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ABSTRACTS

Competition and Cooperation in E-Learning: Opportunities and Challenges in Higher Education

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E-learning is said to have great potential to improve quality, increase access and reduce cost in post-secondary education and training. Yet the infrastructure and the human capital required to realise this potential is complex and often expensive. Furthermore, cost/benefits analysis of e-learning compared to other delivery modes is often inconclusive.

There is thus a high need for taking an evidence-based and realistic approach to the development and use of e-learning in post-secondary education to clarify the opportunities and challenges for institutions and governments seeking to provide e-learning.

The study on e-learning cases in post-secondary education carried out by the Centre for Educational Research and Innovation at the OECD attempts to clarify these opportunities and challenges by an in-depth analysis based on the questionnaire developed for this purpose. The study will also put forward possible lessons for governments on good ways of supporting e-learning initiatives in post-secondary education.

Central to this study is an in-depth survey of practice at nineteen post-secondary education institutions from thirteen countries. The sample encompasses a wide range of e-learning types and content, a geographical spread, and is diverse in terms of the level of e-learning development. The presentation will cover a number of critical issues that institutions are dealing with in their daily practice with e-learning and possible lessons for governments promoting e-learning in post-secondary education and training:

- Online presence/types of activity
- Online by discipline/level/types of student
- E-learning strategies and rationales
- Learning management system issues and use
- Staff development related to e-learning
- Student access to e-learning
- Impacts on teaching and learning
- Organisational change and barriers for the use of e-learning

- Perceptions of cost in e-learning investments
- Partnerships and networking
- E-learning activities for foreign students and across borders
- Possible lessons for governments in promoting e-learning in post-secondary education

The value-added of this study is that it covers a very wide range of issues linked to e-learning development and practice in post-secondary education across different institutional types and countries based on a detailed questionnaire. In that respect this study is unique.

The results of this study will furthermore in the presentation be compared with the results from other national and international surveys on e-learning practices in post-secondary education. The aim of the comparison is to get a generic view of international trends and good practice in e-learning in post-secondary education and training.

Multimedia Kontor Hamburg - a Joint Venture in Academic E-Learning. Lessons Learned from 2 Years of Inter-Institutional Cooperation

Dr. Ulrich Schmid, Multimedia Kontor Hamburg

With regard to e-learning Hamburg was one of the last "Länder" in Germany to jump on the bandwagon in 2001/2002 - which proved advantageous in more than one way. Firstly, there was already an awareness for e-learning as a means of innovation in teaching in higher education, and secondly Hamburg could avoid some of the mistakes other Länder had made in their e-learning efforts.

The Hamburg e-learning funding programme`s prime objectives are:

- To make use of the opportunities of e-learning and multimedia in order to advance the quality of higher education
- To improve access to science, research and higher education
- To intensify co-operation in development of publications and courses
- To develop and run the essential core facilities for E-Learning (usability, evaluation, production, etc.)
- To constitute public-private-partnerships and to market academic e-learning products

For coming to an agreement on objectives concerning the field of e-learning, multimedia production and the use of ICT in teaching between the Hamburg State Government, namely the Department of Science and Research (BWF), and the universities of Hamburg two intermediary bodies were established in 2001: the “E-learning-Consortium Hamburg” (ELCH) and the “Multimedia Kontor Hamburg” (MMKH).

The “E-learning Consortium Hamburg” (ELCH) comprises 12 e-learning experts delegated from their home universities. The objectives are to develop the strategy of e-learning and multimedia at universities in Hamburg and to identify and assess eligible projects.

The Multimedia Kontor Hamburg (MKH) is a business-oriented joint venture of the six publicly funded universities of Hamburg in the legal form of a limited company with a managing director and a salaried staff of five people. The objectives are to administrate, support, document, and coordinate the e-learning activities of Hamburg's publicly funded universities. At the same time the MKH is responsible for the marketing of digital learning products developed at the universities.

After nearly two years, the government of Hamburg is currently restructuring its e-learning funding programme and rethinking e-learning as part of a process of organisational change at the universities which might be characterised as e-administration or internet-based campus management.

