Chapter 17
Distance-Learning for Advanced Military Education: Using Wargame Simulation Course as an Example

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ABSTRACT

Distance learning in advanced military education can assist officers around the world to become more skilled and qualified for future challenges. Through well-chosen technology, the efficiency of distance-learning can be improved significantly. In this paper we present the architecture of Advanced Military Education – Distance Learning (AME-DL) prototype for advanced military distance-learning, it combines advanced e-learning tool, simulation technology, and Web technology to provide a set of military learning and training subjects that can be accessed easily anywhere, anytime through a Web browser. The major goal of AME-DL is to provide a common standard framework for military training program, and the major contribution for such a prototype is to reduce training cost while providing high quality learning experience.
INTRODUCTION

During the past several decades, the proliferation of the technological advancements has led to numerous educational institutions to choose Distance-Learning (DL) as an alternative approach to provide qualified education and to generate revenues. DL is beneficial for both the students and educational institutions because it meets the needs of most students and reduces the cost of educational institutions. Furthermore, such a program is even more applicable for military personnel since the major issue in military training is the territorial dispersion of military personnel which enforces officers to be gathered in training camps to attend the lessons. As a result, DL is the most desirable solution for military officers who have to be available to deploy anytime and anywhere.

The general public, however, often views DL as a byproduct of the technology evolution and equates the success of DL with computer technology such as audio/video streaming and collaboration groupware. They fail to realize that DL is more than a set of computer hardware; instead it is a whole package with multiple factors. In order to fully understand the concept of DL and to design a successful curriculum, we first need to define the term “Distance-Learning.” The American Council on Education characterizes DL as “separation of place and/or time between instructor and learner, among learners, and/or between learners and learning resources” (Mitelstedt, 2001). This definition has nothing that can be constructed to make DL synonymous with technology. Thus, we can see that DL requires much more than just a fast Internet connection and a few sets of compact discs. The central focus of a successful DL program should be on the development and continuous evaluation of a total package that integrates instructor training, facility design, support staff contribution, courseware development, and student expectation. Technology can acted as the central vital vassal that links all the factors together to reduce development cost, and to achieve the goal of providing quality education to military personnel anywhere and anytime.

DL has gained acceptance in the United States military for its capacity in saving training cost as well as reducing the time a military staff spends away from his/her unit, and for its efficiency in increasing training readiness. In November 1997, the Department of Defense (DoD) and the White House Office of Science and Technology Policy launched the Advanced Distributed Learning initiative. This initiative was designed to create an environment for dynamic and cost effective learning software in order to meet the education and training needs of the military in the 21st century. The Department of Defense’s vision is to “ensure that DoD personnel have access to the highest quality education and training that can be tailored to their needs and delivered cost effectively, anytime and anywhere” (Carol, 2000). The strategy is to study and utilize emerging network-based technologies to create common standards that will enable reusability and interoperability of learning content, for example, reusability between applications and platforms in order to lower development costs. Another major goal of Advanced Distributed Learning initiative is to promote widespread collaboration that can satisfy common needs, enhance existing product development cycle, and establish a corresponding implementation process (Mitelstedt, 2001).

This article will first describe the current situation of military advanced education; then introduce the proposed AME-DL prototype, which is based on Microsoft Office SharePoint Server (MOSS) 2007. All the technological terminologies and underline concepts will be summarized in this article for the audience to become familiar with this network infrastructure. It will explain the merits that AME-DL can bring and how training officers, course administrators, and so on can customize military training classes utilizing this infrastructure. It will also provide recommendations to Ministry of National Defense as to the