eleed
e-learning
& education

Issue 3
2006

Stud.IP and ILIAS in an EU-Funded Project for the Middle East

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urn:nbn:de:0009-5-6912

Abstract

In autumn 2005 InWEnt (Internationale Weiterbildung und Entwicklung/Capacity Building International gGmbH) on behalf of the EU invited to tender for three web based trainings (WBT). The precondition: either the open-source-platform Stud.IP or ILIAS should be used. The company data-quest decided not to offer the use of either Stud.IP or ILIAS, but both in combination - and won the contract. Several month later, the new learning environment with the combined powers of Stud.IP and ILIAS was ready to serve WBT-participants from all over the world. The following text describes the EU-Project "Efficient Management of Wastewater, its Treatment and Reuse in the Mediterranean Countries" (EMWater), the WBT concept and the experiences with the new Stud.IP-ILIAS-interface.

Keywords: e-learning, open source, web based training, middle east

The EMWater Project

The WBT is part of the EMWater Project, a project financed by the European Union in the Framework of the MEDA Programme [1] and co-financed by the German Federal Ministry for Economic Co-operation and Development [2]. To judge the value of this project, one needs to learn about the background and ambitions of the programme.

Given the fact of water shortage in many Mediterranean countries, on the one hand, and increasing pollution of existing water resources, on the other, the EMWater project works to improve water management in the Mediterranean partner countries through highlighting innovative solutions in wastewater treatment and promoting the reuse of reclaimed water. With this aim in mind, awareness raising activities will sensitise experts from the field, decision-makers, interested citizens and civil organisations to these issues. A more specific goal is the strengthening of regional co-operation both by creating networks among experts and encouraging cross-border knowledge transfer. Additionally, the project aims to strengthen capacity through local, regional and e-learning training programmes as well as through developing draft regional policy guidelines for wastewater treatment and reuse. With a four years duration, from 2003 to 2007, the project's measures are designed to create long-term, positive effects in the region. The primary result of the project will be an increase in efficiency and effectiveness of wastewater management, wastewater treatment and reuse in Turkey, Jordan, Lebanon and Palestine.

InWEnt - Capacity Building International [3] as leader of the consortium, three European partners [4], and five Mediterranean partners [5] are aiming at the improvement of the security and the safety of water supply in the Mediterranean countries Jordan, Lebanon, Palestine and Turkey.

The EMWater Project is one of ten projects financed out of the Euro-Mediterranean Regional Water Programme for Local Water Management, which aims at the enhancement of regional co-operation in the areas of sustainable and integrated management of water resources. The relevant type of interventions are stipulated in the Ministerial Declaration and Action Plan of the 1999 Turin Euro-Mediterranean Ministerial Meeting on Local Water Management. The programme started in 2001 with a budget of Euro 40 million [6]. The Euro-Mediterranean Conference of Ministers of Foreign Affairs, held in Barcelona on 27-28 November 1995, marked the starting point of the Euro-Mediterranean Partnership (Barcelona Process), a wide framework of political, economic and social relations between the Member States of the European Union and 12 Partners of the Southern Mediterranean [7].

The Web Based Trainings

One element within the EMWater project are online courses for capacity building and network creation. These WBTs aim at refreshing the knowledge of wastewater experts in the Mediterranean Countries and also promote cross border knowledge transfer. A WBT means that all teaching and participant´s support was delivered online, plus asynchronous and synchronous work online (forum and chat). No face to face parts like in a blended learning concept were integrated. The major advantage of WBT is that there is no need to travel, the participants can work at day or night time whenever they like (apart from the chats), only a computer and an Internet connection is needed.

The web based training focuses mainly on engineers who are working in the field of water, environmental and wastewater engineering from the Mediterranean countries Jordan, Lebanon, Palestine and Turkey. Especially addressed are planning and operation engineers as well as engineers in municipalities (decision makers in rural and suburban areas). They should have at least basic knowledge about wastewater treatment. 41 people (24 male/17 female) had applied for taking part and were accepted for the web based training. Most of the participants were from the targeted countries Palestine, Lebanon, Turkey, Jordan, but nearly 50% of the applications came from all over the world, including India, Colombia and even Nepal.

Country	No. of Participants
Palestine	4
Lebanon	2
Turkey	10
Jordan	6
India	4
France	1
Egypt	1
Israel	1
Colombia	1
Portugal	1
Croatia	1
Spain	1
Morocco	2
Nepal	1
Syria	3
Germany	2
Total	41

Table 1

Two similiar trainings were held by the staff of Hamburg University of Technology (TUHH) in 2004 and 2005. The conceptional design and the learning content for these two runs were created at the Institute of Wastewater Management and Water Protection at TUHH. For the execution of the courses the e-Learning platform WebCT was used.