In my lecture I will describe the idea and reality of our activities in Hamburg. Particularly, I'll reflect the inter-institutional collaboration and the goal achievement on three different levels:

1. Technology and Infrastructure
2. Organization and Strategy
3. Product Development and Marketing.

Finally, I will resume our positive and negative experiences and ask what we can learn from that ambitious attempt of an inter-institutional e-learning strategy in higher education.

Experiences with applications made in co-operative models

Francesc Solé Pera, Technology Director, Oficina de Cooperación Universitaria (OCU), OCU: how to turn a cooperative model in a business

OCU is a Spanish company that manufactures software, working exclusively in the development, assessment and implementation of management systems for the University. Their principal product is a university ERP adapted to the Spanish and Latin American markets. It is called **UNIVERSITAS XXI**, and is comprised of the following five management modules: *Students, Finances, Human Resources, E-procurement and Research, a Data Warehouse, a Portal* and an *E-learning* system.

OCU was founded in 1994. There are five founding universities: Universidad Carlos III in Madrid, Universidad de Alcalá, Universidad de Salamanca, Universidad de Valladolid and Universidad de Castilla la Mancha. Some years later Grupo Santander was incorporated as a shareholder, as well as the Universidad Rey Juan Carlos.

Currently, OCU has central offices in Madrid, another in Catalonia and a third in Bogota, Colombia. They had a turnover of 12 million euros in 2003 and have 204 employees.

Between 2000 and 2002, OCU underwent a serious crisis related to quality, caused by the complexity of the ERP that they had developed. Due to this, clients requested the revision of the cooperative model and the entrance of a business model based on market rules. The cooperative model does not guarantee a good quality-price relationship.

The cooperation model is useful if it meets two requirements:

- The product differentiates the university in question compared to others.
- The product is not available on the market.

Today, unlike in 1994, the ERP does not add positive differential values. It is essential like electricity. It should thus be offered at reasonable prices and offering high levels of quality.

What software products can make a difference at a university? For what software products would cooperation be valid? What are the experiences of other European countries? What role do cooperative developments based on Open Source play? These are some of the questions open for discussion within the session.

Academic Portals: the new world of personal services, teacher-student communication and integrated applications. A self-developed Portal

Manuel Vivó Lorenzo, Universitat Pompeu Fabra (ES)

Universitat Pompeu Fabra (UPF) is a young university. It was founded in 1990 and nowadays it has over 8000 students, distributed among 21 degrees and 13 doctoral programmes, ranging from law, economics and humanities to computer science and communications.

The UPF board of trustees decided to integrate existing and future interfaces into a common information and communication network, a institutional portal, that would serve all members of the university community. This project was named CampusGlobal, and its aim was to become a strategic tool in the fields of research, teaching and learning, and administration. The project aimed to change the ways in which the university community worked, taught and learned.

So, the CampusGlobal portal was not envisioned as just a technological platform. More importantly, it represented a commitment on the part of management to making the university run in a specific way. It was a tool that would streamline administrative services and procedures, and would also integrate innovative tools to improve the quality of instruction and learning and promote university research.

The use of information and communication technologies in the students formative process contributes significantly in the way that teaching and learning is carried out in the university. In the UPF, the AulaGlobal, its e-learning tool, was not introduced as a substitute for the teacher and the classroom work, but as a complement that nowadays could be thought of as mandatory.

Implementation of the CampusGlobal project began in 1998, and has been growing since, integrating different functionalities and applications and providing access to the university contents.

In this talk we will introduce the experience and results of the implementation of the CampusGlobal and the effects and opportunities that it has raised and will give a vision on its possible future evolution.

Keywords: Institutional portals, e-learning, information system integration.

Experiences in the use of Peoplesoft

Johan Hendriks, Delft University of Technology (NL)

This presentation gives a general introduction to Delft University of Technology, information about the university's managerial structure and concepts and the information systems used to generate the necessary management information.

Like most universities Delft University of Technology (TU Delft) has an extensive international network, strong research entities and offers course in almost every contemporary engineering discipline. More than 13,000 students are enrolled at TU Delft and there are over 800 PhD students. Research and teaching is provided by a scientific staff of over 2,300 FTEs, with the help of more than 2,400 FTE support staff. The executive board of the university has a clear vision for the positioning of TU Delft, one that is based on research and educational excellence. In light of present societal demands major changes are expected in collaboration between and organization within universities. The managerial concept is based on effective and efficient administrative support and strong ownership of the research and education on the part of the scientific staff. This concept needs to be supported by qualified management information systems.

