Freie Universität Bozen
Libera Università di Bolzano
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Fakultät für Naturwissenschaften und Technik | Facoltà di Scienze e Tecnologie | Faculty of Science and Technology

ICA
Association for European Life Science Universities

ICA Network for Higher Education in the Life Sciences (ICA-EdU)

Conference: Educating the Net Generation in the Life Sciences

Thursday June, 21st 9.00 to Friday June, 22nd 13.00

Abstracts:
Keynote Presentations & Contributed Papers

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Keynote Presentation

Hinterstoisser Barbara, Vice Rector for Education and Internationalisation, University of Natural Resources and Life Sciences, Vienna (BOKU), Austria

How does technology impact on the teaching and learning process -positive and negative effects?

During the last decade teaching has changed dramatically. The principles of didactics have not changed - but the tools have changed, or to be more precise the variety of tools has increased a lot. New technologies impact on the teaching and learning. However, the learning attitude of the students seems to have changed as well. What are students longing for, what do they expect ? Is it more absorbing than scrutinizing the offered knowledge, is it more dialog and communication up to the use of chat rooms or has studying something to do with "fun and action"? How does this influence the teaching itself when possibly students are more familiar with the new technologies than the teachers? From table-writing to video streaming - does it really make a difference? Universities focus on the learning outcomes, discuss skills and competences students should gain, but the starting point has to be considered as well, the knowledge and abilities students got at school and the way of life of the so called "net generation". The presentation will focus on the main challenges of teaching and learning nowadays and will point out some examples of how new technologies - namely multi media tools - can provide adequate learning tools for students.

Johanns Christophe, Communication office of the University of Leuven (KU Leuven), Belgium

Something becomes Someone: thoughts on university and identity on social media

Our students have changed. Did we? What were we doing when they were asking questions, debating, sharing? We were mainly sending news updates like we did for ages. But they were doing what a university should be all about. So how can we join in on the conversation? In order to do so, we need to translate the communication of our big, slow institutions into a fast, interactive conversation partner. Someone that stands for the core values of the university: open, relevant, to the point and creative/innovative. Someone that tells interesting stories and gives real answers to questions, rather than sending news updates. Someone worth following.

Park Julian, Professor of Agricultural Systems and Education and Faculty, Director of Teaching and Learning (Life Sciences), University of Reading, United Kingdom

Delivering excellence in life science higher education (HE)

Policy changes in the UK (students at the heart of HE), increased fees and greater competition in the job market have all raised the student expectation of their HE experience. At the same time Universities are under increased pressure to deliver on a number of fronts (high quality learning to larger numbers of students, research, global agendas, outreach). This paper will consider this changing landscape of HE with particular emphasis on the UK and outline how this may change the expectations of students in relation to their higher education experience and the implications this may have for University teaching. A number of initiatives to enhance the student learning experience are discussed with an emphasis on how technology and the WWW can be used to facilitate learning.

Young Clive P L, Learning Technology Advisor, - Learning Technology Support Service, University College London, UK

Emerging hybrid staff roles in the new e-learning environment

As the complexity of providing education in an increasingly digitally-rich HE environment has increased and student expectations grow ever more sophisticated, we are beginning to see far-reaching changes in the way universities support online learning. At University College London (UCL) innovation over the last two years has focused on institutional tools such as virtual learning environment and associated technologies including lecture capture systems. The uptake among academic departments has been surprisingly rapid, leading to a step-change in our online provision.

This process has been enabled by the emergence of a new cadre of well-qualified teaching administrators (TAs) as critical change agents'. TAs provide a range of 'just in time' support to academic colleagues. They often manage VLE resources, communicate directly with students and facilitate key educational processes such as assessment, feedback and consistent quality standards. Although TAs contribute directly to the student online environment their specific digital literacy needs have so far been rarely recognised or addressed. The presentation will highlight the Digital Department project, funded by the UK JISC and based at UCL, which is analysing the diverse skills and abilities needed in a modern 'digital department', and exploring how can we can benchmark, develop, share and evaluate best digital practice across UCL through a certification framework.

Achieving consistent quality of teaching and learning support is important to students but is undoubtedly challenging in a large, diverse research-led university such as UCL. The project is therefore also exploring how technology can enhance the business efficiency and educational effectiveness of academic processes and whether this form of 'hybrid' provision is changing the role of the individual academic. Our aim is to develop a common framework of digital literacies among a committed staff group and by engaging students, support staff and academic colleagues throughout the process, we believe we are establishing a practical, sustainable model of institutional change which can be applied to academic and other staff groups across our institution and the wider European HE sector.

