Interviews with Badrul Khan

Interview with Paul Thurkettle, NATO Education & Training

You have shown great passion and interest in gaming and simulation for training. How are you able to actualize your passion into NATO training?

It's true; I do share a passion for Immersive Training (our terminology for serious games, virtual worlds, and gamification). When I watched my children spend hundreds of hours playing Guitar Hero, their full attention and excitement to be "in the band," I realized the power and challenge for us to develop online education and training for an older audience, but still have the "fun" in it. If only Guitar Hero had planned teaching children to play real guitars and drums, it would have been fantastic. Immersive Training can allow us to produce scenarios and such realistic situations with the associated stress levels that the soldiers forget they are in a classroom on a computer. When I see new technology like the Oculus Rift, and start imagining what we can do with this in terms of familiarization with environments, equipment training and repair, as well as realism for operational preparation, it really inspires me to keep pushing and getting others to share my excitement!

What does NATO have to do with education? How does education and educational technology figure in the overall scheme of things within the alliance?

NATO is 28 nations working together for the collective good. Each nation sends personnel either to a NATO 'peacetime

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post' or to a crisis post during times of operation. The NATO Command Structure (NCS) is a permanent number of national staff assigned to NATO, as well as civilian experts employed directly by the organization, and the NATO Force Structure (NFS) is comprised of nations dedicating resources to NATO on an 'as needed' basis. In either case, we have to take the national soldiers with their national level of education and training and prepare them for multinational deployment, working together effectively and efficiently. We do this by educating them about NATO, its structure, doctrine, command and control systems, and the environment in which they will find themselves. Once educated, we then train them to work as they will work in a NATO operation. This is done with individual courses on our systems and policies, and then collective exercises. NATO is working to introduce a new Global Approach to Education and Training where we link their national training with NATO training for a lifelong learning continuum. We are also currently working with national training and education centres to accredit their courses for NATO use so other nations can attend, and thus promote international development and cost saving.

What has NATO done to date with e-Learning?

In 2003, as part of the restructuring of NATO, two strategic commands were established. Allied Command Transformation, based in Norfolk, Virginia was tasked to be the transformation driver for NATO. Part of this was the creation of a NATO-wide structured education and training division, and the challenge to create an online e-Learning capability for NATO. From those early days where Advanced Distributed Learning (ADL) and e-Learning were unknown (both in NATO and in general, in the world), we have now reached a situation where e-Learning is seen as an excellent solution to reach our global audience. In many ways, we have grown along with the industry and academic world, where online learning is now a profitable and efficient tool to deliver content. We started first with the creation of a Learning Management System (LMS) and picked the open source product *Ilias*, developed by the University of Cologne. This passed NATO certification and has served us well. We then looked to develop online courses and work with our nations and partners to try and use their courses where possible. In 2011, NATO adopted SCORM as a NATO STANAG (Standardization Agreement), which allowed us to share and develop courses together that can operate on each other's SCORM compliant LMSs. At first we developed based on the student having a slow dial-up Internet connection and an 800 x 600 screen size, but now we push the window, expecting a good, fast connection and some capable machines. Students want to see rich content, narration, and interesting, well-

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Badrul H. Khan*, a Contributing Editor, is an author, educator, and consultant in the field of e-Learning. His 1997 best-selling book,* ***Web-Based Instruction****, was important in paving the way for the field of e-Learning. He founded the Educational Technology Leadership graduate cohort program at the George Washington University and the Educational Technology graduate program at the University of Texas at Brownsville. He recently opened the 2014 NATO e-Learning Forum as the Keynote Speaker, where this interview was conducted (Website:* ***www.BadrulKhan.com****).*

designed courses, which demands good IT structure!

We now have over 120 courses available, covering a wide array of topics and depth of knowledge. These are developed by us as well as NATO education and training facilities and nations.

How do you deal with 28 nations plus partners?

It's a huge challenge for us, and the only way is to build a consistent presence on the Internet by maintaining constant communication with NATO and national commands so that we can spread the word.

It can take a while for a NATO or a Ministry of Defense directive to filter down to the right audience, and with the national turnover of augmentees and staff, getting our URL known and remembered is paramount. We offer NATO networks for course delivery, using the Internet to reach most of our audience, although we offer an LMS on the NATO secure network as well.

