The e-Learner in the Making: Rethinking Flexible Education in the Romanian University

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Abstract—The role of Romanian universities has become crucial in (re)negotiating a new relationship with life-long learners and in bridging the gap of social, age and educational disadvantage. Particularly in emerging countries such as Romania, universities are called to respond to ever new challenges by not just bringing new forms of technology-enabled education to learners of all ages but by also making sure that these reach out and contribute to social cohesion and bonding. This is all the more difficult to achieve as it comes along with a new paradigm in education, characterized by flowing (interchangeable) roles, shared resources, virtual facilities, and asynchronous teaching/learning processes. Our paper presents e-Learning solutions at our university intended to increase quality of educational services through the design of modern forms of education, through students’ participation in course elaboration, updating and design. We argue that participatory e-Learning represents a good model of a modern learning environment apt to enhance cultural understanding for incoming Erasmus students at Lucian Blaga University of Sibiu.

Index Terms—e-Learning platform, Erasmus programme, Participatory e-Learning.

I. DEVELOPMENT OF E-LEARNING TECHNOLOGIES IN ROMANIA

Development of e-Learning technologies in Romania. After 1990, Romanian universities have assumed a new crucial role in (re)negotiating a new relationship with online and lifelong learners and in bridging the gap of social, age and educational disadvantage between intra-national and international communities of students. Post 1990, the year which marks the fracture of communism, Romania has benefited considerably from increasing know-how transfer and higher funding resources regarding both new learning technologies and up-to-date ICT infrastructure. These benefits have increased substantially not only because of funds received from various national Romanian Government programs but also, exponentially, from the simultaneous expansion of many e-Learning modern programs (Istrate 2007). Consequently, all higher education institutions have established Distance Education Departments, and only a few several Technology Enhanced Education units, which are operational and make use of emerging new teaching methodologies within or as substitutes for the traditional education activities. Distance education was the first to be introduced through state initiatives and to take account of all previously missing lifelong learning issues. The implementation of all educational segments went slowly and with difficulty and spread over a decade as it had to consider all stages in the cycle carefully, starting with early education, education in family, education through mass media, education for democratic citizenship, training in enterprises, initiation into ICT as well as developing modern learning technologies. Noticeably, Romania has been catching up very fast in the last decade on ICT learning, as universities have been called to respond to ever new challenges, bringing not only new forms of technology-enabled education to learners of all ages, but also making sure these devices reach out and contribute to social cohesion and bonding. These efforts have complemented a whole shift of paradigm in education, determined by flowing roles, shared resources, virtual facilities, and combined asynchronous teaching/learning processes. As a result, the emerging generations have better IT skills and competence, which make them more prepared to respond to the new national and international labour market demands and specializations. In Europe, Maths, science and technology graduates made up more than one fifth (22.4%) of all graduates in the EU-27 in 2006, with Austria recording a share closer to one third (32.3%). In Romania, the annual growth rate of graduates in mathematics, sciences and technologies was 5.5%, that is, 1.1 percentage points above the European average rate (Preliminary Report of the European Commission in 2008, regarding education and training progress). In 2003/2004, this annual growth rate represented 24.4% of the total number of Romanian graduates, which ranked Romania higher than other recently adhered EU member states such as Hungary, Poland, Latvia, Estonia, Slovenia, and even well above the EU average rate, 24.1% [7].

II. ERASMUS STUDENTS

Erasmus is a sub-program of EU’s Lifelong Learning Program, under whose auspices several types of actions are performed: student and staff mobility, Intensive Programs, Erasmus Intensive Language Courses and Erasmus centralized actions. Romania’s indicators during the 2008-2009 year show a significant increase in programs participation, mostly in outgoing student mobility, in incoming Erasmus students’ participation in programs and an average success rate as coordinator. In more specific terms, although in Romania (Bulgaria and Poland included) the ratio was three outgoing students for every incoming, the share of incoming Erasmus students participating in Erasmus Intensive Language Courses (EILCs) for the same 2008/09 year was in Romania (Slovenia, Latvia and Iceland as well) higher than 10%
and it was among the 10 countries out of the 31 participating (Belgium, Spain, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal) which had an above average success rate as a coordinator. Additionally, Romania (along with Estonia, Norway and Latvia) has experienced over 40% increase in numbers in the last five years, was the organizer of one IP (Intensive program) and has enough room for incoming Erasmus mobility placements considered against the size of its respective student population. At Lucian Blaga University of Sibiu, the Erasmus Mundus External Cooperation Window (EM ECW) is in full operation as one of the best and most successful cooperation and mobility scheme in the area of higher education cooperation. Its objective is to achieve better understanding and mutual enrichment between the European Union and third countries cooperation through promoting the exchange of students and staff, knowledge and skills at higher education level. Erasmus Mundus Mobility for Regional Asia is part of the Erasmus Mundus External Cooperation Window and Lucian Blaga University of Sibiu is the only higher education institution that represents Romania in the two international mobility programs Erasmus Mundus Mobility with Asia-East and Erasmus Mundus Mobility with Asia-West which provide funding opportunities for incoming students, researchers and academic staff. This mobility scheme envisaged under the respective ‘window’ translates a political choice of our country and region and is complementary to other actions developed in the area.