For the web based trainings in 2006 and 2007 a new platform and other ways to present the content was desired. The German company data-quest Suchi & Berg GmbH was commissioned to redesign the course, convert and revise the content from simple PDFs to more interactive, reusable learning modules, transfer the course to a combination of the open-source platforms Stud.IP and ILIAS and to moderate and evaluate the trainings.

The learning design provided both self-studying and interaction. The participants should self-study the content either online as learning modules in ILIAS or offline as PDFs and interact with each other and the moderation team via forums and chats in Stud.IP. The moderation team consisted of Dr. Yavuz Özoguz, a known expert in the field of wastewater, for professional questions and moderation, Dr. Bettina Ross for didactical monitoring, Mr. Stefan Suchi for technical support and Mr. Marco Bohnsack for coordination.

Platform, Server and technical Support

The software chosen as platforms for the WBT was the learning-management system Stud.IP [8] ("Studienbegleitender Internetsupport von Präsenzlehre" = "Study accompanying internet-based support of lecturing", see also http://www.studip.de) in combination with the learning-content-management-system ILIAS [9] (http://www.ilias.de). Both platforms are not only open-source-software but also share the same technologies and can be connected via an interface based on webservices. The interface is designed to use a template skin for ILIAS. The effect is that users swap between the platforms without mentioning it, ILIAS looks and feels like Stud.IP. This reduces confusion of the participants and means a surplus in usability of the platforms.

Stud.IP is designed to support groups of learners and communication centered work by providing communication features (chat, forum, messaging, wiki-web) and information resources (news, profile pages, document managment) under an easy-to-use graphical user interface (GUI). Even beginners can use it after a short period of time, which rises the participants motivation to work with the platform.

ILIAS, on the other hand, provides editors and viewers for learning material - features not supported by Stud.IP, but essential for an interesting presentation of learning content.

The approach was to create an integrated environment for interaction and communication purposes on one side and self-studying and execution of tests on the other side. Within the learning environment, a combination of communicative didactic and content-focused didactic should be established. The part for self-studying of the content located in ILIAS is as important as the communication and discussion in the forums and chats of Stud.IP.

Results

Most surprisingly, almost no participant experienced technical trouble or needed help using the platforms. The support-forum remained empty and even participants who never before used e-learning software did not complain. Instead, the skilled ones began to explore the features of both platform and claimed they would appreciate if the learning environment was used in their facilities. Within three weeks a social community was established, consisting of approx. 50% of the participants [10]. This community shared documents related to wastewater-treatment, heavily discussed in the forums and also met in informal chat-sessions to talk about personal things. This development both surprised and delighted the moderator group. Considering the difficult political background in the Mediterranean Countries, the ongoing conflicts and at least Lebanon, Palestine and Israel on the verge of a war, the polite behavior and fruitful discussions within the course could not be expected.

The discussions were fruitful and enlighting: within 8 weeks, every single one of the 20 active participants wrote 12 postings plus an essay, studied 10 learning modules in ILIAS and completed 4 tests.

After the WBT was finished the participants were asked to fill in a questionnaire about how they like the course moderation, the content and the platforms Stud.IP and ILIAS.

The results of the questionnaire indicate that the platforms used for the WBT perfectly met the technical equipment and possibilities of the participants. The didactic concept also worked very good.The task of cross border knowledge transfer was completed. A special bonus was the establishment of a community between the participants. Almost all active participants regretted that the course was over and asked to keep the forums open for further use. Since the learning-environment was hosted not on data-quest-servers, an alternative forum was offered at the EMWater-project website. The whole group of the active participants migrated to http://forum.emwater.org to stay in touch with each other and continue to discuss over water reuse.

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[1] http://europa.eu.int/comm/external_relations/euromed/index.html

[2] http://www.bmz.de

[3] http://www.inwent.org

[4] Adelphi Research, Germany, http://www.adelphi-research.de ; Hamburg University of Technology (TUHH), Germany, http://www.tuhh.de/aww ; the Italian National Agency for New Technologies Energy and the Environment, ENEA http://www.enea.it

[5] Al al-Bayt University, Jordan, http://www.aabu.edu.jo ; Lebanese American University http://www.lau.edu.lb and University of Balamand www.balamand.edu.lb , Lebanon; Birzeit University http://www.birzeit.edu , Palestine and YILDIZ Technical University, Turkey http://www.yildiz.edu.tr

[6] More Information on this can be found under http://europa.eu.int/comm/external_relations/euromed/conf/sect/water.htm (Marseilles Ministerial Conference on Local Water Management) and http://europa.eu.int/comm/external_relations/euromed/conf/sect/water2.htm (Turin Ministerial Conference on Local Water Management).

[7] Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Palestinian Authority, Syria, Tunisia, Turkey

[8] http://www.studip.de , http://www.data-quest.de , http://www.campussource.de

[9] http://www.ilias.de , http://www.campussource.de

[10] Unfortunately, 50% of the participants remained inactive even after being directly addressed in several e-mails. The reason may be general disinterest in the course, forced applications or just curiosity about e-learning, but not about the content.