EDEN 2010 ANNUAL CONFERENCE

Media Inspirations for Learning

What makes the impact?

EDEN 2010 Annual Conference

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BOOK OF ABSTRACTS

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Introduction

The volume of information we get is enormous and there is a revolutionary change in the ways we use media. New social media culture is extending human capacity, reshaping identity and community. The awareness of the many forms of digital media is increasing and so are the skills that allow better intellectual and emotional understanding.

The diffusion of digital creative content and the multiplication of online and mobile platforms, the changeable, participatory, rapidly re-created information generate unprecedented opportunities for the world of learning. Teachers' and learners' abilities to make informed and diversified choices for media now make up a significant part of their skills portfolio.

The many economic, social and technology drivers are changing the nature and methods of education and training. In particular, the informal learning field is being transformed and re-positioned. All this represents huge challenges for the professional development of teachers, tutors and instructors. A quest for new structural and institutional models is emerging within the learning society.

In Europe, content industries create added value by exploiting and networking European cultural diversity, with innovation being part of the Lisbon strategy beyond 2010. The EU i2010 initiative aims to boost competitiveness in the ICT sector and create a single European information space.

New Criteria for New Media in Learning

The opportunity offered by digital media and virtual reality leads to the development of new organic learning environments. A major challenge is how to turn these environments into instrumental knowledge. New elements include development of mobile, ubiquitous and contextual computing, microlearning, functional networking, direct access to databases, with which to build up integrated knowledge bases. Within the new distribution channels, trends in the media habits of learners show significant changes.

The related questions to be addressed at the EDEN Valencia 2010 Conference are:

- Where do new media take us as educators?
  - What in the end is their suitability for education?
- For teachers and learners, what is the value of being active in new media?
  - Having a presence on Twitter?
  - Being an active blogger?
- What is the validity of knowledge in Web 2.0
  - How can we measure recognition and achievement?
- How do media portray the changing open and distance learning practice?
- How can we control the potential of media to ensure that they work for all?
- How all is this affecting the modes of knowledge organisation?
- With the convergence of media, how are the major issues of learning mirrored in the "traditional" media channels, in TV, newspapers and journals?

Openness Emerges

Organically linked to these developments are the further changes in form and function, representing the greater and greater potential of open collaboration and information sharing. Globalization, information technology and the flow of information are transforming our economies and communities. The evolving new openness is unlocking the potential effectiveness in implementing open ICT ecosystems and enabling innovation and growth.

Collaborative creativity, connectivity, access and transparency, are revolutionizing how we communicate, learn, connect and compete. Openness reshapes ICT ecosystems, and makes it possible to rewrite business models and deliver customized services to citizens. Increasing these capacities helps to create flexible, service-oriented ICT applications in the world of learning. This has also profound implications for the publishing industry, leading to a kind of new knowledge and media economy.

EDEN welcomes and acknowledges the valuable contributions of the European professional community of learning to the development of future mindsets for media in learning at the 2010 Annual Conference.

András Szűcs   Alan Tait
EDEN Secretary General   EDEN President

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E-LEARNING 2.0: NEW TOOLS FOR NEW EXPERIENCES TO HELP OVERCOME OLD PROBLEMS

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There is ample evidence in research literature that using media and multimedia for teaching online are becoming standard instructional practices and the dissemination of that information is being facilitated through traditional methods such as books and journals as well as through *new media* sources such as digital communications, electronic databases, the web and Web 2.0 social networking applications.

The main perspective of this paper is that hybridization of the asynchronous textual mode with rich multimedia and Web 2.0 technologies serves as a means for using *new tools* to give students *new experiences* that help to increase their learning success and *overcome some of the problems* that are often a by-product of the online learning context. The paper provides examples of Web 2.0 applications that are used within the teaching-learning process to overcome these problems.

COMBINING SOCIAL WEB TOOLS TO PROMOTE COLLABORATIVE AND REFLECTIVE LEARNING IN DISTANCE EDUCATION

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Wikis, blogs and other social software (Web 2.0) tools have been successfully used to encourage student interaction (Richardson, 2006). Wikis are useful to promote collaborative learning, and are more than mere repositories of user generated content (Wheeler et al, 2008). Blogs have been used to encourage and support reflexivity and can facilitate dialogue on specific topics (Kop, 2007). The two tools normally serve different functions. Wikis act as community spaces, whereas blogs are predominantly the domain of the individual. Social software tools can provide added value to the learning process, and this is reflected in the growing literature on the topic. Less is known about how wikis, blogs and other Web 2.0 tools might be combined to create dynamic new learning environments. In this paper, combinations of the two tools are explored, with reference to two case studies of recent initial teacher training programmes where blogs and wikis were blended to create new virtual learning environments. Students offer their views about using these tools, and reflect on the strengths and weaknesses of this approach. There is also discussion about aggregation of content and a theorisation of some of the less positive outcomes, such as how mixing community and personal spaces can create tension and conflict. A new 'learning space' model is presented which aids visualisation of the tools, territories and processes that are brought into play when content and Web 2.0 tools are mashed up within the same space.