III. E-LEARNING SOLUTIONS AND DESIGN AT LBUS

The increasing speed at which existing knowledge becomes obsolete, and the rapid changes in the means by which it is delivered and renewed, requires high adaptability of our university to meet the needs of the new learners. Against this background, along with a fast growing availability for new modern e-Learning technologies, an ever larger number of Erasmus exchange students and an increasing number of Romanian students accessing our university’s e-Learning platform on the other, we argue that a reconsideration of intercultural interactions and learning dynamic processes has rendered participatory e-Learning more adequate and better equipped as a learning technology for the newly formed communities of Asian-Romanian learners (who are close in digital knowledge and Internet accessibility).

e-Learning technologies are apt to bring Erasmus Asian and Romanian students alike to a common learning environment where classes are not only monitored by facilitators, but also constantly shaped anew so as to create lasting links and generate mutual enrichment and cultural understanding. With adequate equipment and professional monitoring, we maintain that this new engaging model of learning can be constantly adjusted for differently focused curricula and architecture of web course design.

The LBUS e-Learning Platform. The shift from former education institutions and processes, toward diverse learning opportunities that are more process and outcome oriented, has been at our university gradual, constant and accelerating. In the following, the technical data on the most recent e-Learning system implemented at our university show why and how this new engaging modern learning technology can better serve all learners, particularly the incoming Erasmus community of learners.

Through the European Structural Funds, the POS CCE Sectorial Operational Program funded and assisted Lucian Blaga University of Sibiu in the implementation of a complex E-Learning platform with a view to increasing regional development through a more open and flexible education system. The immediate aims were the improvement and diversification of educational services as well as increasing access for traditional and non-traditional students, irrespective of prior training, money availability and regional distribution; achieving a better and clos(er) learning output monitoring, overcoming traditional education barriers of face-to-face teaching and learning by introducing participatory e-Learning; and last but not least, enhancing and diversifying participatory e-Learning activities, etc. This e-Learning Platform is based on Workplace Collaborative Learning, an IBM-standard tool for online personalized E-education resources.

**FIGURE 1. FUNCTIONAL DIAGRAM OF IBM WORKPLACE COLLABORATIVE LEARNING**

The IBM Workplace Collaborative Learning [5] is a scalable, highly configurable platform for creating and managing classroom-based and e-Learning activities, curriculums, and courseware. Whether the training is to be delivered online or in person, this e-Learning platform helps organize and track the materials, students, and resources required. Integration with Workplace Collaborative Learning delivers blended learning experiences and provides students with enhanced tools such as course discussion areas, document sharing, Web conferencing and chat rooms. The platform addresses various customer requests to further enhance the user interface (UI), usability, stability, and reliability of the application. The system provided by IBM includes the following components:

- Learning Server – coordinates all system services and ensures administration interface;
- FTP Server – collects course packages to be imported by the Learning Server;
- Delivery Server – operates as messenger for the Content Server, launching course content to learner’s browser and sending it back to the Learning Server;
- Data Base Server – stores info on users, courses and settings for both Learning Server and Delivery Server;
• Content Server – operates as a library;
• Collaborating Server – provides work space and communication facilities;
• Content Developing Instrument – allows content to be developed and get uploaded on the e-Learning platform.

The main portlet from the Learning page the student interacts with is the My Learning portlet, which allows him to perform all tasks. Likewise, the portlet utilizes a visualizations switch to allow the student to switch between available screens. These are: Enrolled Learning, My Schedule, Course catalog, My Progress, Notification, My Learning Plan, Recommended Learning, My Folders, Invitations.

IV. PARTICIPATORY E-LEARNING

At the dawn of the 21st century, a real evolution in containers and contents has contributed massively to the economic and social development of countries around the world. Universities have benefited from these new ways of transmission of knowledge and teaching has been transformed from a package of information to be delivered to a permanent open learning environment, in other words, to the digital campus. LBUS, a provider of institutional services geared towards a better collaboration and communication between students, has implemented a e-Learning system that can additionally complement and enhance teachers and administrators via the Internet. Our university IT specialists, starting from the idea that the above platform could only serve the intra-national community of learners have begun to work out a platform where users are no longer considered mere consumers of information but also potential producers of web content. For specific community of learners, this change in vision, a mere click away for emerging beneficiaries at our university, allows them to participate in the production, communication, sharing and diffusion of content. Romanian is no longer the language of teaching and learning, if used in the combination of article readings, verbal and written reactions to ideas, observing demonstration tools or videos, discussions of culture-specific ideas, tidbit rankings, simulations of business environments, synchronous sessions, etc.

