I/ITSEC Recap Issue
The n**tsa** Newsletter

I/ITSEC 2015
The World's Largest Modeling, Simulation & Training Conference

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YouTube - New videos from I/ITSEC 2015!

Be certain to view all the latest videos (approximately 40) from I/ITSEC 2015!

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2016 M&S Leadership Summit
February 9, 2016 **TENTATIVE DATE**
Chesapeake, VA

2016 NMSC National Meeting
February 10, 2016 **TENTATIVE DATE**
Chesapeake, VA

MODSIM World 2016
April 26-28, 2016
Virginia Beach, VA

Simulation & Training Community Forum (STCF)
May 10, 2016
Dayton, OH

ITEC 2016
May 17-19, 2016
ExCel
London, UK

TSIS (Training and Simulation Industry Symposium) 2016
June 15-16, 2016
Orlando, FL

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Headlines from the Interservice/Industry Training, Simulation & Education Conference (I/ITSEC)

NTSA President RADM James Robb, USN (Ret) reviews I/ITSEC 2015

Fantastic!!! That is the most common response from attendees at this year's I/ITSEC 2015. My most sincere thanks to Brent Smith and Dave Hutchings and the entire planning and execution teams for a magnificent event. It was truly exceptional on all fronts. It is a team sport and the team was hitting on all cylinders for 2015.

I/ITSEC 2015 was a turning point in my tenure at NTSA. With almost 15,000 in attendance, we saw increases in every category of registration. We have been battling

Orange County Convention Center, home of I/ITSEC 2015

government conference attendance issues with an all out campaign to increase the visibility and value proposition for I/ITSEC. This year's tremendous outpouring from the government side was remarkable. Not only did government registrations increase by almost 650, we had two active duty four stars in the lineup. The number of senior leaders and decision makers present was quite obvious – and they stayed for several days. The easing of attendance policy was also evident with Air Force not forwarding an approval package at all, and bringing 50 engineers from Dayton for the first time in four years. We continue to work these issues extremely hard, but the trend is up and the outlook for I/ITSEC 2016 is extremely encouraging.

I/ITSEC 2015 was "theme led" and extremely relevant. Congressmen Scott and Mica reported that there is great support for national defense in Congress, and that they are working hard to stabilize defense funding. VADM Moran, the Chief of Naval Personnel, highlighted Navy's substantial effort to revolutionize Navy training. Waymon Armstrong, Founder and CEO of Engineering & Computer Simulations (ECS), gave an inspiring talk on the need to take risk in our pursuit of next generation technologies. The Flag/General Officer panel noted that we

Attendees flood in as I/ITSEC 2015 opens

have not "played hurt" (fought under a disadvantage) in conflict for a long time, and that we need to continually analyze the asymmetric ways our enemies will engage us in the future.

On Wednesday morning we had a very special event featuring the Commandant of the Marine Corps, General Robert Neller, and a dream team of senior Marine Corps Leaders. Their message was clear – synthetic environments are a key element of the future USMC training strategy.

Your I/ITSEC Program Committee put together another all star program that featured panels on JSF, Cyber, Energy and Medical Simulation. We also had a robust international agenda with speakers from around the globe. There were panels from Europe and new participation from the Asia Pacific Simulation Alliance, as well as lessons learned from Exercise Trident Juncture, the largest NATO exercise held since the Cold War. All of this was in addition to the 21 tutorials, 150 papers, and 7 professional development workshops that form the "Education" basis for I/ITSEC.

I/ITSEC 2015 featured a number of groundbreaking special events which sought to address the most significant national security challenges we face today. Operation Blended Warrior brought together capabilities from over 30 government and

industry entities in an LVC network on the exhibit floor, as they fought their way through challenging scenarios. Another major theme was Black Swan. Black Swans are low probability - but extremely high impact - events that would dramatically affect the global condition. We introduced this multi-year theme with dynamic presentations on Thursday, and will continue this thread into 2016.

NTSA continues to invest in technology that improves the attendee and exhibitor experience at I/ITSEC. This year we built on the success of our Show Management application that allows attendees and exhibitors to digitally interact with the Conference schedule and the "digital show floor." Attendees were able to "Plan your Show" by searching and sorting conference and show content in real time. The enhanced exhibitor profiles included highlights, videos and the ability to set up visits and interact with booth personnel.

The I/ITSEC exhibition hall hosted 469 companies and organizations this year. The international presence continues to be very strong, with new exhibitors from Austria and Saudi Arabia, and increased presence from Israel, France, and Turkey. In addition, we saw continued strong participation in

International Attendees plan their floor visit strategy

international pavilions with the European Training and Simulation Association (ETSA), Brazil, the Netherlands and Canada all represented in separate areas on the exhibit floor. The international program also included opportunities for international attendees to schedule meetings with government and industry.