Wikis and collaborative learning

Research into wiki use in formalised learning settings reveals that students enjoy using them as they engender a sense of ownership, and they enable students to discuss their ideas in close proximity to the digital artefacts they are creating (Richardson, 2006; Wheeler et al, 2008). Students are less keen for others to edit their work, and need encouragement to move from solo engagement to learning as a member of a community (McConnell, 2006).

Blogs and reflective learning

Blogs facilitate reflexivity for learners in formal settings, through a process of recall, writing and 'impression management' (Goffman, 1959). Reflection on practice can encourage professionals to change their attitudes or values (Bolton, 2006). Moreover, reflective practice can encourage students to write imaginatively and has can encourage more accurate and critical methods of articulation (Bold & Hutton, 2007).

Combining tools and mashing content

The ability to combine tools is a recent innovation and is a concept that has been discussed previously (Boulos et al, 2006). The pedagogical uses for the merging of tools are not yet apparent, but with a little creative thought and planning, distance educators should be able to exploit similar space combinations to generate useful virtual spaces for collaborative and reflective learning and encourage innovative new approaches to learning.

Conclusions

Wikis and blogs are distinctly different learning tools, and offer different affordances. Wikis can offer community spaces and one-stop-shops for group communication. Blogs act more as personal reflection spaces but can also be creative spaces for small groups. Both tools were used for communication purposes, and both exhibited the potential to support and amplify student interaction. It is unknown to what extent the overlap of blogs and wikis might yet create environments that support negotiation of meaning and construction of knowledge. However, from observation of learner engagement during the classroom teaching sessions, and their generally very positive feedback, it can be deduced that students did manage a form of collaborative construction of knowledge using the two tools. The paper provides several examples to support the argument that distance students can benefit from similar combinations of social software.

ANALYSING NEW E-LEARNING CULTURE

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Introduction

Learning is taking place in diverse forms and environments, which often carry fundamental different values as they are expressed in different pedagogical rituals, follow different ideals, and express their merits in different symbols. It is important to recognise the value of each of these often carefully crafted attempts of teaching and learning but also to realise its different natures. In that regard the underlying hypothesis of our paper is that the very nature of these differences can be understood as diverse and deeply rooted into individual experiences, as it is the case with different cultures. In this paper, we focus on what is often described as e-learning 1.0 and e-learning 2.0 and make an attempt to answer the question which factors constitute a "new learning culture".

From e-learning 1.0 to e-learning 2.0: A culture change?

Learning preferences are perceived quite diverse, depending on the position and involvement of a stakeholder in the learning scenario. The perception and description of elements of a learning culture, as it would be given by a student, might vary considerably from those, given by a teacher, professor or manager of a school – although they are all part of what constitutes learning culture. Also, cultural differences are a strong variable, which can explain to a large extent the preference set and behaviour of learners. By adapting a 4-layer onion model into the context of e-learning, we show in the paper that cultural understanding particularly related to heroes (such as personalities of public life, science and religion influencing personal opinions), rituals (such as communication models, habits and preferences of learners and teachers and conflict solving strategies), and values (such as didactical paradigms, gender related issues and the relationship to educators and other learners) can be understood as a result of an interactive process between society, environment, and individuals.

Often, it is expressed that the difference between e-learning 1.0 and e-learning 2.0 lies in its underlying value of being a shift from a more acquisition oriented to a more participation-focussed understanding of learning. How can this be paradigm or a replacement in the sense of a *new release*. Strictly speaking it is not even about a new technology, a new model of learning or a new, separate, innovative variety of e-learning. E-learning 2.0 rather describes a number of developments, trends and points of view, which require change from teaching to learning. The new point of view essentially connects e-learning with five characteristics:

- Learning takes place always and everywhere (ubiquitous) and therefore in many different contexts.

- Learners take on the role of organizers and teachers.

- Learning is a life-long process, has many episodes and is not (only) linked to educational institutions.

- Learning takes place in communities of learning: Learners participate in formal, as well as informal communities.

- Learning is relevant in informal as well as in non-formal, and is no longer bound to formal educational processes, as an associated with educational institutions.

While e-learning 1.0 follows a broadcasting logic, which is mostly based on an understanding of teaching as being transmissive, e-learning 2.0 emphasizes the metaphor of "participation". In e-learning 2.0, environments, social software, and learning services are being combined according to individual needs. As phenomena like e-learning 2.0 are considered, it is key to point to the primacy of didactics and first of all, ask for educational aims, and then choose appropriate teaching/learning scenarios and methods, as well as the necessary tools to put these into action.

Conclusion

To conclude, it can be said that e-learning 2.0 involves fundamental and profound changes. Given the focus of this paper on learning cultures, it can be stated that our described 4 layer model gives a fruitful model for analysis of changes which occur between e-learning 1.0 and 2.0 and shows that the changes can be analysed under the light of learning cultural factors. Further on, we have shown that the shift from an e-learning 1.0 scenario to an e-learning 2.0 scenario in the light of a cultural analysis can be considered as a cultural change and e-learning 2.0 thus suggest a new learning culture.

THE WONDERFUL ENTROPY OF EUROPEAN NETWORKING ON LEARNING INNOVATION: LESSONS LEARNT FROM AN ARTICULATION ATTEMPT

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A Google search for "European+network+learning+innovation" returns 547,000 results. Although this is nothing if compared to the almost ten million results of "european+network+education", it gives an understanding of the massive effort presently taking place in Europe to share knowledge around the topic of learning innovation.

