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INTERNATIONAL COOPERATION HELPS DEVELOPING HIGHER EDUCATION THROUGH DISTANCE EDUCATION IN MOZAMBIQUE

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Summary

In 2007, the University of Aveiro, Portugal, and the University Eduardo Mondlane, Mozambique, settled a joint 4 year program aiming at the development of distance education in Higher Education in Mozambique. This program has been financially supported by the Calouste Gulbenkian Foundation.

In 2008 several activities were undertaken: development and update of the skills of the Distance Education Centre's (CEND) staff of the University Eduardo Mondlane; support to the decision-making process leading to the identification and development of a pilot-project, a 3 year degree in Business Management, fully delivered at a distance; support to the improvement of the technological infrastructure of CEND.

A doctoral program in Multimedia in Education, specially conceived for a group of CEND's staff, will start soon, that will promote study and research taking advantage from the direct experience participants have in designing, deploying and managing distance education. Furthermore, pedagogical, technical and strategic management support to the CEND's distance education activities will be continued.

Both universities recognize that sharing their achievements and difficulties, on the basis of mutual institutional and personal respect, and promoting joint research based on the results achieved, is the most sound basis to improve their knowledge and prospectives about distance education in HE.

1. Introduction

Distance education in Higher Education (HE) has been, for several decades, an area of activity reserved to highly specialized institutions. Universities such as the OU-Open University (UK), the Open University of Holland, the UNED-Universidad Nacional de Ensino a Distancia (Spain), or, the more recently created, UOC-Universitat Oberta de Catalunya (Spain), are examples of well established universities created and fully devoted to distance education.

The specialization of these universities was a result from its focus on distance learners, which determined the adoption of pedagogical, technological and operational models in several aspects orthogonal to those used with face-to-face learners in traditional universities.

However, the dissemination of the use of Internet based technologies, both on institutional and personal levels (teaching staff and learners), slowly created the conditions for traditional face-to-face universities to get increased interest on exploiting the potential of technologies to diversify their target audiences, taking advantages of the power of technologies to help deploy flexible learning environments.

In many of these traditional universities, since the last decade of the XX century, the initiatives to get familiarity with e-learning technologies, namely LMS-Learning Management Systems, soared. In most cases the initial focus was on the use of these technologies to improve the working conditions of teachers and learners, on a complimentary basis to face-to-face work. But soon this initial focus was enlarged to many other innovative directions, including distance education.

This evolution has been constantly pushed by the fast development on ICT, namely as far as Internet based communication services are concerned. Currently Web. 2.0 social networking tools are used by a rapidly increasing number of people, either on private and professional basis, so universities are pressed, and also eager, to exploit these technological novelties to increase the level of flexibility of their programs.

Eventually, in many universities this lead to the interest to include distance education as one of the learning modalities offered, on a complementary basis with traditional face-to-face and mixed mode approaches.

Demographics is playing an important role is these developments. In some countries, namely in Africa, population increase is leading to increased difficulty to provide adequate education offer. In some other countries, namely in Europe, the decrease in young population is leading to an increase in competition among universities. Both tendencies, although opposite, are main drivers for the interest in distance education all over the world.

Other driving forces are the struggle to fight the increased number of unqualified and unemployed workers and the urgency to cope with the rapidly changing patterns of educational and training needs resulting from the economical dynamics related with globalization (life long learning).

Abundant research has been undertake about the impact of technologies in traditional and distance education universities, and many results have been published and disseminated in scientific journals and internationals meetings, such as (Varis, 2006) (Kramer, 2007) (Selwyn 2007).

New approaches to educational concepts (Downes, 2005) and theories, such as Connectivism (Siemens, 2005), promote the relevance for learning of engaging in meaningful activities in collaborative environments, namely taking advantage of the power of the Internet to enable social networks and distributed learning communities.

Currently much research effort is being done in many different topics, including issues such as Open Educational Resources (Geser, 2007) (D'Antoni, 2008) or Personal Learning Environments (Harmelen, 2006), fostering the way to new ideas and challenges in distance education in HE.

This paper is focused on the partnership established between the University of Aveiro (www.ua.pt), Portugal, and the University Eduardo Mondlane (www.uem.mz), Mozambique, two traditional face-to-face universities, for the development of distance education in HE in Mozambique. This partnership is based on the different experiences both universities have as a result of their different contexts and challenges, but a mutually enriching collaboration

environment, covering operational and strategic aspects along with advanced training and research, has been developed and already lead to very stimulating and promising results.