The world remains a very dynamic and dangerous place, and support for our warriors and first responders has never been more important. At the same time our nation's economies, communications, social structures and critical infrastructure are being attacked in virtual ways and training and simulation capability must adapt and adjust to these trends. With this in mind, we are expanding the scope of I/ITSEC to include training and simulation related to defending the transportation, energy, manufacturing, business, and education domains. The demand for integration of LVC training, gaming and analysis into our core workforce skill sets has never been more important.

So thanks for joining nearly 15,000 of your teammates in Orlando for the largest training and simulation event on the planet. We are 15 years into the Simulation Century and the future for training and simulation is very bright. Start planning now for participation in 2016!

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Serious Games Showcase & Challenge

The Serious Games Showcase & Challenge (SGS&C) winners were recognized at the 2015 Interservice/Industry Training, Simulation and Education Conference (I/ITSEC) on Thursday, December 3. Eighteen finalist games were showcased on the floor during the four-day I/ITSEC event, where close to 15,000 attendees had the opportunity to play a diverse array of serious games related to medical communication, computer cybersecurity, forensics, lazy eye, retail management, and a variety of other academic, medical, and military topics.

The winners of the 2015 Serious Games Showcase & Challenge are:

1. Best Business-Developed Serious Game - Project Desal, Monkeystack (also this year's SimTecT winner)
2. Best Government-Developed Serious Game - MUM-T Strikeforce, U.S. Army PdM- Tactical Unmanned Aircraft Systems
3. Best Student-Developed Serious Game - Healthx, University of Utah
4. Best Mobile Serious Game - Project Desal, Monkeystack (also this year's SimTecT winner)
5. Best Social Media Crowdsourcing Game - Unsavory, University of Miami
6. Students' Choice - Particle in a Box: The Quantum Mechanics Game, George Institute of Technology
7. People's Choice - MUM-T Strikeforce, U.S. Army PdM Tactical Unmanned Aircraft Systems

The goals of the Serious Games Showcase & Challenge are to recognize excellence in the field of Serious Games, to stimulate creativity, and to generate institutional interest in the use of game technology and game-based approaches to training and education. For the last 10 years, the Challenge has provided an opportunity for game developers to put their work in front of some of the best gaming and simulation companies in the world. Submissions are developed by students, small and large businesses, and government organizations. The games can target training in any segment, including academic, corporate, or military.

"As we celebrate the 10th anniversary of the Serious Games Showcase & Challenge, we are amazed at the growth we've seen throughout the years, including the partnership with Orange County Public Schools (OCPS) and their commitment to the Students' Choice award, and the international partnerships that have developed with Australia's SimTecT conference and the Brazilian Independent Games (B.I.G.) Festival," said Kent Gritton, SGS&C founder. "We continue to see participants from previous years

returning to our Challenge, and that in itself says a lot about the experience and the benefits received by game developers."

"Every year our developers raise the bar on innovation, and 2015 is no exception," said Lisa Scott Holt, Ph.D., this year's industry lead for SGS&C. "We had some added excitement this year because it's the first time for an international challenge partner game to win. We look forward to expanding our relationship with our international partners and adding others in the future." SGS&C finalists were reviewed by an esteemed panel of worldwide evaluators to determine the winners for each category. To learn more about the Serious Games Showcase & Challenge, visit www.sgschallenge.com.

About Serious Games Showcase & Challenge
The Serious Games Showcase & Challenge is the premiere venue for recognition of excellence in the field of Serious Games development. The Challenge prides itself on helping foster creativity and innovation in Serious Games. A partnership was formed in 2006 with the organizers of the Interservice/Industry Training, Simulation and Education Conference (I/ITSEC) and the National Training and Simulation Association (NTSA), and the Serious Games Showcase & Challenge has since been a growing staple of I/ITSEC.

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NTSA Modeling & Simulation Awards and Governor's Awards for Lifetime Achievement in Modeling & Simulation

NTSA presented its annual Modeling & Simulation Awards, as well as two Governor's Awards for Lifetime Achievement in Modeling & Simulation, at its annual M&S Awards Dinner at the Hyatt Regency Orlando on Tuesday, December 1. NTSA President RADM James Robb, USN (Ret), presented awards to a diverse group of teams representing the military, industry and academia.

2015 Governor's Award for Lifetime Achievement in Modeling & Simulation
Dr. Robert A. Sottilare, US Army Research Laboratory

Dr. Robert A. Sottilare, US Army Research Laboratory, was recognized for his lifetime contributions to the fields of modeling and simulation technology, and training research. For over 30 years, Dr. Sottilare has been both a leader of M&S organizations and a contributor to simulator design and training methods. Dr. Sottilare's work in reconfigurable simulators, distributed simulation experimentation, demonstrations, standards and adaptive training has made major contributions to the growth and evolution of modeling, simulation and training.

