

Educational Portal of the Americas

The Portal and its e-learning solution



Distance education is not a new concept but distance education using Internet is a new approach. Many private companies, educational institutions, and organizations involved in training and human capacity development have designed and developed their own e-learning web-based training platforms to facilitate the integration of students, professors, and administrators in this virtual world. Like any new approach, e-learning web-based training platforms are developed either with proprietary owner features, which frequently limit their use to their own environments, or they follow standards that facilitate their use globally. Although both methods are important, their use is generally dictated by the goals of the e-learning

environment. If an institution develops an e-learning web-based solution with business/marketing in mind, it should follow standards; otherwise, it may develop its own proprietary solution, which is the case of the Educational Portal of the Americas.

Interoperability is the basic key issue for standardization. E-learning web-based training platforms should operate on different operation systems, devices, and browsers where users are not tied to the specific technology involved. For instance, the platform should be able to run and operate in a Microsoft operation system, as well as Macintosh, UNIX and others.

This whole process of standardization involves complex environments, which include private companies, governmental authorities, educational communities, developers, vendors, and national standard bodies, each with different strategies for learning and training. However, the tendency of these communities has been to establish international e-learning standards. Therefore, different organizations and initiatives around the world create their own “standards” and submit them to international standards bodies to be accepted and adopted by the international community.

The standards should allow for the creation and delivery (learning management systems – LMSs) of courses over multi-platforms; match content from different and multiple sources; interchange contents that can be reused, assembled or disassembled; and ensure that the learning technology operates independently of the system used, which in summary means interoperability, reusability, durability and accessibility.

The two accredited international standards bodies, the International Organization for Standardization (through ISO/IEC JTC1 SC36)¹ and the Institute of Electrical and Electronics Engineers through its Learning Technology Standards Committee (IEEE/LTSC)², are working with national standards bodies around the world to recommend e-learning standards for international use and recognition. On the other hand, national standards bodies are also working with local initiatives, which provide reference models and specifications.

The most recognized national standards organizations and initiatives are the Promoting Multimedia Access to Education and Training in European Society (PROMETEUS)³ for creating test-beds and reference models, the Instructional Management System (IMS)⁴, Global Learning Consortium, the European Committee for Standardization/Information Society Standardization System (CEN/ISSS)⁵,

1. <http://jtc1sc36.org/>

2. <http://ltsc.ieee.org/>

3. <http://prometeus.org>

4. <http://www.imsglobal.org/>

5. http://www.cenorm.be/cenorm/businessdomains/businessdomains/iss/iss/about_iss/iss/about_workshops.asp

Workshop on Learning Technology for meeting requirements and developing specifications, Dublin Core, Aviation Industry CBT Committee (AICC)⁶ for meeting requirements and developing specifications, and the Advanced Distribution Learning Initiative (ADL)⁷ with SCORM, as well as the Education Network of Australia (EdNA)⁸ and the Advanced Learning Infrastructure Consortium (ALIC)⁹ for creating test-beds and reference models.

With this information and its requirements in mind, the Educational Portal of the Americas decided to develop its own proprietary e-learning web-based environment called Arm@nd. The goal of the Portal was not to commercialize its e-learning web-based solution but rather offer professional training at a low cost and reach as many users as possible.



The design and implementation of the Arm@nd solution aimed to: a) provide an effective environment for its target audience, taking into account that many users still experience some limitations in acquiring high speed Internet connectivity and/or advanced computer system features; b) support multiple languages, specifically the four official languages of the Organization of American States -- Spanish, English, Portuguese and French; c) create a learning environment that would allow for the learner to assume an active role in his/her learning process; d) support network and users' load with availability of 99.99% of the time, and providing security to protect contents and users; e) offer compatibility for contents written in different formats; f) provide easy updates and maintenance through a modular and reusable design.

The Educational Portal of the Americas' web-based training environment is now in its fourth year of operation and has trained more than 13,000 participants.

6. <http://www.aicc.org>

7. <http://www.adlnet.org>

8. <http://www.edna.edu.au/>

9. <http://ww.alic.gr.jp/eng/index>