Contributed Papers

Ahrendsen Bruce L., University of Arkansas, USA

When distance education comes up short: two cases of social science programs

Distance education may be effectively used in achieving certain learning outcomes. However, there are learning outcomes where distance education is inadequate and having students "face-to-face" or "feet on the ground" is ultimately superior at achieving learning outcomes. Programs that have cultural awareness and an appreciation for other ways of doing things in an international context as learning outcomes are programs where distance education may have a role, but student mobility and classroom settings will serve students better.

This paper and presentation will discuss how student mobility and classroom settings are used in two international programs: The International MBA in Agribusiness and Commerce (AGRIMBA) and the Atlantis EU-US Double Master's Degree Program in Rural Development and Agricultural Economics (Atlantis). Both programs require significant international elements that are critically important to their success. The paper will discuss how these programs bring students together from multiple countries to achieve program objectives, such as to expose students to the different international realities of their respective academic subjects and for students to have a comparative knowledge of international business practices. The paper will also discuss how distance education could be incorporated in these programs to facilitate other program objectives.

AGRIMBA is an open international network of academics and professionals whose main objective is to set standards for the programs it oversees (Heijman). The Atlantis Program is comprised of a consortium of five European universities that award the joint International Master in Rural Development and two US universities that award either the MSc in Agricultural Economics (University of Arkansas) or the MSc in Food and Resource Economics (University of Florida).

One theme of the Conference is Session 2 – Supporting teaching and learning during the degree program. A. How does technology impact on the teaching and learning process, positive and negative effects?

Reference:

Heijman, Wim. 2009. "The MBA in Agribusiness and Commerce (AGRIMBA) as a tool in life long learning for professional and academics." Accessed 18 April 2012 at:

http://www.ica-ls.com/images/stories/pdf/standing-committees/AGRIMBA/The_MBA_in_Agribusiness_and_Commerce_AGRIMBA_.pdf

Dodero Gabriella, Free University of Bozen-Bolzano, Italy

Extreme apprenticeship: teaching exact sciences in an experimental way

Exact sciences like Mathematics and Computer Science have been mostly taught at the University level with an axiomatic approach. However, especially in introductory, first-year courses, results are often discouraging. In many Universities drop-outs and failures at exams account for a large percentage of students, and among those who pass the exams, many achieve low grades, and proceed in their academic career with difficulties. Extreme Apprenticeship has been recently introduced as a way to improve on the current situation. It emphasizes hands-on, experimental approaches, and it stimulates the role of positive feedback in enhancing student self-perception and motivation. Results obtained so far are positive: academic performance of students has noticeably improved in all courses employing Extreme Apprenticeship, with respect to previous editions taught in the traditional ways, without lowering the threshold of expected learning outcomes.

Filipski Cornelius, Office of the Vice President for Academic Affairs, University of Hohenheim, Germany

Teaching with augmented reality - mobility wherever necessary

This paper presents the project „mobile lehre hohenheim“, that pursues the implementation of mobile learning at the university of Hohenheim. The technical, didactical and institutional framework of this project, as well as the status quo of the process of development will be presented and discussed, following the assumption, that technology allows us to teach differently - and within the mentioned context possibly better.

From winterterm 2012/13 onward mobile learning with the use of augmented reality will be possible at the University of Hohenheim. With the app "lernorte" (places of learning) students can get course-specific data at real places via their smartphones. This gives teachers at Hohenheim the opportunity to implement situated learning in their courses. The stutdents will work and learn at specific places either on campus or in related areas at their own pace and in individually framed situations. Pilot courses at each of the three faculties will make use of this app, that enables teachers as well as students to "tag" places and leave data and comments.

Specific didactical concepts are being developed for each course using mobile teaching in Hohenheim. These concepts are an essential aspect of „mobile lehre hohenheim“. We see the technology itself as an option, not a didactical concept, thus we explore the advantages of mobile learning for each course. The implementation is accompanied by intern evaluations, that deal with the image and use of mobile learning, and expectiations that come along with this new field of teaching and learning.