2015 Governor's Award for Lifetime

Achievement in Modeling & Simulation

Mr. William F. Waite,
The AEgis Technologies Group, Inc. (Awarded Posthumously)

Mr. William F. (Bill) Waite is recognized for his many contributions to the M&S community, workforce, industry and market. Over a professional career spanning five decades, Mr. Waite was instrumental in the invention and evolution of M&S technologies, practices, and standards impacting a broad spectrum of M&S programs and activities, including simulation technologies evolution; simulation systems development; simulation verification, validation, and accreditation; simulation-based studies and analyses and systems engineering; and the development of hardware and software products supporting modern M&S practice.

NTSA Modeling & Simulation Award Winners

Acquisition
CAMEL (Concept for Advanced Military Explosion-Mitigating Land) Demonstrator Team, Pratt & Miller Engineering

CAMEL is a next generation concept design demonstrator showcasing technology to improve vehicular survivability and most importantly force protection from blasts, crashes, and rollovers.

Cross-Function
PhyCORE Team, Warfighter Performance, Naval Health Research Center

The Physiological and Cognitive Operational Research Environment (PhyCORE) team, a diverse group of clinicians and researchers, expanded a virtual reality walking and balance-based rehabilitation tool for injured warfighters into one that is now capable of promoting injury prevention and resilience.

Training
Office of Naval Research and MIT Lincoln Laboratory, Advanced Concepts and Technologies Team

The ONR and MIT team – a combination of scientists, government managers, mathematicians, PhD candidates, military, and video game designers, engineers, artists and programmers – was formed in 2013. Aiming to improve naval war fighting through better, faster decision making, the team developed an adaptable, agile, affordable virtual training space and data analytics capability which incorporates Machine Learning and Artificial Intelligence to optimize decision-making in complex operational environments.

Training
CAPT Kent Gritton, USN (Ret.),
Joint Training Integration & Evaluation Center (JTIEC)

CAPT Kent Gritton, USN (Ret), is recognized for his vision, leadership, and hard work in the formation, growth and evolution of the Serious Games Showcase & Challenge (SGS&C). CAPT

Gritton was instrumental in building and expanding the framework of the competition. Under his leadership, SGS&C has grown from nine entries with six finalists in 2006 to over 50 entries with 18 finalists.

A Game Changer for Serious Games

Game changer. Swiss Army knife or Holy Grail of serious games. Call it what you will. Autodesk technology is taking mission rehearsal and preparation to a fundamentally new level, as seen at I/ITSEC 2015.

Autodesk brings three new and vital innovations to serious games:

1. CAD-agnostic functionality
2. Bidirectional editing between engineering models and game engines
3. The new Autodesk® 3D game engine, Stingray

Here's how the Autodesk® portfolio excels for serious games. As a broad-spectrum engineering company, Autodesk offers data-driven design in AEC, BIM, manufacturing, and digital prototyping. Experience in the engineering field helps Autodesk bridge into real-time simulation and training, building a harmonious relationship between engineering and the entertainment delivery mechanisms used for mission-driven simulation and training.

As the market leader in modeling and simulation, Autodesk enables users to infuse synthetic training environments with real-world, physical, component-based attributes. Autodesk also makes widely used modeling and animation tools for commercial video games. Using Autodesk survey-grade tools and simulation, serious game developers can:

Rapidly create real-world game environments	Build 3D models using terrain data from any major GIS source
Automatically generate massive real-world locations	Read data live from linked databases, BING® maps, or dozens of other data providers
Easily integrate varied data, including BIM CAD models and point clouds	Record animation directly or send to Autodesk modeling and animation tools
Use CAD data generated from LIDAR scans	Easily make use of game-ready photogrammetry models

Combined with Autodesk suites, it is now possible to **utilize nearly any CAD data in a serious game**. Autodesk® AnyCAD technology lets users natively and nondestructively open and edit a CAD model, retaining the parametric model. The model is decimated and linked to the game engine. **All edits are**

bidirectional—model updates are concurrently viewed in real time with the runtime engine. Edits are integrated, seamless, and cumulative. The modeling tools and game editor can even share live-linked viewpoints. What you see in the game editor is what you see in the modeling tool and vice versa.

Because the game environment is always 'alive,' it can be tested or used any time. There is no need to separately compile and distribute a one-way path runtime to perform testing. Game consoles, mobile devices, and PCs can be used to test simulation visuals with training objectives.

