NATO SCHOOL’S ADVANCED DISTRIBUTED LEARNING PROGRAM (ADL) - a integrated tool to enhance training and education

Gigi ROMAN, Tanja GEISS
ADL Office, NATO School, Am Rainenbichl 5, Oberammergau, Germany
roman.gheorghe@natoschool.nato.int, geiss.tanja@natoschool.nato.int

Abstract: ADL for pre-learning purposes, as used at NATO School, is a useful tool in support of the resident courses. The online courses allows the course director and the lectures to presume certain knowledge on each course topic and address the audience on more detailed issues of the topic. In addition ADL offers a widespread possibility in individual training and learning, e.g. instructor lead course preparation, e-readings and the building of communities of practise. By using ADL in different ways the Course Directors can focus on the specials needs of his audience and tailor not only the ADL course, but especially the resident course to the needs of the students.

Keywords: NATO School, ADL, e-Learning, online, training, education

I. SHORT HISTORY OF NATO SCHOOL OBERAMMERGAU

The NATO School originated in 1953 when General Mathew B. Ridgeway, then Supreme Allied Commander, Europe (SACEUR), directed the Special Weapons Branch of the U.S. Army School at Oberammergau to teach two courses on strategy and related developments of conventional and nuclear weapons to allied officers and senior civilians. In 1966, the Special Weapons Branch became the NATO Weapons System Department and was placed under the operational control of SACEUR. The curriculum was expanded by adding four more courses. These are still taught today, although they are continually revised and updated to include the most current developments within Allied Command Transformation and NATO. In 1973, the Department became the NATO Weapons Systems School. The School remained under the operational control of SACEUR, but it was assigned to United States European Command (USEUCOM) as a separate joint service activity. The NATO School was chartered and received its present name in 1975.

Since its beginning in 1953, more than 70,000 officers, non-commissioned officers and civilians from all allied and national military commands within the NATO area have attended courses at the school. Several courses are also open to students from Partnership for Peace (PfP), Mediterranean Dialogue and Contact nations bringing the total number of countries that have sent students to 59. Currently, the NATO School teaches 85 different courses to over 10,000 students each year covering topics ranging from weapons employment to peacekeeping to orientation to NATO. The expanded role of the School is reflected in its staff and faculty. Today it employs more than 180 civilian and military personnel from 23 of the 26 NATO countries and two PfP nations.

To ensure students are continually abreast of the most current information on Alliance matters, faculty members consistently receive reports from, and occasionally travel to NATO Facilities/ Centers/ Commands, and to national capitals and commands to gather up-to-date information. Even visits to Operations (i.e. ISAF in Afghanistan) are carried out. More importantly, students and faculty regularly hear the views of numerous political leaders and civilian and military experts who make presentations at the School. Faculty members also make presentations outside the NATO School through the use of
Mobile Education Training Teams. Not only have faculty members lectured within the NATO borders but also outside, for example in Algeria and Russia. The school also hosts various conferences. Through the years, several NATO associated groups have used the school’s facilities and enjoyed the surroundings of the local Bavarian community.

Since June 2003, the school is under operation control of Allied Command Transformation (SACT) in Norfolk, Virginia, U.S. A board of advisors, consisting of members of the SACT staff, provides assistance and guidance to the School. Germany and USJFCOM provide facility and logistic support. However, the school relies on tuition fees of students to offset its operating costs. The school is essentially self-supporting. In 2008 NATO School welcomed about 10,500 officers, non-commissioned officers (NCOs), and civilians from all allied and national military commands within the NATO Alliance, and from 61 nations.

II. NATO/PfP ADL HISTORY

About 11 years ago, Advanced Distributed Consortium Conference in Sofia, Bulgaria, Joe Camacho, government program director for the U. S. Department of Defense’s Joint Knowledge Development and Distribution Capability, was standing in front of a group of about 30 or 40 people with a piece of chalk. He went to the board and scribbled the letters “ADL,” then asked the group “Does anybody know what those three letters mean?” Of course nobody did. That’s how the ADL Working Group in the PfP Consortium began. As different nations started to participate the ADL Working Group began developing recruiting new members, and eventually deploying a learning management system with multiple courses to benefit members of the PfP Consortium. Those early successes led to additional NATO and partner nations wanting to participate and to make use of the courseware. In the 1990s it was realized Education and Training NATO has to move with new education technologies. At the 1999 NATO Summit in Washington, the NATO / PfP Training and Education Enhancement Programme (TEEP) was created. At the following summits it was stressed that the Alliance should focus on further development in education and training for NATO. The initiative was further discussed at the following summits in 2002, Prague, 2004, Istanbul, 2006, Riga and 2008 at Bucharest. Today ADL is widely accepted among NATO and Partner Education and Training Facilities. Since the first ADL Course was produced in 2002, about 100 ADL courses followed, produced by the different NATO/PfP Education and Training facilities.