The history of building management information systems at TU Delft started in the 1980s. A lot can be learned from the first steps with localized Dbase applications and subsequent changes driven by Y2K. Although Peoplesoft has ERP functionality, TU Delft currently has different systems for student administration, finance, facility management and personnel. At the moment it is not an option to replace the existing packages with an overall ERP package. Within the present architecture TU Delft integrates the different packages by using Business Objects and its possibilities to build *universes* of data, retrieved from all applicable databases.

The problems encountered range from data integrity and data availability to constraints imposed by technical infrastructure and privacy regulations.

Nevertheless, the aim at TU Delft is to develop integrated management information retrieved from specialized software packages for the disciplines of the different administrative departments.

New E-Learning Systems: The Case of the University of Aberdeen

Graham Pryor, Director, Information Systems & Services, with Jerome Perera, Manager Corporate Systems and Patricia Spence, Learning Technology Unit Manager

In Scotland today, well in excess of 50% of the population aged 18 to 30 is pursuing courses of higher education. The University of Aberdeen has a student constituency of 11,000 ftes, of whom 9,575 are undergraduates. Twenty years ago its student body numbered 5,500. Of these, 4,843 were undergraduates. This represents a massive increase in demand, particularly in terms of the undergraduate population, which traditional methods of teaching and learning would struggle to satisfy. By happy coincidence, perhaps, the advances made in information technology during the same past two decades offer a means of supplementing and streamlining both

the teaching and administrative resources that have not been able to keep pace with this growth in demand.

In 1998, the University established a small group of learning technologists with the remit to support academic staff with a natural enthusiasm for technology-enabled teaching. They provided problem-solving expertise to small, short-term projects, facilitated staff development in the use of learning technology, and disseminated information about learning technology in general. In doing this, the new Learning Technology Unit (LTU) accrued expertise and credibility in technology-enabled education that enabled it to develop a broader strategic approach of perceived value to the remainder of the University community. This fundamental leap was assisted in 2001 by a grant from the Scottish Higher Education Funding Council, under the Scottish Executive's Knowledge Economy Initiative, which sought to encourage the cultivation of an environment in which IT is a pervasive part of the educational experience. Hence, IT-enabled teaching and learning was given legitimacy, both nationally and within the institution, where it was recognised that real advantage could be secured from the ambitious prospect of a fully enabled electronic learning environment.

At this point, the integrated nature of our information management organisation, the Directorate of Information Systems & Services, proved its worth. It was clear that progress by our corporate systems division toward three-tier technology and Web-enabled applications, designed to deliver a full portfolio of interactive systems to the desktop through a common, user-friendly interface, actually provided a natural path for the delivery of Web Portals not only for administrative activity but as a means of cementing student administration with student learning processes.

Phase 1 of the Student Portal project concluded in July 2003, having provided cost-efficient methods for the management of student personal and academic reference data, with direct links to Central Administration; personalised course and examination timetables, including Web dissemination of examination results; and e-mail links to the Student Support service and academic advisers of study. Phase 2, which commenced in August 2003, continued the enhancement of the student working environment with, for example, the introduction of e-payment, but it also had a new and specific focus on integration with access to learning resources. Its ultimate goal is the creation of a single electronic gateway to all student-managed processes and the development of our learning resources gateway within the Portal is indicative of the central role e-learning now plays at Aberdeen. Through this gateway students will gain easy access to campus-wide resources, including the Library, the VLE and course-specific e-resources. Significantly, the development group spans the LTU and corporate systems teams, and the project board has a direct and active steer from academic and Registry staff membership. It is a business driven initiative with proven business benefits.

Its value to our teaching colleagues is best demonstrated by example and the main body of this presentation introduces the latest 'cut' of the Student Portal and its special postgraduate grants feature, followed by a live demonstration of WebCT, the

University's VLE; The Virtual Laboratory, used to simulate practical experiments in an interactive manner; and LEMUR, our award winning Learning with Museum Resources programme.

Full Time Equivalents

Virtual Learning Environment