Autodesk Stingray has a state-of-the-art modern engine core that is lightweight, powerful, integrated, and unencumbered by legacy code. The UI is built on HTML5 and completely extensible. Users can program using flow (visual scripting) or the Lua scripting language. Stingray includes Autodesk's award-winning middleware —Autodesk® Navigation, Autodesk® HumanIK®, Autodesk® BeastTM, and Autodesk® Scaleform® technologies—that can maximize realistic lighting effects and produce convincing semi-automated forces controlled by artificial intelligence. Stingray also includes the Audiokinetic® Wwise® and NVIDIA® PhysX® products, natively supports the Oculus Rift product, and provides templates for VR-specific solutions, making developing virtual reality (VR) solutions amazingly simple.

For more information on changing the game for mission rehearsal and preparation, visit http://www.autodesk.com.

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Full Articles
HEADLINES FROM THE MODELING, SIMULATION
& TRAINING INDUSTRY

MODSIM World 2016
April 26-28, 2016
Virginia Beach, VA

MODSIM World 2016 is a multi-disciplinary international modeling and simulation (M&S) event that provides a unique opportunity to learn about new M&S applications and practices across diverse domains.

According to Michael Spitz, chair of MODSIM World 2016, the M&S focused event encompasses academics, industry, and the user community – including government.

"I/ITSEC is largely focused on training and education," he stated, "At MODSIM World, training and education is one track. We have other tracks in science and engineering, analytics and decision

making, and visualization and gamification."

"Those tracks are all equally important in our eyes," he continued. "Additionally, those tracks are cross-cut with themes or domains that use modeling and simulation; not just the military, but equally important, medical, manufacturing, shipping, and the complete education community from STEM through adult lifelong learning."

That cross-cut of domains with tracks forms the nucleus of MODSIM World.

Spitz said that there has been a MODSIM World event every year since 2007. All events have included impressive government and industry keynote addresses.

"Last year our government keynote speaker was Virginia Governor Terry McAuliffe and our industry keynote was presented by NASA," he said. "We have yet to confirm our keynote speakers for 2016."

Other unique aspects of MODSIM World 2016 include the first M&S Challenge Competition and the third year of the Entrepreneur Competition.

"An individual who has an idea can present it to a group of entrepreneurial judges who are known for their background," Spitz said.

"They judge the entrants on their ideas and then, when they have whittled down to a small group of finalists, we put them before the entire audience, with the audience now having a vote on which entrepreneur presented the best case and had the best marketing potential. And the winner receives a cash prize."

Spitz added that the smaller size of the event "gives people more opportunity to engage one-on-one with decision makers."

Complete details can be found at http://modsimworld.org/.

Modeling and Simulation (M&S) Challenge Competition at MODSIM World 2016

MODSIM World 2016 will feature a new event - the Modeling and Simulation (M&S) Challenge Competition. This competition will complement the already-popular Entrepreneur Competition.

MODSIM World 2016 wants to cultivate an environment where talented individuals can use the power of M&S to solve problems important to their community, government, business or industry sector. Developers, analysts, and subject matter experts can all participate in this unique competition and demonstrate the power of M&S.

Participating teams will have approximately ten weeks to develop a solution for a real world problem of their own choosing, using Modeling and Simulation.

To enter, simply submit a challenge competition abstract to

MODSIM World 2016. Selected entries will be invited to participate in the competition, leading to final judging at MODSIM World 2016, where awards will be presented to the winning teams. Rules and judging criteria are available at the MODSIM World website here.

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Rockwell Collins Opens New UK Center of Excellence

Rockwell Collins is marking its 60th anniversary in the United Kingdom with the official opening of a new center of excellence in Winnersh, Wokingham, to support its commercial and military customers.

Employees from the company's previous facility in Reading, approximately five miles away, have already begun working at the new building.

"The opening of this brand new facility in conjunction with celebrating our 60th anniversary is a demonstration of our continuous investment in the UK," said Colin Mahoney, senior vice president, International & Service Solutions for Rockwell Collins. "From this new center of excellence, we'll respond to customer demand by bringing to the market innovative capabilities in areas such as satellite navigation and networking."

The new building features 40,000 square feet of laboratory facilities with research and development space, plus 30,000 square feet of offices over three floors. It has been specially designed to host high-value engineering, business development, program management and shared service functions.

With three main sites at Winnersh, Burgess Hill and Crawley, Rockwell Collins currently employs over 480 people in the UK with exports representing over 75 percent of its revenues. Since 1955, Rockwell Collins has expanded its presence in the UK to provide a comprehensive range of aviation electronics, communications, and simulation and training solutions to governments, aircraft manufacturers and OEMs in the United Kingdom, Europe and around the world.