III. ADL AT NATO SCHOOL

NATO School supported NATO/PfP ADL efforts from the beginning and established in 2005 the NATO School ADL Office, which is now responsible for any ADL and online education efforts. Currently NATO School has over 30 ADL courses online, which are supporting various resident courses. The idea is the offer NATO School students a basic information about the course topic to allow them to inform themselves prior attending a NATO School course. ADL for pre-learning purposes, as used at NATO School, can be a very useful tool in support of the resident courses. This allows the course
director and the lectures to presume certain knowledge on each course topic and address the audience on more detailed issues of the topic. In addition to that ADL must not be seen as a strict pre-learning tool, ADL offers a widespread possibility in individual training and learning, e.g. instructor lead course preparation, e-readings and the building of communities of practise. By using ADL in different ways the Course Director can focus on the specials needs of his audience and tailor not only the ADL course, but especially the resident course to the needs and wishes of the students. Besides the pre-learning ADL courses, NATO School’s ADL Office produced also courses of broader interest, which give students supplementary information on current NATO topics, such as e.g. Terrorism, Trafficking in Human Beings, Rules of Engagement, Procurement and Contracting.

IV. HOW ADL CAN ENRICH THE RESIDENT COURSES

Any instructor or teacher is aware of the challenge to reach the audience. The difficulty for each instructor to get the information through the different media filters, ideally, into the “long term memory”. We all know that best results can be achieved by stimulating as much sense as possible, to get the attention of the student, by managing not to overwhelm him with the impact of the learning material. Reaching the long-term memory is a challenge for each source of information. For ADL that means that the online module needs to be presented in a very attractive way, to avoid regrets or boredom. – In order to achieve that, an ADL module needs to stimulate as much sense as possible, for example the audio-visual by offering not only text bodies, but also video and audio files on a certain topic. The aim is to keep the students attention throughout the whole course on a very high level, to motivate them to read through the whole course. Ideally each single lesson within an ADL module should not only provide the students information, but also interactivity and the chance to repeat the learned topic.

The benefit of having an ADL module as an additional training offer to the resident course becomes apparent by looking on the legality of learning and forgetting, which is related to each other. Once a student gets in contact with the topic it takes quite a time till he learns it. A lot or recurrences are necessary to gain a certain level of knowledge. Once that person stops repeating the topic the process of forgetting starts. Of course a certain amount of the learned material will kept, but it is counter productive to the learning effort. But once that person gets in contact with the same material it takes less time to reach the aimed level of knowledge. For NATO School that means that full ADL courses are the good way to ensure that the students gain the required knowledge within one week. The idea is to use the ADL course not only as the preparation but as the online learning tool. It should not only give a few basic instructions, the ADL courses should give the students all necessary information on a special topic and the resident course will strengthen them.

ADL courses can gap that problem by offering the students the possibility to get familiar with the course content. The resident course could be than the reoccurrence as well as the absorption of the learned material. By doing so the ADL course supports not only the resident course as a pre learning tool, it also help the student to repeat the subject once he left NATO School and feels to need to refresh the learned material.
Last but not least ADL courses are not only beneficial for the students they also help to increase the quality of the resident courses. A well prepared ADL courses which match the resident program can not only bring the students on a basic level of knowledge, ADL can be used as the entrance ticket to a variety of training possibilities. Most important for each single ADL course is to focus on the re-usability and the maintainability to avoid annual changes and updates. Furthermore the ADL content has to match quality standards to ensure that each single NATO School ADL course is a valuable training tool.

V. TRANSFORMING THE NATO EDUCATION AND TRAINING WITH WEB-BASED COLLABORATION

Throughout 2008, students and faculty have been developing a robust virtual community to support their educational and training goals. Keeping pace with innovative business practices that incorporate Web-based social networking, the NATO School has tailored an online capability to enhance the learning experience. "...distributed and collaborative learning methods and technology have transformed the way the NATO School trains students and conducts its day-to-day operations. Through the use of ADL courses and the Web-based NATO School Members Portal, we effectively engage our community members before, during and after their residency " said Col. Mark Baines NATO School Commandant.