In the period 2008-2009, the European Commission has supported the Learnovation project, with the aim – among others – to facilitate the articulation among the main European networks dealing with learning innovation, and to support the awareness raising activities of the European Year of Creativity and Innovation. This work resulted in a number of gatherings and in an increased coherence among the activities of the involved networks, and is presently being brought forward by the Learnovation Stakeholders Roundtable, an aggregation composed by eight major European networks active in the field of learning innovation.

The present paper presents some lessons learnt and some point for reflection resulting from this articulation effort, and is based on a research conducted with the aim to understand the existing coherence among the activities run by EU networks in the field, to spot existing overlaps, and to review how much those networks were actually engaged in mobilising their energies around the work of the European Year for Creativity and Innovation.

The paper starts with some theoretical reflections on the nature of networking at different levels and on the added value of networking, especially in terms of knowledge production, sharing and dissemination. Some definitions of networking are provided, together with a reflection of how, using Barbasi words, "network thinking is poised to invade all domains of human activity and most field of human inquiry".

It then presents the results of a research conducted – through an online survey and through telephone interviews - among representatives of thirteen European networks active in the field of learning innovation, namely EADL, EADTU, EAEA, EDEN, EERA, EFQUEL, eLIG, EUA, EUN, EuroPACE, NADE, EFMD, TEL-EUROPE. This research allows to formulate some specific conclusions on the extent to which the participating networks have aligned their policy agenda and their activities in the wider framework of the European Year for Creativity and Innovation 2009.

On the basis of these results, some conclusions are drawn on how networking could be enhanced in view of promoting creativity and innovation in and for learning in Europe.

First, a certain level of consensus exists among the participating networks on the actions to be undertaken in view of fostering creativity and innovation in Europe, together with a significant level of convergence around the messages related to learning system in the EC Manifesto for creativity and innovation. Second, a relatively high level of agreement on the networks role in fostering the transition towards a knowledge society is present, while there is less agreement on the "conditionals for change" i.e. the enabling factors or leverage factors of change on which to intervene. Third, all contacted networks agree that, in view of mainstreaming existing innovative and creative practices into learning systems, virtuous circles among the different levels (networks level, members levels, and grassroots level) should be encouraged, supported by a definitive evidence base on 'what works, for whom and under what conditions'. Finally, agreement exists on the fact that maintaining high the momentum of collaboration is the key challenge for maintaining the impact of the European Year of Creativity and Innovation 2009: despite the different missions and stakeholders involved in each of those networks, a growing awareness about the importance to collaborate and create a critical mass exists: the challenge is now to cope with the existing entropy and to bring forward a coherent policy and practice agenda for European innovation and creativity in learning.

VIRTUAL DESERTS AND REAL LEARNING: THE XT-LEARNING CONCEPT IN AN INTEGRATED WORK-LIFE KNOWLEDGE MATRIX

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Background

In looking at the ever-increasing impact of new technologies and, in particular, social networking and mobile technologies on our understanding of learning, we are drawn into a deeper debate about meaning, learning and control where learners increasingly have the means and capability to alter content and application. This paper considers the context of advanced work-based learning and a conceptual paradigm being developed around extended and enhanced learning in employment. The development of meaningful lifelong learning paradigms needs to operate globally, with constant communication with peers, while adapting in parallel ways to the imperatives of sustained change. The paper also addresses some of the contradictions inherent in the appropriation of the concept "virtual".

Extended approach to workplace learning

Extended Learning (XT-learning) is a multimodal learning concept, integrating learning and practice in work-life contexts. It is a result of intensive collaboration between two innovative learning developers – Context Learning Finland and Universal Learning Systems (Ireland). It develops innovative engagement with workplace learning to enable higher levels of flexibility, interactivity and integration with workplace practices. It provides unique, individual learning experiences and support to newly acquired knowledge and skills. The XT-learning concept builds out towards new technologies and back in a continuous loop of enhanced understanding based on competence, shared meaning and empowerment.

Integrating workplace learning and practice

XT-learning utilizes the most applicable elements of advanced interactive media, web and mobile technology as pedagogical concepts for optimized continuous learning experience and outcomes. It provides a common, easy-to-use interface and easy access to the learning path. The learning process, focuses on a pre-defined set of topics, initiated in the web and maintained by supportive, activating elements. It is very suitable for learning work-related skills, leadership and management. The concept can be applied to any existing e-learning course as an add-on – significant for work-based learning where autonomy, problem identification, customer service excellence and quality assurance are essential for performance. The XT-learning concept uses

- Core e-learning content
- Integrated video sequences and integrated media clips
- Pre-structured exercises
- Tasking of user to deliver/generate content
- User-instructions which guide the user through the learning path.

The learning path can be accessed by desk-/laptop or mobile devices. One of the first applications of the XT-learning concept was *Crisis Management Simulation* – initially designed for corporate managerial training. As the user passes simulation stages, situation updates are provided. Fed back through the mobile device at different stages, rapid and successful decision-making is rewarded. The case is summed up and critical learning factors are explained. The XT-learning concept builds on practical experience and insights and facilitates different learning styles. Located in a rapidly evolving labour market, XT-learning appropriates both technologies and learner-motivation perspectives. It provides a flexible and dynamic resource to extend and deepen learning. It does this through providing frameworks of tangible meaning as well as understanding. It extends learner buy-in by entrenching ownership of learning in a real and tangible process. Real-time, on job learning is driven by the disruptive innovation of learning designed to be meaningful and sustained via advanced technologies.