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Meggitt Launches Enhanced System to Further Expand Small Arms Training

United States and allied forces worldwide will soon have access to the newest and most advanced small-arms training system.

Georgia-based Meggitt Training Systems will introduce the FATS®100e, an evolutionary step forward from previous virtual-reality solutions, at this year's I/ITSEC, from Nov. 30 - Dec. 3 in Orlando, Florida.

The FATS100e system solution is an extension of the proven and popular FATS M100 and a major expansion in weapons training capability, introducing new features such as Crytek-based 3D lanes, automatic coaching and VBS3-based collective training. The 3D lanes provide visually realistic and highly detailed terrains and targets, including weather, and striking visual effects including wind-blown environments, birds in flight, dirt splashes and explosions. Automatic coaching has never been available in the small-arms training market, and collective training is new to the VBS3 system.

The new system delivers solid weapon handling and shot placement analytics, coaching tools that automatically highlight trainee results for reinforcement or correction, and enhanced graphic capabilities for an all-encompassing immersive training platform. With the new features and expansions, FATS100e will offer unmatched training advancements delivered per US Army and US Marine Corps instructional requirements, including the latest technological developments to meet the needs of combat forces worldwide.

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Elbit Systems to Deliver CTS to Poland's Special Operations Forces

Elbit Systems has been chosen to deliver live combat training system and equipment to the Special Operations Forces (SOF) of Poland.

The combat training system (CTS) is an advanced, highly-realistic simulations-based trainer that has been specifically designed for marines and SOF, ranging from individual soldiers up to full-size units. CTS can be used to simulate a wide array of operational conditions and real-world elements, including those found in urban, rural and indoor environments.

As part of the project, Elbit Systems, with its partners, will deliver live-fire training suites for warriors, vehicles and vessels, simulation equipment for use in training facilities, as well as inert explosives (simulants), grenades and suicide bomber kits. In addition, it will provide Digital Video Recording (DVR) and data-link capabilities that enable network training to and from a centralized management control, across all training forces and equipment. This will make it possible to record, monitor, and post-analyze the entire training process.

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New Zealand Defence Force Commences SH-2G(I) Simulator Training

CAE has commenced the provision of maintenance and support services on the New Zealand Defence Force's (NZDF) SH-2G(I)

helicopter synthetic training devices.

The NZDF recently recommissioned a SH-2G(I) full mission flight simulation (FMFS), which was acquired as part of the acquisition of ten SH-2G(I) helicopters. Over the past year, CAE installed the SH-2G(I) FMFS as well as six SH-2G(I) part task trainers at Royal New Zealand Air Force (RNZAF) Base Auckland. CAE New Zealand Pty Ltd. with initial assistance from its subcontractor Beca Applied Technologies Ltd, will provide on-site maintenance and support services for the next 15 years.

Over the next year, CAE will also perform major updates to the SH-2G(I) FMFS, including updates to the host computer, sensor systems, tactical environment simulation software, and the instructor operator station. The SH-2G(I) FMFS will also be upgraded using the latest-generation CAE Medallion-6000 image generator and Common Database (CDB) architecture.

AEgis Technolgies Announces CACCTUS Contract Win

The AEgis Technologies Group, Inc. has announced their role as a key subcontractor to Riptide Software on their award of a five-year $47 million contract by the United States Marine Corps (USMC) to continue its support of the Combined Arms Command and Control trainer Upgrade System (CACCTUS) program. This is Riptide's second CACCTUS award from the USMC, who previously awarded Riptide Software the CACCTUS contract in 2011 for $44 million.

Riptide leads an accomplished team, comprised of Leidos, General Dynamics Mission Systems, AEgis Technologies, AVT Simulation and Phoenix Logistics, Inc., that will continue to provide Post Deployment Software Support (PDSS) for CACCTUS sites, while continuing to improve CACCTUS to ensure the system reaches Full Operational Capability (FOC) through innovations offered by "Team CACCTUS". AEgis currently provides the Modus three-dimensional (3D) stealth view to CACCTUS, and will be responsible on the new contract for providing and integrating next-generation visual solutions that will meet the FOC requirements.

Thales Wins French Navy Simulator Support Contract

Thales has won a six-year contract from the French Navy to provide through-life support (TLS) for almost all of the Navy's simulators. The contract with the Navy's fleet support department (SSF) calls for Thales to support 41 simulators at six naval facilities in France.

The simulators cover a broad spectrum of operations and all deployment contexts, from shipboard system maintenance to surface vessel crew training, as well as firing simulators for the

Mistral missile, 12.7 mm and 20 mm guns and other weapons.

The devices are used to train the crews of all French Navy surface vessels, including its multi-mission frigates, air defence frigates and the Charles de Gaulle aircraft carrier. The new TLS contract covers simulators delivered from the 1990s to today, including systems currently on order.

