

# Session A4: eInfrastructures for Distance and eLearning

Friday 15th December 2006 – 11:55-13:30

## Session Overview

What impact will eInfrastructures have on distance and eLearning? Case studies from European and Indian leaders will explore the future of Distance and eLearning by harnessing the power of eInfrastructures.

M. M. Pant from Planet Edu Pvt (India), Prof. Krithi Ramamritham, from the Bombay IIT, and Prof. Pierluigi Ritrovato, CRMPA-Centre of Excellence for Learning and Knowledge will set out to answer this question for the first time in type of setting.

Prof. M. M. Pant's presentation will look at the possibility of linking Indian eLearning initiatives to the European eLearning Infrastructure to deliver high quality learning and prepare youth for the emerging global economy across an Indo-European System.

Prof. Krithi Ramamritham will complete the eLearning picture in India and the potential of using eInfrastructure. Prof. Pierluigi Ritrovato, will present the European perspective to the session and help demonstrate to the BELIEF audience how can Europe and India collaborate given their mutual strengths, skills and knowledge in eInfrastructures

## Chairs:

*Stephen Benians, BELIEF Project Co-ordinator, Italy*  
*Dolly Bhasin, SPH Consultants, India*

## Speakers:

*Pierluigi Ritrovato, CRMPA - Centre of Excellence for Learning and Knowledge, Italy*

### **European Learning Grid Infrastructure project: IWT and Salerno's Pole of Excellence enabling Grid for Learning**

In this talk the experience done by the Italian Pole of Excellence on Learning and Knowledge in the frame of the European Learning Grid Infrastructure (EU funded) project will be presented. The ELeGI project concern with use of Grid technologies for supporting the implementation and adoption of pedagogy driven, user centred learning model, enabling experiential based and contextualised learning approaches.

Information on the ELeGI software architecture for formal learning, defined as a Domain Specific Grid based Service Oriented Architecture, will be provided highlighting the innovative design process followed in order to guarantee the compliant with the pedagogical model. Finally details on the functionalities provided by the Intelligent Web Teacher (IWT - a very innovative learning platform) and the GRASP Grid middleware around whom the ELeGI software architecture has been built on will be provided, including the experience on migrating IWT on Grid and how this experience have impacted on the future versions of the IWT platform.

*Krithi Ramamritham, IIT Bombay, India*

### **Educating rural folk ground-up: the aAQUA experience**

aAQUA is an online multilingual, multimedia Agricultural portal for disseminating information from and to the grassroots of the Indian agricultural community. aAQUA simultaneously addresses two major challenges in farmer outreach programs - geographic reach and customized delivery.

It answers farmers queries based on the location, season, crop and other information provided by farmers. aAQUA makes use of novel database systems and information retrieval techniques like intelligent caching, offline access with intermittent synchronization, semantic-based search, etc. Agricultural content repositories (Digital Library), Agri-price information (Bhav Puchiye), farmer schemes and various operations - support databases (aAQUA-QoS) have also emerged from the experience of aAQUA deployments. aAQUA's large scale deployment provides avenues for researchers to contribute in the areas of knowledge management, cross-lingual information retrieval, and providing accessible content for rural populations. Apart from Agriculture, aAQUA can be configured and customized for Expert advice over mobile networks and the Internet in Education, Healthcare and other domains of interest to a developing population. This paper will showcase the utility of various component databases built into aAQUA to enhance the QoS delivered to rural populations.

*N. Satyanarayana, C-DAC, India*

*M.M. Pant, Planet Edu Pvt Ltd., India*

### **Indian eLearning Initiatives: perspectives of Eu-India synergies**

In recent times, India has been witness to the creation of a variety of wired and wireless networks that connect Computers, televisions and educational resources. Notable amongst them are the ERNET, the EDUSAT, the INFLIBNET on one side and the GSM and CDMA cellular phone networks on the other. With the possibility of 3G on the horizon, there is a huge opportunity for this convergence to rapidly accelerate the growth of Distance and eLearning.

It is possible to link these Indian eLearning initiatives to the European eLearning Infrastructure to deliver high quality learning and prepare youth for the emerging global economy across an Indo-European System. The educational systems of India and Europe are rather well aligned both at the School level and at the Higher Education Stage. The fact that the Bologna process for mutual recognition is moving towards acceptance of the 3-year degree program is a great facilitator for a seamless integration of the two systems.

We need to complement the technical infrastructure with the educational infrastructure in the form of Standards, learning metrics, tools and systems for learner engagement and effective learning delivery. These elements of the infrastructure are identified and illustrated and the opportunities that India could have in providing remotely delivered educational services over this augmented network. Possible implementation models at all stages from elementary school to life-span education would be presented. Teaching of English, ICT, Mathematics, Science and universal human values could be some of the initial projects.

*Personal tools Ms. Bhasin*