THEORY INFORMED DESIGN OF NETWORKED TEACHING AND LEARNING: FOCUSING ON FACILITATING OF DEMOCRATIC DIALOGUE

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This paper explores, from a theoretical perspective, the methodological potential of digital democratic dialogue as a vehicle for enhancing intercultural collaborative education in networked learning environments. It examines the dialogical approach to design, which has been practiced, developed and unfolding within parts of MIL (Master programme in ICT and Learning) throughout the last 10 years, guided by a design based research perspective. Theoretically, among other theoretical positions, the paper draws on Wittgenstein's notion of 'language games'. The paper makes a plea for the notion of language games as a means of identifying the smallest analytical unit of democratic dialogues in digital negotiation of meaning. Departing from previous research, the paper presents a theoretically based conceptual framework based on the notion of "collaborative learning in online communities of practice" (Dillenbourg et al., 1995; Harasim, 1995; Koschmann, 1994; Wenger, 1998) for understanding and identifying collaborative knowledge building dialogue for democratic citizenship. This includes identification of an alternative analytical and evaluative unit in distributed collaborative knowledge building on the Web, inspired by the concept of "language games" (Wittgenstein, 1974). I also discuss implications of this for design learning processes that allow students to collaboratively develop "knowledge tapestries" through meta-awareness of how such language game structure is developed. The paper builds on previous reports on collaborative knowledge building (e.g. Sorensen and Takle, 2001).

Previous pilot studies (Sorensen and Takle, 2001) focused on analysis of individual comments posted by students in the Global Change course and the influence of setting requirements on higher-level thinking skills in advance of submitting the comment on the web. It was tentatively concluded that the hypothesis was confirmed: that by explaining the characteristics of the knowledge building process, and by evaluating student discussion on the basis of their reflected use of these characteristics, students will measurably increase their use of these characteristics, which presumably will enhance their learning. In the process of extending the analysis of previous studies, it was not possible to escape the vague observation and interpretation that somehow the attempts at promoting true learning were falling short of the mark. Despite widespread use by students of knowledge building skills as previously described, the discussion threads built from these comments frequently were fragmented and lacked the intended coherence and social intensity. The conclusion was that, in the process of establishing the requirements on use of knowledge-building characteristics in dialog, the instructor had inadvertently promoted a sense of individualism among students. The dominant knowledge building characteristics used by students in responding to the evaluation scheme was "articulation", i.e., explaining a new concept (Stahl, 1999). Many students evidently interpreted the requirements as suggesting that they should independently drill deeper into knowledge bases to find more and more interesting information to bring to the dialog. The resulting "dialog" frequently could be more accurately described as a "collection of monologs". Students were, indeed, finding new facts and information that expanded the database of the course and added new dimensions to the required readings, but were students actually reading each other's contributions? Was this new volume of comments really contributing to learning? Despite the building of extensive threads, were there true collaborative learning taking place? To examine this issue further, the assumption was made that the previous focus of analysis was misdirected and that we should focus on the *thread* or *collections of threads* rather than the individual comment as the analytical element in evaluating collaborative learning. Acknowledging this shortcoming of previous attempts revealed that the approach had inadvertently suppressed the social element of dialogue: the over-emphasis on contributions that can be created individually (i.e. without collaboration) was suppressing meaningful interchange among students and suppressing opportunities for true collaboration. A rich body of literature exists on the meaning and role of collaboration in learning as well as on the analysis of dialogue. In the following sections, a brief overview is given of some of the relevant perspectives on the importance of these elements in learning and from which I hope to draw guidance for constructing collaborative online learning environments that are well grounded in theory.

TYPOLOGY AND ILLUSTRATION OF GENERIC COMPETENCIES IN A HYBRID LEARNING ENVIRONMENT

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Dynamic and flexible market structures of modern economy imply similar agile consistent images of alumni and also for future managers. Such agility can only be achieved through holistically, self-directed and self-organized action. The future meaning of competencies, which shall empower people to a self-organised accomplishment of future challenges, is an essential criterion. The increased importance of generic competencies influences the higher education. Methods of learning and teaching processes have to be designed modern, interactive and synchronic to actively participate in structuring the success of the new market challenges.

The education of generic competencies in hybrid learning environment is marked through a methodical oriented parameter on teamwork and therefore for interactivity in heterogeneous units. Different pronounced team participants can have a higher learning result as well as a higher proficiency level than in homogenous learning groups.