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Lockheed Martin Receives Regulatory Approval to Close Sikorsky Acquisition

Lockheed Martin has received the final regulatory approval needed to close its acquisition of Sikorsky Aircraft from United Technologies Corp. The completion of the regulatory review by the Ministry of Commerce of the People's Republic of China marks the end of a comprehensive regulatory review process in eight jurisdictions.

This final regulatory approval brings the company a step closer to completing Lockheed's acquisition of Sikorsky which "brings a legacy of innovation performance that perfectly complements Lockheed Martin's portfolio," according to Marillyn Hewson, Lockheed Martin chairman, president and CEO. Lockheed says acquiring Sikorsky will help expand its core business into helicopter production and sustainment.

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U.S. Army TRADOC Opens App Store

The US Army's Training and Doctrine Command, or TRADOC, opened its own online app store to bring training and information to Soldiers where they are most likely to read it: online and on the move.

"Most Soldiers have a mobile device of some sort: a cell phone, a tablet, or something," according to Lt. Col. Joseph A. Harris Jr., TRADOC capability manager for mobile learning, or TCM-M, who says they use these devices daily to get the information they need – usually through a mobile app of some kind. He says by opening its own app store, the Army is trying to ensure that it and its soldiers are using the same apps – so that they can get out current information to them.

The newly-created TCM-M created the "TRADOC Application Gateway," or "TAG," will host unclassified, non for-official-use-only apps and interactive digital publications.

To access the app store, Soldiers can log into www.adtdl.army.mil with their Army Knowledge Online login name and password or they can use a common access card to access the site.

Right now the TAG hosts only a handful of the TRADOC-produced apps that are available elsewhere in commercial app stores, Harris

said. Titles on an Android app store, for instance, include "DFAS Info2Go," "GoArmyEd," "Performance Triad," and "Army Comprehensive Doctrine." There are many others on other commercial app stores.

Matthew MacLaughlin Jr., TCM-M's senior mobile instructional design specialist, said the few apps up now on TAG are part of the evaluation for the site, but by January, the Army expects TAG to have 100 to 150 apps that support three mobile platforms.

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www.itec.co.uk

Registration is now open for ITEC 2016
Next year, ITEC is set to welcome over 2,200 delegates from the international military training, education and simulation community to London for the first time since 2012. Book today to reserve your place and take advantage of the Super Early Bird rate, saving up to £500 on the standard ticket rate.

Why You Should Attend ITEC 2016

- 95% of exhibitors would recommend ITEC to their colleagues in the industry
- 75% of visitors are decision-makers
- 78% consider ITEC as being the ideal platform to discover the latest technologies in terms of military training and simulation

Reasons to attend

- Discover the latest technology and innovations affecting the sector
- Source new suppliers who can improve your product's or operations' flexibility
- Network with key industry players, suppliers and integrate with the entire training and simulation community
- Learn about developments for the future at the conference.

ITEC is the annual forum where representatives from across the military, industry and academia connect and share knowledge about military simulation, training and education community. Presenting a unique overview of the industry's latest innovations, the event provides visitors with a platform to discuss developments in this evolving market and exchange ideas about future requirements for military training and simulation. Established for over 26 years, ITEC offers a world-class exhibition (free to attend) and conference showcasing the very latest products and services from leading organisations, thought provoking papers as

well as unique networking opportunities. Join the ITEC community on 17-19 May in London. For more information visit www.itec.co.uk or for details on how to be part of our exhibition contact daniel.mortimer@clarionevents.com.

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Royal Aeronautical Society Flight Simulation Conference

Advances in Simulation – The Future of Flight Simulation
7-8 June, 2016, London, UK

Please find below the call for papers for the 2016 Summer Conference from the Royal Aeronautical Society Flight Simulation Group.

http://www.aerosociety.com/FSGJune16

This annual event draws in the foremost experts and key decision makers from the Flight Simulation community worldwide.

Take this opportunity to deliver to them your perspective on the future of simulation.

For ease of reading, a PDF version of the Call for Papers is available here.

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Prime Minister's Announcement on Innovation Welcomed by Simulation Australasia

Upon review of the 28 initiatives included in the Innovation Statement it is abundantly clear that Simulation Australasia is uniquely positioned to provide access on a remarkable scale. Our extensive membership with SMEs, Industry, Universities, Health, Mining, Defence, Transport, and Modelling, our continued research with global impact, and the fact that we can bring it all together with our Australasian Simulation Congress all lie at the very heart of the Innovation Statement.

As an organisation, Simulation Australasia is acutely aware of the need to link research to effective industry outcomes and see it as a fundamental objective of our Specialist Communities.

