional systems specialist at the Cyber Center of Excellence at Fort Gordon. AJ has a Masters in Instructional Systems Technology from Indiana University. AJ has extensive military and civilian experience and in the areas of needs assessment, process improvement, performance improvement, and training development. AJ Mason is in the Distributed Education Section and can be reached at andrew.j.mason4.civ@mail.mil / Commercial: 706-791-0744, DSN 780-0744.

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