Lewark Siegfried, University of Freiburg, Germany and President of the SILVA Network

Gender competence in international courses: comparing classroom and blended e-learning courses

Courses on gender issues in natural resources management have been held over a number of years in two different settings, both as electives in international Master programmes developed from earlier face-to-face-courses:

- Blended e-learning course (BE) "Gender roles in environmental management (internet course)"
- Two weeks block course (IP: intensive programme) "Spring school GenCom: Developing gender competence in higher education programmes on natural resources management"

The courses have been organized at the Faculty of Forest and Environmental Sciences of the University of Freiburg, including students and PhD researchers from other universities, mostly from Europe. Partner universities were University of Joensuu (BE), BOKU in Vienna, SLU in Umeå and SGGW in Warsaw (IP).

The blended courses was started with three to four days in classroom including field trip, followed by a phase of several months of e-learning with use of e-learning platform. The IP is a compact classroom course, including field trip, of ten days with one day of cultural programme in between, where an e-learning platform is used for preparation, uploading of course material and assignments.

The blended course was held without specific funding. The IP has been organized as an Erasmus Intensive Programme where teacher and student mobility were supported by an EU grant *(DE-2010-ERA/MOBIP-Ant-2-28409-1-29)*

The block course gives many didactical options. Use of e-learning platforms may add to these options as for other on campus courses. E-learning allows distance education, courses for students anywhere. Didactical options are different, but also manifold. Blended courses, when possible, are combining face-to-face and distance phases with their respective merits.

Moulton Mike, Head of the Learning Center, Norwegian University of Life Sciences, Norway

Web Conferencing: opening a network of possibilities

Universities are at the hub of large, dynamic learning communities. To carry out core activities within education, research and social engagement, faculty and students alike rely on an array of learning resources available in these communities. How and when resources are linked and used in the learning process will have profound effects on learning outcomes. Goodyear (2001) talks of the concept of "networked learning"; learning in which ICT is used to promote connections between a learning community and it's learning resources. Can we use emerging technologies to achieve a more pedagogic, imaginative and cost effective use learning resources? In this paper, I explore the use of one particular technology, a web conference system, from a networked learning perspective. As faculty members, we fill our days with teaching, assessing, researching and advising; or with planning such activities. All have time, logistical and financial implications. In each case, we require communication or a connection with different resources, particularly human resources. I present specific examples of how the Norwegian University of Life Sciences has used a web conference system to support and enhance these core University tasks.

Nickenig Christoph, Free University of Bozen-Bolzano, Italy

Computer-based language testing in a multilingual context

This presentation wants to give a short overview of the trilingual model of the Free University of Bozen-Bolzano. In October 2010 the University Council has adopted a new language policy that clearly defines entry and exit levels for Bachelor und Masters' students. At the same time the Language Centre has introduced new computer-based language exams on various levels of the Common European Framework (A2, B1, B2 and C1) in English, German and Italian. The introduction of the new language policy and the new exams has produced a series of collateral effects such as the necessity to foster autonomous language learning by introducing individual language advising, creating a MOODLE-platform and offering blended learning. All this has contributed to get the language centre more in line with the characteristics of the Net Generation.

Rekola Mika*, Riitta Kilpeläinen, Elia Liitiäinen, Sari Lindblom-Ylänne, and Belle Selene Xia,
*Department of Forest Sciences, University of Helsinki, Finland

Discipline specific and general skills related to employment and career success

The question of what skills students should have when leaving the university is explored here analysing students' learning outcomes and subsequent working career. The study is thus a backward looking evaluation, in other words, it is of special interest to analyse which learning skills obtained during studies have been relating to appropriate employment and prospective career.

Skills are analysed here under the concept of learning outcomes which we mean with all knowledge and skills where-ever they are learned, both intended and unintended (Eisner 1992, Allan 1996). Learning outcomes are divided into three: general (transferable) skills, academic skills, and subject-specific skills. Generic skills are furthermore divided into 30 separate skills among which ICT, information acquiring, and information processing skills are evaluated. The success of working career is measured with monetary (salary) and non-monetary rewards of work, the length of working periods, as wells as relatedness of work and studies.

The sample, collected using an internet survey in 2011 and data enquiries from student registers, consists of all university foresters and polytechnic forest engineers (university of applied sciences) graduated between 2000 and 2008 in Finland. There are altogether around 430 individuals in the data. Some preliminary results are presented.

References:

Allan, J. (1996) Learning outcomes in higher education. Studies in Higher Education. Vol. 21, Issue 1.

Eisner, E. (1992) Objectivity in Educational Research. Curriculum Inquiry. Vol. 22, No. 1, 9-15