Simulation is a Productivity Tool that drives Economic Development!

Our long and continued support of research allows us to directly engage with industry to facilitate meeting these goals through the use of simulation.

The Simulation, Training, Modelling and Decision Support sectors continue to expand rapidly, so that they are now no longer thought

of as just enabler technologies. They are disrupters, changing the way Governments can operate more effectively, how business is done and how industries think about and prepare for the future. We are at the forefront of digitalisation in industry.

As an organisation, we provide a dedicated platform for industry development, business growth, training, discussion and distribution of information about Simulation, Modelling, Training and Decision Support.

This is a time of transformation and a time in which the impact of Simulation to create prosperity can be appreciated.

I urge that you investigate the opportunities that are outlined across the Government's Innovation Statement.

Full details of the Government's Innovation Statement can be viewed here:

http://www.innovation.gov.au/

John Stewart
Chief Executive Officer

Simulation Australasia

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STEM News

This April: Join Some of America's Most Prominent Companies at the Festival & Expo to Inspire Students in STEM!

The USA Science & Engineering Festival will take place April 16th & 17th at Walter E. Washington Convention Center in Washington, D.C. Learn more here.

Corporate America represents one of the nation's largest supporters and employers in STEM. And at the USA Science & Engineering Festival & Expo in April you'll experience the collective power of these firms when they gather as hands-on sponsors and exhibitors to wow the next generation of innovators in science and engineering! Companies such as: Lockheed Martin (the Festival's founding and presenting host), MedImmune (presenter of the Festival's Extreme STEM Symposium), InfoComm International (presenter of the Festival's Nifty Fifty school visits), Booz/Allen /Hamilton (presenter of the Festival's Career Pavilion), Chevron, Illumina, Forbes/Wolfe, Genentech, Bose, and many others. Be at the Festival & Expo to discover and to be inspired by these STEM leaders!

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Creating IT Futures Webinar Gives Teachers Beginner Lesson on Raspberry Pi

CompTIA and its philanthropic arm, the Creating IT Futures

[Foundation](#), created a free, on-demand webinar based on [Raspberry Pi technology](#) to help teachers make classroom-based technology more accessible and fun for students.

Through a program sponsored by the [Illinois IT Learning Exchange](#), CompTIA and Creating IT Futures have been teaching Raspberry Pi technology in professional development workshops this year to teachers across Illinois to help them offer basic computer science education and skills to their students. The foundation took a recent workshop and turned it into a webinar so that teachers both inside and outside of Illinois could learn about Raspberry Pi.

Raspberry Pi is a palm-sized, single-board computer developed by a non-profit foundation in the United Kingdom. Costing less than $50 each, millions of Raspberry Pis have been sold worldwide and are making their small-but-powerful presence known in STEM — science, technology, engineering and math — educational circles.

"Raspberry Pi is a great and inexpensive tool to help get kids playing with technology. Teachers can create lesson plans that work with various subjects and projects – from watching seedlings grow to building news stories," said Joan Matz, senior grants manager, Creating IT Futures. "The workshops were the first step in teaching teachers about the technology. Now we've created a webinar based on one application taught in the workshops, and next spring we are running a contest for students to show us applications they've built using Raspberry Pi. We hope that Raspberry Pi will increase student interest in tech and creative problem-solving both in classrooms and after-school clubs."

The half-hour-long webinar incorporates peripheral devices such as a camera with Raspberry Pi to make a video. The webinar aims to provide guidance and commands to get the device configured and create the web platform to store a stop-motion video.

Teachers nationwide can view the webinar [here](#).

The in-person workshops by the Illinois IT Learning Exchange continue throughout the 2015-2016 school year. One hundred and twelve teachers from 54 middle and high schools attended the spring workshops.

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Pepsico, STEMconnector® Partner on Million Women Mentors Movement

[STEMconnector](#)®'s [Million Women Mentors](#) (MWM) supports the engagement of one million Science, Technology, Engineering and Math (STEM) mentors to increase the interest and confidence of girls and women to persevere and succeed in STEM programs and careers. Through the engagement of one million mentors, the goals are to: increase the percentage of high school girls planning to pursue STEM careers; increase the percentage of young women pursuing undergraduate degrees in STEM fields; and increase the percentage of women staying and advancing in STEM careers through supporting workforce mentoring programs. PepsiCo chairs

MWM's global leadership council, and is committed to addressing the challenge of helping to achieve these goals. To date, over 530,000 pledges to mentor have been received from across sectors. Million Women Mentors has a robust national and state network through its 65 national partners and state leaders as well as 50+ corporate sponsors across industries.