This particular e-Learning model and platform supported the Romanian and Erasmus Asian Student Program in many ways. Firstly, knowing that incoming foreign students usually have problems in adjusting to an (ny) European, in all ways different, education system, the platform allows for more freedom in controlling where and when they learn. Thus, traditional class participation is reflected only in the combination of article readings, verbal and written reactions to ideas, observing demonstration tools or videos, discussions of culture-specific ideas, the rest is done in a totally new digital environment. Secondly, another particular advantage of participatory e-Learning, if used in combination with traditional e-Learning platforms, is that it leads to a better work and space organization created in wireless environments wherever laptops can be more comfortably placed. Thirdly, the model eschews traditional schemes for accreditation of prior learning for incoming ECTS

Traditional e-Learning technologies and distance education opportunities continue to increase throughout the country due to Romanians’ growing digital knowledge and increasing universal Internet access for an ever larger category of population. Despite such arguments that emerging online technologies have widened the digital divide instead of reducing it, since access to the Internet is required [3], we hold that our university e-Learning platform in combination with active and participatory consumption-based learning technologies – such as online photo albums, blogs, wikis, podcasts, e-books, YouTube videos, virtual worlds, wireless and mobile computing – is apt to bring newer avenues for our university’s students. Asian and Romanian learners alike are granted thus more choice and self-determination in their own learning. Regular class participation can be more successfully replaced with weekly participation in online courses and webinars, tidbits and shared online video (You Tube and Teacher Tube), all of which are better adjusted to enhance the interactive and collaborative learning. Traditional methods are obsolete and are no longer able to deal with the inter-cultural component embedded in the learning activity for which such modern e-Learning activities provide immediate solutions and affordance in these modern times. Undoubtedly, developing inter-cultural relationships and improving inter-cultural trust via such learning technologies with the Asian exchange students can be but a win-win solution with immediate effects on business relations enhancement between Romania and Turkey, Bangladesh, Cambodia, Philippines, India, Laos, Nepal, Pakistan and Vietnam. If used in combination, the e-Learning system is more adequate to accomplish this due to the openness, common sharing and curiosity fueling all users; teachers can be thus more thoughtful and can act as effective online instructors as well as business negotiators who do no longer teach but moderate, coach and assist students in the learning process of knowing each other’s culture. Connectivity, social knowledge and participatory learning can be enhanced in consultation and browsing sessions of Wikis, Wikipedia and Wiki-books combined with Networks of Personalized Learning (e.g. language learning, tutoring). Traditional class participation is reflected only in the combination of article readings, verbal and written reactions to ideas, observing demonstration tools or videos, discussions of culture-specific ideas, tidbit rankings, simulations of business, synchronous sessions, etc.

The new tools of Web 2.0 (blogs, Wikis or social networks) allow an evolution in content presentation as they are used for social purposes or platforms that can enhance and complete learning experiences. The leap was determined by the following parameters:

<table>
<thead>
<tr>
<th>e-Learning 1.0</th>
<th>e-Learning 2.0</th>
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<tbody>
<tr>
<td>Platform LMS and LCMS</td>
<td>Tools Web 2.0</td>
</tr>
<tr>
<td>Based on teacher</td>
<td>Based on learner</td>
</tr>
<tr>
<td>The teacher produces</td>
<td>The teacher validates</td>
</tr>
<tr>
<td>Learner is a spectator</td>
<td>Learner is a producer</td>
</tr>
<tr>
<td>Exchange with the class</td>
<td>Exchange with the community</td>
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The International Conference on e-Learning in the Workplace 2011, www.icelw.org
credit students, which are often bureaucratic and time-consuming activities. Due to this model, and unlike for other students, there are fewer prior learning requirements for the Asian groups, as the only basic requirement is that they have a certain digital knowledge and computer literacy. Moreover, in order to help students make the most from their study abroad, the European Credit Transfer System (developed by the European Commission) provides a way of measuring and comparing learning achievements, and helps students transfer from one institution to another. This is considerably eased within this model, as access to regular courses alongside Romanian/local students is enabled though the learning agreements done prior to the commencement of studies abroad. This means that the Erasmus Asian student knows what courses he will take in Romania and the number of credits allocated to them but in the completion of these courses he will be allowed more self-determination in his own learning. Lastly, but most importantly, the model shows unit cost reductions within education, as the introduction of technology slowly changes the whole cost structure of course preparation, presentation, and support. If before and after costs are compared, against all expectations, technology is not an exaggerated added cost, it simplifies things because old systems can exist in parallel, therefore technology only enriches (does not actually replace old systems), and affords variation of methods and better accessibility for different categories of learners.

VI. CONCLUSIONS

Active engagement strengthens learning whereas traditional forms of learning have proven much less able to engage learning. Romanian and Erasmus Asian Student groups have in common an important resource-digital knowledge-which makes participatory e-Learning a better opportunity for learning in new and exciting ways in which students can make better use of that resource. Both Romanian and Asian learners can have thus full freedom at Lucian Blaga University of Sibiu to build mutual trust as well as access, sequence and repeat their learning materials outside traditional class constraints.

REFERENCES


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