Fields of competencies are characterised by multiple dimensions. According to the meaning of Meyer and Klapper (2006) the amount or number of their respective dimensions can be described as the so-called width of competencies. In according to this, from the scope of the individual graduation within the competencies, the so-called depth of competencies can be deflected. Missing characteristics in the width of competence can either be compensated by the specific combination of available competence or equalised by available differences in the depth of competencies (Figure left side).
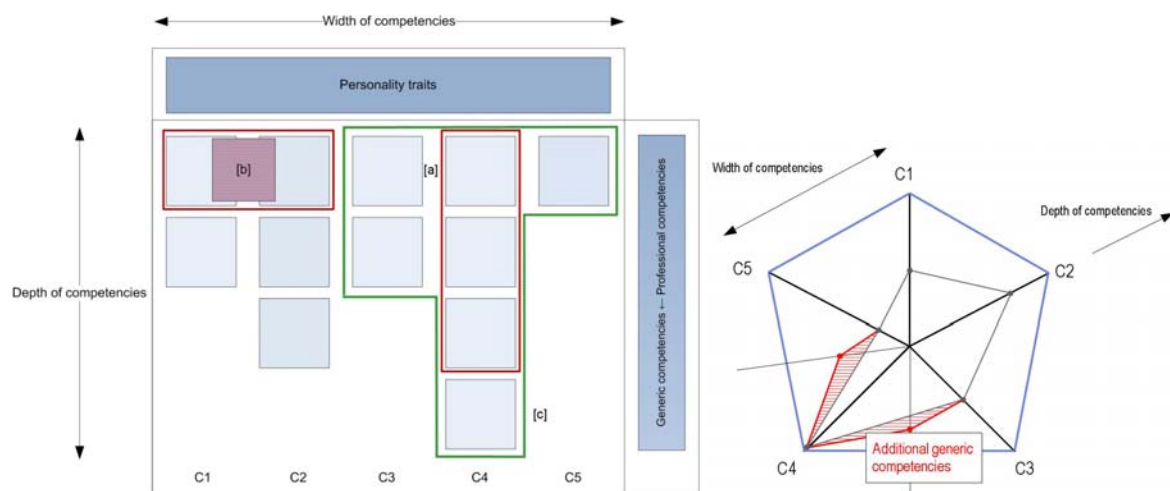
Figures: Model of competencies in multiple dimensions (left) and additional generic competencies (right)

Following the reflection on competencies, in which a growth can be realized alternatively by gradually increase or through a combination of two or more groups of competencies on the same level, the advanced approach is concerned with the training of interdisciplinary competencies.

According to the chosen approach it is possible to describe the concentration of competencies within existing network structures of multiple relationships (Figure right side). The actual quality of self-development can be marked with a fixed value, based on the depth of competencies. In its simplest expression, this meets in a unique benchmark fed by several skills. On the one hand, thus, of clearly structured concept of competencies is turned away, on the other hand it allows the combination of individual competencies.

RESPONDING TO THE PERFECT STORM: IMPETUS TO CREATE THE EDGELESS UNIVERSITY?

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For better or for worse, we are seeing profound change in society, the workplace and how learners live and work. In today's interconnected technology-supported and driven world, learning typically takes place in physical, virtual and remote places. It is an integrated, highly technical environment. Educational institutions worldwide have access to a range of information and communication technologies which is creating exciting new learning and teaching opportunities and is challenging existing practice. Online learning is now part of much of mainstream higher education and innovative learning approaches have the potential to transform the industry. Rapid changes in the nature of the workplace, work (new jobs, new careers), the structure of organisations, and the pervasive presence of networked technologies are requiring a shift in focus in the world of education and training. A skill learned this week may be out of date the next making it apparent that traditional ways of working in educational institutions are unsustainable, requiring an "adapt to survive" imperative. In today's knowledge economy, the role of higher education is being redefined. Hilton (2006, p. 1) suggests that this may be viewed as "a perfect storm, born from the convergence of numerous disruptive forces ... [and] as the dawn of a new day, a sunrise rife with opportunities arising from these same disruptive forces". How an institution chooses to respond to the disruptions can shape its future direction. These disruptive forces do not necessarily indicate a problem and may, in fact, result in positive outcomes according to the diverse contexts in which they occur.

Using technology in innovative ways can be at the heart of institutional change but this does not mean building rooms full of computers on a university campus. The internet, social networks, and collaborative online tools allow people to work together more easily and the provision of open access to content can be both the cause of change for universities, and a tool with which they can respond. Lang (2003) has used the term "edgeless" to describe cities subject to a certain type of sprawl. Universities too are experiencing "sprawl". The function they perform is no longer contained within the campus, nor within the physically defined space of a particular institution, nor, sometimes, even in higher education institutions at all. The university is becoming defined by its function – provider and facilitator of learning and research – not its form. An example of an Australian university initiative to meet these challenges is the establishment of the Australian Digital Futures Institute (ADFI) at the University of Southern Queensland (USQ), Australia. USQ, an Australian regional university and by its very nature "edgeless", has offered distance education for more than 30 years and has over seventy-five percent of its learners studying at a distance. The strategic focus of ADFI is to identify, test, and promote the application of new and emerging technologies with a view to transforming learning and teaching practice and research activity across the university, within and across disciplines and extending to national and international collaborators.