In 2015, PepsiCo boosted its MWM participation by mobilizing over 100 mentors in the United States. In addition, PepsiCo launched MWM's first pilot program outside the U.S., in Mexico. Over the course of the 2015-2016 school year, 36 volunteer mentors will pair with a first-year STEM student from Universidad Iberoamericana. In 2016, this program will be replicated by other universities, high schools, and companies. PepsiCo's goal is to sponsor 1,000 mentors in areas beyond the U.S. and Mexico, including France, Poland, and Dubai.

A recent blog article, How to Help 30 Million Girls Build Careers in Science, Technology, Engineering and Math, authored by Pepsico's Chairman and Chief Executive Officer Indra Nooyi and STEMconnector®'s Chief Executive Officer Edie Fraser discusses their shared vision for the movement and ends with this positive message: "We can be the catalyst, and these girls can—and will—build the future."

About STEMconnector®
STEMconnector®, a subsidiary of Diversified Search, is a consortium of companies, associations, societies, policy organizations, government entities, universities and academic institutions, working together, to advance STEM education and careers. With several products and services, STEMconnector® is both a resource and a service, designed to link "all things STEM." STEMconnector®'s network includes organizations at the global, national, state and local levels. STEMconnector® focuses on the STEM workforce and jobs, with a particular emphasis on diversity and women. The work spans the entire pipeline (kindergarten to jobs) and how STEM education experiences translate into careers. Go to http://www.stemconnector.org/. To learn more about how you can get engaged with Million Women Mentors visit http://www.millionwomenmentors.org.

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National Science Foundation Funds Research on Game-based ST Math® Software Program

North Carolina State Researchers hope findings will improve ST Math and other digital learning platforms

The National Science Foundation has granted $799,837 to North Carolina State University to use data mining techniques to study the game-based ST Math software program that's currently used in 2,500 schools across the country. Researchers hope the findings will help improve MIND Research Institute's ST Math and other digital learning platforms that have become a fixture of the 21st century classroom.

The study will analyze millions of data points collected as students and teachers use ST Math, to explore how student behavior, student problem-solving methods and teacher actions influence learning outcomes and student motivation.

"Our larger goal with this study is to create better methods to analyze digital learning programs in ways that benefit students and teachers," said Teomara Rutherford, assistant professor of educational psychology at NC State, and principal investigator of the study. "There are woefully few STEM programs available to schools that meet the federal standards for evidence, meaning that they can prove they actually work. So we need new, better methods to both estimate the impact of programs and to inform teachers and software developers about how to get the most out of them."

Rutherford's three-year study will collect and analyze data from approximately 41,200 third and fourth grade students who use ST Math in five districts across the country. The districts have a large number of students with demographics that are typically underrepresented in the STEM fields: science, technology, engineering and math. Researchers expect the study will help identify best practices for teachers when using ST Math, as well as provide information to help developers modify the ST Math program to improve student learning.

The study will explore how students' actions and behaviors in the self-paced ST Math software program—such as replaying easy puzzles instead of moving on to more difficult ones, or responding to a particularly tricky problem—influence their learning outcomes and motivation.

Researchers also aim to shed light on how teachers' actions and choices influence digital learning in their classrooms. For example, they will look at the learning impact when teachers incorporate ST Math games into their classroom lessons, and the effect of allowing certain struggling students to skip some games in order to "catch up" to the rest of the class.

"MIND Research Institute pursues advances in learning not just for students and teachers, but also for ourselves as an organization, so we're looking forward to what these powerful data mining techniques can tell us about how to improve our ST Math program," said Andrew R. Coulson, Chief Strategist and Vice President for Data and Evaluation at MIND, which is collaborating with the researchers. "Of course, we'd also like to see a more rigorous yet generalizable approach to evaluating digital education tools that are used in schools, so we hope this study opens the door for more like it."

Developed by neuroscientists, MIND's ST Math instructional software program provides visual, computer-based math games designed to support deep understanding of math concepts. Students use ST Math on computers or tablets, with teacher facilitation, in a blended learning environment. In numerous analyses over the years, schools using ST Math have experienced two to three times the growth in math proficiency compared to

similar schools not using the program.

The grant is part of the NSF Promoting Research and Innovation in Methodologies for Evaluation (PRIME) program.

MIND Research Institute
MIND Research Institute is a neuroscience and education social benefit organization, dedicated to ensuring that all students are mathematically equipped to solve the world's most challenging problems. MIND's distinctive visual approach to math and problem-solving is the basis of its innovative, research-proven ST Math® programs for elementary and secondary schools. The visually-based ST Math program has been shown to double or triple schools' growth rates in math proficiency. MIND's programs currently reach 800,000 students and 31,000 teachers in 2,500 schools in 40 states. For more information, visit www.mindresearch.org.

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