2. The Initial problem

Founded in 1962, the University Eduardo Mondlane (UEM) is the major public university in Mozambique. The university offers graduation and post-graduation degrees to more than 18.000 students in many scientific areas, including Health, Engineering, Education, Humanities and Social Sciences. With headquarters in Maputo, the country capital, the university owns several branches in other cities (Inhambane, Quelimane, Vilanculos and Chibuto).

Because UEM is the reference university in Mozambique, every year a huge number of students, from all over the country, dispute a very limited number of vacancies. In 2006 for 2.559 places the number of applicants was 13.637, and in 2007 more than 18.000 candidates disputed 2.845 places.

This unbalance between offer and demand has been the main driver for the interest of UEM in distance education. Furthermore, the size of the country and the social and economic condition of the population, are other strong arguments for the need to take advantage from distance education to increase the opportunities for advanced qualification.

The fast growing ratio of the population in Mozambique also stresses the urgency for the adoption of every conceivable solution to spread the opportunities for education all over the country. According to the National Statistics Institute (www.ine.gov.mz), during the period 1997-2007 the population growth was 27.7% (from 16 million to more than 20.5 million).

3. The partnership

The University of Aveiro was, in 1998, the first traditional face-to-face university in Portugal to start a pilot-project on the use of a LMS to improve working conditions for teachers and students. Since then, adoption of Internet based collaborative technologies has spread all over the university, reaching high levels of diversity in the pedagogical and technological approaches. To help the qualification of the teaching staff, a training program was created, that proved to be a major factor of development and dissemination of good practices (Ramos, 2006a).

Since 2002, the University of Aveiro has also promoted several mixed mode, blended learning programs, including master's degree programs. These programs have been offered both in Portugal and abroad, namely in Cape Verde (Ramos, 2006b, 2007), and efforts are currently being done to expand that offer to include international doctoral programs.

The partnership established, in 2007, between the University Eduardo Mondlane and the University of Aveiro, which will be running during the 2008-2011 period, resulted quite natural from the fact that not only both countries share a common language and a historical and cultural background with many commonalities, but because both universities also share the circumstance of being traditional face-to-face universities willing to take advantage from distance education to diversify their academic offer.

The University of Aveiro as a way to increase its competitiveness, due to a demographic decrease in young population in Portugal (Carrilho, 2007). The University Eduardo Mondlane as a way to spread its offer through Mozambique, that faces a demographic increase and a lack of public offering of qualified HE.

This partnership was made possible by the financial support from the Calouste Gulbenkian Foundation, a distinguished private philanthropic and cultural institution based in Portugal that has a most relevant intervention in areas such as Education and Health.

At the University of Aveiro, the project was commissioned to a project team that includes experts and researchers in various fields of expertise relevant to distance education (pedagogy, didactics, ICT). At the University Eduardo Mondlane the project is allocated to the Centre of Distance Education (CEND) (www.cend.uem.mz), which staff includes experts in several scientific and pedagogical areas including distance education.

4. Work undertaken and results already obtained

The protocol established between both universities comprised, for the first year of the project (2008), an ambitious work plan that included: update of the CEND's staff skills in technologies for distance education; support to the decision-making process leading to the identification and development of a pilot-project; support to the improvement of the technological infrastructure of CEND.

As far as the qualification of the CEND's staff, several workshops oriented by experts from the University of Aveiro were held at the UEM, in areas such as multimedia content design and edition, learning objects design and implementation using open source eXe Learning (exelearning.org) software, L(C)MS exploitation and management, on-line tutoring and evaluation, teacher and tutor training for distance education, framework and instruments for the evaluation of the pilot-project.

Further work was also jointly developed as far as the setup and tuning of the LMS adopted (AulaNet as a first approach, currently Chisimba). In addition, some CEND's staff members were offered the possibility to spend several weeks on a training program at the University of Aveiro, in which they also had the opportunity to contact other Portuguese organizations (Universities and companies) offering distance education programs.

This training program run in parallel with the preparation of the first distance education pilot project of UEM: a 3 years degree in Business Management, result of a partnership between CEND and the Faculty of Economics.

The first edition of this program opened with 75 places, and more than 300candidates, from all over the country applied. 77 students were enrolled, from more than 16 different locations in Mozambique, including some rural locations several hundred kilometres away from main cities.

