

# EUMEDCONNECT2 Case Study

## ICT-LEAP: Leaping barriers to education through e-learning



Linking universities from the Polar Area to the Middle East

The rapid development of information and communication technologies (ICT) and the move towards more knowledge-intensive, interdependent societies, create new challenges and opportunities for the design and delivery of education. ICT-enabled distance learning, commonly referred to as e-learning, is fast becoming an accepted and indispensable part of educational systems in both developed and developing countries. Such accelerated take-up has been stimulated by the interest among educators and students in the use of these new Internet-based and multimedia technologies, as well as by the recognition that traditional ways of organising education need to be complemented by innovative and flexible methods if the fundamental human right to learning is to be realised across the wider population.

Linking universities in Europe with academic institutions in Jordan and Palestine, the ICT-LEAP project aims to improve and foster higher education in the Middle East by means of distance learning. Thanks to EUMEDCONNECT2, the high-speed research and education data communications network for the Mediterranean, and its interconnection to its European counterpart, GÉANT2, teaching staff and students at these institutes are able to engage in exciting e-learning activities.

### Making learning more flexible and accessible

In Jordan, universities are primarily located in metropolitan areas; in rural parts, however, mobility is limited and thus access to higher education is frequently restricted. A similar situation presents itself in the Palestinian Territories, where students are often unable to reach campuses due to unpredictable travel restrictions. Against the backdrop of limited mobility and a rapidly expanding student population, e-learning is the answer to the need to move beyond traditional campus-based education.

Funded by the European Commission through its Tempus programme, the ICT-LEAP project sets out to facilitate this process of educational innovation. By building on virtual meetings and lectures supported by advanced connectivity, it aims to establish an e-learning educational network between EU and Mediterranean partner countries, allowing their universities to share experiences and best practice regarding distance education and to make learning across the Mediterranean more flexible and ultimately more accessible.

### Train the trainers

The overall objective of the project is to assist partner universities in the eastern Mediterranean in establishing their own e-learning centre. In this capacity-building process, academic staff at the institutes in Jordan and Palestine can draw on the expertise and insights of their European colleagues. A knowledge outpost in the northern forest plains of Sweden, Umeå University has a long tradition in providing distance and decentralised education. Professor Adi Anani, Project Coordinator of ICT-LEAP, can build not only on the vast expertise of his institute in the field of e-learning but, originally from the Middle East, he also brings invaluable knowledge of the educational context in the region. Methodological and pedagogical approaches to online learning have also been developed at the University of Dortmund in Germany, which is thus equally well suited to make a valid contribution to this competence building process.

In line with the very essence of the project and its objectives, in addition to physically attending workshops and face-to-face meetings to cover technical and pedagogical issues, development of capacity-building in e-learning is supported through interactive online training for university staff and the sharing of expertise through video-conferencing links between the universities in Jordan and Palestine and their partners in Europe. Providing a reliable, high-speed network connection, EUMEDCONNECT2 and GÉANT2 help educators save time and money, by minimising travel for training and capacity building purposes.

### EUMEDCONNECT2 – the research and education network for the Mediterranean

- providing high-capacity Internet connectivity for academic and scientific collaborations
- directly connecting southern and eastern Mediterranean partner countries: Algeria, Egypt, Jordan, Morocco, Palestine, Syria and Tunisia
- connecting other Mediterranean and European partners via GÉANT2
- taking forward Mediterranean region e-infrastructures pioneered by EUMEDCONNECT since 2004
- jointly funded by the European Commission and the Mediterranean partners to reduce the digital disparity between the Mediterranean and European regions



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#### The Consortium

ICT-LEAP - Information and Communications Technology LEARNING Pentagram - links five universities (hence the name 'learning pentagram'):

- Umeå University (Sweden)
- University of Dortmund (Germany)
- Palestine Polytechnic University, Hebron (Palestine)
- Al-Quds University, Jerusalem (Palestine)
- Jordan University of Science and Technology, Irbid (Jordan)

#### Taking the 'distance' out of distance learning

It is not only academic staff who stand to benefit from a cost-effective and time-saving virtual learning environment supported by high-capacity network links. As the next logical step in this educational innovation process, EUMEDCONNECT2 and GÉANT2 will also provide communication support to the students themselves. Being a virtual student used to mean skipping lectures after you had signed up. Now, it is about attending lectures halfway across the world via the Internet, replaying lecturers' best bits over a podcast and using online discussion groups to mull over questions.

Typically, in a synchronous remote learning environment, audio and live video links connect the geographically distributed learning sites, supporting cross-site discussion and real-time interaction. In the context of the ICT-LEAP project, this method allows undergraduates at the Palestine Polytechnic University in Hebron, at Al-Quds University in Jerusalem and at Jordan University of Science and Technology in Irbid to participate remotely and interactively in lectures physically held at their partner institutions in Umeå and Dortmund.

A pilot e-degree course is expected to be offered in spring 2009: engineering students at the Middle Eastern universities will be able to enrol 'virtually' and attend lectures remotely at Umeå University via live video links. Equally, lecturers from Middle Eastern universities will be given the opportunity to address students enrolled in the same course at Umeå University.

By taking the 'distance' out of distance learning, EUMEDCONNECT2 and GÉANT2 assist large contingents of students in Jordan and Palestine in getting access to European and international curriculum content, providing a cost-effective alternative to having them physically enrolled at academic institutions abroad. Thus, the networks contribute towards fighting brain drain in the Mediterranean and foster intercultural dialogue and collaborative learning across geographical boundaries - across 4000 km: from the North Pole all the way down to the Middle East.

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The availability of high-speed networks such as EUMEDCONNECT2 is essential for successful interactive communication among participants during lectures through multipart video-conferencing. The lack of a reliable connection would be immensely disruptive, which in turn might defeat the very objective of such an innovative educational process.

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Professor Adi Anani, Umeå University, Sweden, Coordinator of the ICT-LEAP project



#### The future

New pedagogical approaches and modern information and communication technologies deliver a new concept of higher education that makes learning more flexible and ultimately more accessible. ICT-LEAP is part of this educational revolution and, once e-education centres are established in Jordan and Palestine, is expected to expand to other countries in the region. With advanced connectivity, reliable bandwidth and extensive coverage, EUMEDCONNECT2 is poised to support this process of overcoming barriers to education in the Mediterranean and thus foster social cohesion and regional development.

#### The Tempus programme

Tempus (Trans-European mobility scheme for university studies) promotes cooperation in higher education (HE) between the European Union and a number of beneficiary regions, including the Mediterranean. The programme funds joint projects between institutions in the EU and in partner countries that aim to modernise higher education by developing and disseminating new curricula and teaching methods or by streamlining management and governance of HE institutions.

Tempus is managed by the European Commission's Education and Culture, Enlargement and Aid departments.

With advanced connectivity and extensive coverage, EUMEDCONNECT2 and GÉANT2 support the collaborative nature of the Tempus projects and are fundamental to the overall objective of innovative education delivery.

#### Find out more

To learn more about the ICT-LEAP project, visit: [www.ict-leap.eu](http://www.ict-leap.eu)

For further information about the Tempus programme and opportunities, please consult: [http://ec.europa.eu/education/index\\_en.htm](http://ec.europa.eu/education/index_en.htm)

Find out more about EUMEDCONNECT2 from: [www.eumedconnect2.net](http://www.eumedconnect2.net)

Find out more about GÉANT2 from: [www.geant2.net](http://www.geant2.net)

DANTE is a non-profit organisation that operates the GÉANT2 and EUMEDCONNECT2 networks. Further information about DANTE and its activities can be found at: [www.dante.net](http://www.dante.net)