At first, the NATO School saw the portal as a solution for distributing course materials, when reproducing thousands of CD-ROMS per year became unsustainable. Yet, it quickly exceeded expectations as it solved the file storage problem and then began to open up new channels for communication and collaboration. In contrast to traditional websites that serve only as data repositories, the NATO School members portal allows for multi-way communication. Members can read information and download files as well as make comments and post documents to share. Additionally, the portal provides the means to communicate directly with others. Seeing a colleague online, it is possible to start chatting via the instant messenger program. With all its functionality and potential applications, the portal acts as "a superb enabler of the blended learning solutions being developed at NATO School," said LCdr Karl Boucher, a Training Development Officer in the Standards, Evaluation and Training Department. Applications include event and course planning, collaborative research, and the development of Advanced Distributed Learning (ADL) projects.

For courses, the portal provides new opportunities for participants to collaborate together. And an increasing number are taking advantage of the capability. As of November 2008, fifty course working groups were online, up from ten in February. Some courses use the collaborative working groups to improve interaction among participants, while others use calendar and notification features to coordinate activities. Other "early adopter" faculty members are experimenting with Web-based interactivity that enriches the residence course experience. "I have transformed the way I conduct syndicate sessions by utilizing collaborative CBRN groups on the NATO School Members’ Portal," said LTC Zdeněk Vrábek, a Course Director in the Weapons of Mass Destruction Department. "The groups exchange information in real time via the portal and I can track and comment on the progress," he said. Additionally, all course materials from lectures to briefings to pictures are posted for students to download when they return to their duty stations.

CDR Ioan Craciun, Director of Joint Operations Department sees applicability of the technology before and after the residence course. He uses NATO School Members portal to provide students
access to materials and to tap into their experiences. Before arrival, they have the chance to build a foundation of knowledge for the course by accessing read-ahead materials and meeting each other online. After graduation, students can return to the online group to interact. "I would like to focus their effort on the course subject and give them the opportunity to share their experience anywhere and anytime," he said. In this manner, alumni will be able to keep abreast of the latest developments in their area of expertise and with new developments at the NATO School.

Beyond specific courses, students and faculty may use the collaborative portal to build communities of practice -- groups that emerge from shared interests and expertise. Connections made in residence may spark further discussions within online groups whose membership cut across disciplines, courses and years.

For faculty, the portal is a helpful planning and coordination tool. A number of Course Directors use the portal to establish and maintain contact with guest speakers and subject matter experts (SMEs) outside the NATO School. As the portal is web-based, SMEs can still access the portal and specified working groups. The collaborative environment provides an effective workspace to assemble course content, design course modules, track and discuss feedback, and establish maintenance schedules for updates to courses.

Looking ahead, the NATO School ADL team, which provides the support and training for the portal, will continue to work with the faculty on how best to take advantage of the portal capabilities. Additionally, upgrades and refinements are anticipated, which may include an integrated Learning Management System. In this way, participants will have direct access to online courses alleviating the need to register separately. Also the ADL team is coordinating with developers and website managers from other institutions in the NATO/PfP Education and Training Network to expand opportunities to share information, coordinate activities, and discover new connections.

Facts:

• NATO School Course participants have access to the most updated version of the course materials after a resident course, through the NATO School Members Portal.
• Collaborative learning supports and extends existing formal learning.

NATO School Members portal exceeded 105 GB of data traffic in 2008, and over 150 GB in 2009.

VI. ADL AND NATO SCHOOL – THE WAY AHEAD

Since the first NATO/PfP ADL Course was produced tremendous changes have been made in the way of producing courses. The current trend is to move away form so called “page turners” to more interactive courses. The new ADL courses should not only inform the students, the trend is to over a well online course, which is interesting and informative at the same time. In this light also the discussion of certification for students of ADL courses is more and more discussed lately. Furthermore students have the desire to stay in contact with their former classmates and instructors after attending the course, as part of the idea of continuous learning. NATO School is working on keeping up to date with the new trends in online education, by offering students interesting and interactive ADL courses, as well as with the NATO School Members’ Portal an online collaboration environment accessible anytime anywhere, for course directors, instructors and students to share course material online, and share their knowledge and expertise with online Communities of Practice. When discussing new trends in ADL one should forget that besides all the great tools, a good content is where all starts. Only if the content for the ADL course is good written the final product will a useful tool for instructors and students. To access online courses from NATO School, log in to the NATO School Members Portal. You will find here the most updated list of online courses available anytime and anywhere you have access to internet.
* Tanja Geiss and Gigi Roman are the Coordinators of the Advanced Distributed Learning Program at NATO School.

References

[10] Links accessed March 8, 2010. For additional information, visit the NATO School website: http://www.natoschool.nato.int