The program, fully at distance, is currently being deployed through Chisimba, a LMS developed by a consortium of Southern African universities, but other Internet based technologies, such as Skype, are also exploited, namely for communication purposes.

The courses content model adopted has been activity oriented. Learning object technology (SCORM 1.2) is being used as a basis to reach platform independence. The eXe Learning software used proved to be a sound basis both for the implementation of the course modules and for the deployment of contents in the two diverse LMS used.

The operational model adopted is sequential and concentrated. The courses are offered in simultaneous sets of 2, each set of 2 courses lasting for 2 months. Detailed instructions about the activities to be executed are distributed to students on a weekly basis, and include definition of learning outcomes, readings, individual and group work, synchronous and

asynchronous discussions. Because most students are part-time students, some flexibility of schedule in synchronous activities is offered, although limited to a set of pre-defined weekly schedules.

Experience is providing very useful indications about critical issues, such as the management of students in synchronous activities. Other interesting aspects are related with the development of a culture of being student at a distance, namely the dynamics and benefits of participation (sharing achievements, difficulties, learning resources, emotions) with other students and the tutors in the social network developed.

Some additional, although limited, support to students is also provided in some facilities in the main cities of the country. This support, basically access to the Internet, was made possible through partnerships with local Secondary schools. These facilities are also used to hold the examinations sessions, which are fully on-line. For the examinations, held every 2 months, all the students must concentrate in the facilities near their homes. Examinations are supervised by professors locally hired.

A second edition of the degree on Business Management is currently starting and being offered to 200 students, and a third edition is also planned to offer 200 additional places in fall 2009.

The following map (figure 1) illustrates the 46 different home locations of the 277 students currently enrolled in the program.

Figure 1: Home location of the students currently (March 2009) engaged in the Business Management distance education programme of the University Eduardo Mondlane, Mozambique.

5. Current and future work

The results obtained during 2008 fostered the conviction that further steps were needed in order to progress in the qualification of the CEND's staff, providing a framework for establishment and development of research interests in Distance Education in HE at the UEM. The experience this staff has been gathering for the last years constitutes a rich basis for further advanced studies, opening the way for the establishment of a comprehensive approach to the problems related with the organization, deployment and management of

distance education in HE in Mozambique, articulating both empirical experience with theoretical conceptual frameworks.

With this aim, a doctoral program in Multimedia in Education was organized, and is currently starting, that will address research issues in distance education in HE such as pedagogical and organizational frameworks, curriculum development, on-line tutoring and evaluation, tutor training, Web 2.0 technology deployment and management. This doctoral program will promote advanced studies and research taking advantage from the direct experience participants have in designing, organizing, deploying and managing distance education. This will provide an opportunity for further study and discussion of past, current and future options, contributing to the development and consolidation of contextualized knowledge.

Furthermore, pedagogical, technical and strategic management support to the CEND's distance education activities will still be in the joint work agenda, contributing to the two-way channel for sharing experiences, good practices, advancements in technology, etc.

This doctoral program will also be, itself, a source of contextualized knowledge development in distance education, because the model adopted will be mainly at distance. Although 2 two weeks period *per* year at the University in Aveiro and some additional face-to-face work in Maputo are planned, much of the work, namely as far as the preparation of the doctoral thesis is concerned, will be held at distance.

6. Conclusions

Traditional, face-to-face, universities all over the world are becoming everyday more interested to take advantage of the technological infrastructures and related teacher skills to reach new and diversified target-audiences. This interest includes the adoption of mixed mode blended learning models, but also distance education on a fully distance basis is attracting the attentions of institutional decision makers.

The Universities of Aveiro, Portugal, and Eduardo Mondlane, Mozambique, working in very different social, economic and demographic contexts, share several common views about the ways traditional universities may undertake to reach theirs strategic aims through the exploitation of ICT and distance education.

Despite those different contexts, that result in different options as far as operational and organizational models and academic offer are concerned, both universities share a common concern about central issues such as pedagogical models, staff training and quality management. Furthermore, both universities recognize that sharing their achievements , difficulties, best practices, and promoting joint research based on these results, is the most sound basis to improve their knowledge about distance education in HE, unquestionable valuable asset for the accomplishment of theirs missions.

This well succeeded partnership, based on mutual institutional and personal respect, also proves that collaborative work between such different institutions, but sharing similar circumstances, may be a very rich and stimulating environment fostering pragmatic and institutional strategic achievements and context based research in new and mutually beneficial directions.

7. References

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