The adoption of various information and communication technologies in higher education has tended to change teaching from what was traditionally a private or behind closed doors activity to the opening up of courses to scrutiny in terms of content and processes. The implementation of flexible learning creates both opportunities for innovative learning and teaching practice, and provides challenges as academics seek to adapt to changing educational environments. The trends in and impacts of the use of information and communication technologies in the higher education sector mean that change is an ongoing, organic factor of tertiary education where there is no point in time at which everyone can declare a victory and go back to normal life. This is not necessarily something to be feared as it promises to offer exciting challenges. The key to organisational change and sustainability is to embrace the disruptive forces, exploit the energies created by the perfect storm, accepting that this may require significant change in the cultural orientation and behaviour of stakeholders. A need for shared vision, consultation and collaboration, an institution-wide response, a commitment to a culture of "openness" and a willingness to embrace an element of risk are promoted by the authors as key to achieving this change.

THE USE OF MEDIA IN DISTANCE HIGHER EDUCATION: THE EXPERIENCE OF THE BRITISH OPEN UNIVERSITY

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Drawing on the experience of the British Open University, this paper explores the impact which changing media technologies are having on the delivery of teaching and learning, and on the ability of distance teaching universities such as the Open University to extend their reach and make connections between informal and formal learning. The paper traces the history of the Open University's engagement with media from the early days of its partnership with the BBC to its current engagement with Web 2.0 and the development of a multi-platform open media strategy.

In order to address these issues, the paper defines what is meant by 'media', tracing its development from linear radio and television broadcasting to interactive web technologies. The key features of these different technologies are considered, along with an overall assessment of their impact on higher education. The key argument advanced here is that communications and media technologies are now intrinsic to distance higher education.

In response to these challenges and opportunities, the British Open University has reviewed its broadcasting and media strategy and identified three key objectives: (1) to use communications and media technologies to enhance the quality and attractiveness of learning and to strengthen pedagogy; (2) to use those technologies to facilitate networking and community building among students, and between them and their teachers; and (3) to use media technologies to maximise reach and widen participation in higher education through creating informal learning opportunities and bridges from those into formal learning.

Given developments with technology, the emphasis within the Open University has increasingly been towards the use of digital technologies as an addition to high quality, high cost, linear radio and television programmes produced in partnership with the BBC. Digital technologies have enabled the University to set up a number of different delivery platforms; they provide the potential for much greater interactivity with and between students; they enable reach across national boundaries; and they are a vehicle for widening access to higher education. The University's relationship with the BBC is increasingly taking account of the new opportunities presented by digital technologies.

A digital media strategy is not, however, without its contradictions and tensions - these are acknowledged in the paper. On the one hand digital platforms are a key mechanism for opening up access, but only to those who have digital machines. It needs to be recognised, however, that the costs of digital machines is rapidly reducing and their use around the world steadily increasing, facilitated by the growing sophistication of mobile devices. This greater availability offers new opportunities to higher education.

THE OPEN UNIVERSITY LEARNING DESIGN INITIATIVES – NEW APPROACHES TO SUPPORTING THE DESIGN OF LEARNING

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The paper will provide an update on the OU Learning Design Initiative (OULDI) (http://ouldi.open.ac.uk), which was first presented at EDEN 2007 (Conole, 2009). The aim of OULDI is to produce a range of tools, methods and approaches to help teachers make more informed design decisions. Tools produced include CompendiumLD, which is a visualisation tool for design and Cloudworks, a social networking site for sharing and discussing learning and teaching ideas and designs. Our empirical data informs the three main strands of our work: representing pedagogy, guiding the design process and facilitating the sharing and discussing of designs. Conole (2009) describes the origins of OULDI. Conole, Brasher et al. (2008) describe CompendiumLD and how it can be used to help make designs more explicit. Conole and Culver (2008) describe the design and evaluation of the Cloudworks site. Related to this work is the OLnet initiative (http://olnet.org), which aims to provide a global network of support for researchers and users of Open Educational Resources (OER). An important strand is application of the OULDI to an OER context. Initial findings from this work are described elsewhere (Conole and McAndrew, forthcoming; Conole et al., forthcoming).

The presentation will provide an update on three aspects of our work: conceptual tools, a visualisation tool (CompendiumLD) and a collaboration tool (Cloudworks). We have now developed a series of learning design conceptual tools. These visual representations can be used to describe a course from a micro-level (say a few hours worth of study up to mapping a whole course. They can be mapped out using pen and paper or represented in standard visual and mapping tools. We also have an excel spreadsheet and a specialised visualisation tool, CompendiumLD. Conole, Brasher et al. (2008) provide more detailed information on the tool and associated technical development; only the salient features are described here. Compendium comes with a predefined set of icons (question, answer, map, list, pros, cons, reference, notes, decision, and argument). Our work to date demonstrates the power of visual representations as a means of make designs explicit and hence sharable. When asked what would help them make more effective use of technologies, the majority of teachers say they want practical examples and cases studies and the opportunity to connect with and talk to others with similar interests. We have developed a social networked site (Cloudworks) to enable educators to share and discuss learning and teaching ideas. The site is now attracting worldwide interest and use with over 60,000 unique visits from 163 countries.

DEVELOPING A LEARNING SYSTEMS ROADMAP

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At the Open University UK (OU) the Learning and Teaching Strategy makes clear the institution's intention to move increasing amounts of educational content and activity online. Underpinning this approach is a complex range of systems, some recently deployed, others legacy in nature and sometimes ill-suited to current demands. The mix includes commercial systems, others built in-house, open source software and, increasingly, externally-hosted and cloud-based services. Almost all of these systems are under constant and rapid development. New software is continually being deployed for students and staff and this is likely to remain the case indefinitely. Staying on top of the rapid new developments is an increasingly complex task, and the practices and expectations of many users are evolving quickly, with the proliferation of online shopping, banking, domestic services management, digital TV and radio, and high quality gaming experiences becoming widespread.