What new approaches to e-Learning and technologies are you considering?

At our e-Learning Forum in September of 2014, we had many discussions on immersive training and mobile learning, and on which is the new "hot issue." In my mind, they are separate, but during a coffee break, I spoke to a Swiss delegate who remarked that the platform is immaterial to the delivery type. This is true, and we should be seeking to have our various methods of teaching work on all platforms. Therefore, we are working to enhance our ADL courses to include scenarios and immersive elements to make them more interesting, enjoyable, and educational.

How does NATO e-Learning work with class-based training?

The "sweet spot" area for NATO's e-Learning programme is working with our NATO Education and Training Facilities (of which there are six) to prepare students for their residential training, a blended learning solution. If we can raise the bar to ensure all students arriving for training are at a known certain level, it allows the instructors to use their time for face-to-face discussions, deeper knowledge transfer, and syndicate work. This raises the challenge of how to ensure all students have done the required online course before arrival, which requires the training centres to monitor the students and "encourage" them when required, even to the point of refusing access to the class unless they hold the online certificate.

What have been the biggest challenges in bringing e-Learning to NATO?

When we first stood up and went to NATO education and training facilities and told them, "here we are, we can help you," the reaction was not very impressive. We were seen as a distraction, and worse, a threat to their jobs and security. By offering the blended learning approach, we opened the door and now have an excellent working relationship with positive long-term developments for the future. The ISAF mission in Afghanistan really set us on the map with NATO's requirements to reach national augmentees from all over the world with some basic training. Our e-Learning capability does that, and to date we have had over 65,000 deploying staff take our courses. Of course, getting the word out, and supporting various computer settings, browsers, and customers forgetting their passwords, remains a huge daily challenge, but one we share with all other IT systems out there!

How does NATO ensure its training is effective?

At the 2014 e-Learning Forum we invited you (Badrul Khan) to give a keynote speech *http://www.act.nato.int/founder-of-modern-e-learning-opens-2014-nato-e-learning-forum/)* to provide an academic view and perspective on our operational business. As expected, you made us think and personally for me, fully realize the importance of the student sitting somewhere in the world counting on us to prepare them. It is very easy to be distracted by higher commands' expectations, politics, and student metrics, but we have to keep in sight the primary reason we exist. Evaluation has been a struggle for NATO, and we normally only reach Kirkpatrick's Level 1. However, under the global programming I mentioned earlier, we are trying to establish mechanisms which will enable us to capture the effectiveness right down to the higher command during an operation. The course can be the best in the world with high instructional standards, good content, and good first-level student evaluation but if we are teaching Windows XP, for example, and the student arrives in theatre where they are using Windows 8, it is next to useless!

How do you see the practice of e-Learning in NATO in five years from now? Is e-Learning here to stay? If yes, how and in what form?

As I mentioned, e-Learning is now seen as an effective, efficient education and training tool, which can support residential training or stand-alone courses. In five years, I hope it will be a sustainable capability across NATO with continued growth and acceptance. At present, we have a small production capability and this has to grow to meet our expected demand. NATO is working hard towards the strategic objectives outlined in the recent Wales Summit and the NATO Forces 2020 goals. I am certain e-Learning and all the areas it encompasses, like immersive training, mobile learning, and transmedia considerations, will be at the forefront of delivering these ambitions.

Where were you prior to NATO and how/why did you come to NATO? How does NATO differ from your previous assignments?

My NATO career is now in its 24th year, working in five different areas, starting with Satellite engineering and NATO ground stations, then NATO Command and Control systems, which led to the design of new Web-based information systems. This new technology adoption and subsequent requirements started me on the training track teaching UNIX administration and the NATO Maritime Command and Control Systems. When NATO changed the alliance structure, creating Allied Command Transformation, with a dedicated education and training division, I was accepted into the technology and e-Learning development, which is where I am now. Prior to NATO, I was in the Royal Air Force in the Telecommunications field.

My whole career has been military based, so it's hard to compare with a normal civilian or academic peer, but I have always been challenged to balance the needs to "deliver now" with strategic planning. NATO is a wonderful organization to work in, challenging but also very rewarding. □