Decommitting from legacy systems requires change management and often complex scheduling. Business ownership has traditionally been distributed, meaning that no individual or group understood the full picture or had the authority to define the way forward for the systems as a whole. Decisions over changes to the software range from a minor enhancement made at the initiative of a single developer to the deployment of a new system affecting many thousands of users. This can involve a complex consultative process with multiple individuals and groups.

It thus became imperative to develop a roadmap for the OU's learning systems which would be understood and agreed to by multiple stakeholders. The roadmap defines meaningful measures for monitoring and assessing the University's evolving elearning provision and usage. It is designed to act as a framework for gathering, prioritising and approving software purchases and developments. Projects and policies relating to the uptake and use of the systems now can be aligned to the roadmap which is intended to be live and evolving, providing a vision for intended developments over a three year period but allowing for rapid responses to new institutional strategy and innovations in learning technology.

At the heart of the OU's learning systems is a virtual learning environment based on the open source system, Moodle. With the University's recent adoption of Google Apps for Education a key architectural change is in motion: the move from centrally-hosted to externally-hosted or cloud-based educational systems (Sclater, 2010). The learner's environment is becoming a kind of portal with multiple tools and content made available by both the University and other providers. Weller (2007) claims that at this stage "VLE" ceases to become a convenient term or concept.

The roadmap aims to provide a framework for:

- Aligning developments to the University's vision
- Mapping and documenting existing OU learning systems
- Reviewing and enhancing the underlying technical architecture
- Gathering intelligence on learning systems elsewhere
- Gathering requirements for new systems and functionality
- Prioritising systems developments and procurements
- Developing appropriate policies and procedures
- Communicating developments and procurements

ONLINE LEARNING PRESENCE

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Theoretical Framework

The Community of Inquiry (CoI) framework conceptualizes online knowledge building as a result of collaborative work among members in learning communities characterized by instructional orchestration appropriate to the online environments (teaching presence) and a supportive and collaborative online setting (social presence). The teaching presence construct outlines task sets, for example – organization, design, discourse facilitation, and direct instruction (Anderson, Rourke, Garrison, & Archer, 2001) and articulates the specific behaviours likely to result in a productive community of inquiry (e.g. Shea, Li, Swan, Pickett, 2005). Social presence highlights online discourse that promotes positive affect, interaction, and cohesion (Rourke, Anderson,Garrison, & Archer, 2001). The model also references cognitive presence, a multivariate measure of significant learning that results from the cyclical process of practical inquiry (Garrison, Anderson, Archer, 2001) within a community of learners.

We note that research in this area has grown out of inquiry into computer conferencing and has thus focused heavily on examination of threaded discussions within courses (Anderson, Rourke, Garrison, & Archer, 2001). We believe that the research and indeed the CoI model itself are limited in light of these methods. We propose that progress can be made in the development of the framework by extending research into other areas of online courses including communicative processes outside of discussions and through analysis of learning artefacts directly related to discussions. Utilizing quantitative content analysis Shea et al (in press) revealed that a majority of the instructional effort reflected in the teaching presence construct occurred outside of threaded discussions and that much of the discourse of students in the two complete online courses they analyzed could not be reliably coded utilizing the three theoretical constructs of teaching presence, social presence, and cognitive presence. However researchers detected trends in this discourse suggesting that students were consciously collaborating to accomplish instructional goals that had been provided by the course professor. In the process of these negotiations patterns of strategic behaviour in which students articulated and assessed the processes of their own learning were revealed. In attempting to understand this "meta-cognitive" online learner discourse we referred to the literature on self regulated learning (e.g. Zimmerman, 1988, 1990) and concluded the following.

Strategic online students engage in discourse suggesting self-regulation of online behaviour including effective control of temporal, spatial, technological, and human resources. We found evidence that students monitor and regulate their time management, their study environment (e.g. the place in which they participate in the online course), technologies used, and online interactions with peers and faculty members to help them. Learner self-regulation of motivation and affect involved identifying and addressing motivational beliefs such as self-efficacy and goal orientation, to adapt to the demands of an online course. Successful online students regulate motivation, emotions and affect (such as anxiety) in ways that impact their learning. Strategic self-regulation of cognition in online environments involves the control of various cognitive strategies for learning, such as the use of deep processing strategies that result in better learning and performance.

Learning Presence

We conjecture that differences between traditional environments and online environments make online learner presence (effective online self regulation) a critical component of success of online students and, in line with research on learner self regulation that these behaviours, skills, and dispositions can be consciously developed by students new to the online environment. We further propose that teaching presence be construed to include a responsibility to assist learners to better understand learning presence. We believe that a more complete articulation of the behavioural, motivational, affective, and meta-cognitive strategies employed by effective online students will position researchers, faculty, and instructional designers to better understand conditions under which online education results in superior learning outcomes relative to classroom environments (e.g. Means et. al., 2009) and thus to continue to enhance and improve online education. We therefore conclude that online learner presence represents a potential conceptual advancement in the study of technology-mediated teaching and learning, one that hold promise in explaining better knowledge construction in online environments.

THE CANDY STORE APPROACH

Gunnar-Johan Schei, Inger Carin Grøndal, Susanne Kjekshus Koch, University of Oslo, Norway

We have often seen presentations on how to use an LMS, of educational uses of wikis and podcasting, and recently the occasional "teaching with Twitter". The theme may be described as: This tool offers pedagogical salvation. The underlying assumption is that there is one piece of candy that tastes better than the rest. But one size does not fit all. Teachers need to make sound decisions on which tool to apply to varying pedagogical challenges and they need to do so without having the knowledge about all sorts of candy.

Furthermore, a lot of the cases presented at conferences and in journals deal with pedagogical change brought about by innovators and early adopters. But what happens when the majority of regular educators start using digital tools in their teaching activities? To return to our candy store metaphor, the problem seems to be that regular teachers are not familiar with all the different sorts of candy, and they need someone to guide them through the candy store, or rather to discuss what others prefer, and why.

Our solution to this is really rather simple. The majority adopters of digital tools have access to digital communities of practice, already established by the early adopters, where they can learn from the experiences of other educators. When they engage in didactical deliberation, they use their digital communities of practice for reference.

This works rather well in K12 education, but not so well in higher education. The problem seems to be that there is little or no collaboration on didactical issues; teaching is "privatized". But this is paradoxical since there is widespread collaboration within scientific research projects. Educators in higher education are also researchers and they use their peers for reference in the hardware store, but not in the candy store.

The challenge is on us, as pedagogical educators, to inspire them to apply collaborative processes to their didactical deliberation in the similar manner as in their research projects.

ONLINE INFORMAL SCIENCE EDUCATION – FROM "MATH-BY-MAIL" TO "ASK THE EXPERT"

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Informal science education over the web is a formidable challenge for any organization. In order to have an impact on the learner through internet-based learning, you have to compete with a large number of factors that do not usually hinder learning in real non-virtual environments, even in informal environments such as science centres and museums. These factors include among others, an extremely short attention span of the learner, no intrinsic knowledge about the learner one is trying to educate, competition from other websites that may or may not offer credible, relevant information and many other factors.

If we want to address these issues sincerely, a methodology of informal science "virtual" education must be developed. Such a methodology has indeed been developed and successfully implemented in the informal science education distant learning technologies of the Davidson Institute of Science Education, the education wing of the Weizmann Institute of Science.

The methodology addresses a wide variety of distant learning activities which can be categorized according to the level of involvement of the learner in the activity, which itself is widely dependent on the web technology used, specifically the amount of Web 2.0 capability in the activity.

We present our methodology along with an analysis of it with respect to the different online educational activities in informal science: online science clubs, online quizzes and competitions, question and answer forums, online science news articles, suggested "do it at home" experiments and a multimedia library. Results from monitoring surfer traffic that strongly suggest adherence to a number of basic "guidelines" will also be presented. Finally, when one discusses methodology with respect to advanced technologies, one must take into account the increasing speed of technological progress and its effect on the methodology. The **dynamical** aspects of e-learning methodology will also be addressed in the presentation.

CAN 'E-LEARNING INSTRUCTORS' STIMULATE 'ACTIVE INSTRUCTION'?

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Abstract

Instruction in higher education institutions has developed significantly over the past two decades, influenced by two trends: promotion of active instruction methods and integration of web technology in e-Learning. Many studies testify to active instruction methods' success in improving students' involvement during courses and final examinations. Nevertheless, internationally, most instructors maintain traditional teaching methods. A research tool developed on the basis of 'active instructors' experience and interviews exposed transitions they underwent. Following a review of the literature and examination of 'active instructors' attitudes, content analysis identified six key areas that may characterize the lecturer's tendency to adopt typical active teaching methods. A questionnaire, examined attitudes of 135 instructors in three Israeli higher education institutions and 56 European distance and e-learning instructors concerning active instruction. Their attitudes were compared with the attitudes of 'active instructors' who, for the past three years, have taught in active instruction environments. In all six identified instruction areas, a significant difference was found between attitudes of 'active instructors' and their colleagues. Identification of these differences expands the theoretical knowledge corpus concerning instructors' attitudes toward active teaching, presenting a new tool to characterize these attitudes.

Introduction

Over the past decade, researchers and instructors in Israel and other states have attempted to promote active learning in academic courses. Introducing innovation in teaching by the adoption of active teaching approaches involves a long and complex process. In many fields of teaching it is difficult to introduce innovations even when this would clearly be advantageous and beneficial. The development of e-learning method encourages students to be active learners, but how can the e-instructors manage the courses? Institutions of higher education also engage with this dilemma. These institutions strive to conform to a packed and demanding curriculum that leaves little time for students to develop a profound understanding of the study subjects. Studies examining innovative teaching methods that involve the students in conducting lectures in basic courses in sciences, engineering, and technology suggest that these methods result in enhanced achievements among the students, a better understanding of the studied material, involvement, and responsibility for the learning process.

Summary and Conclusions

This study reveals minor differences between e-Learning and face-to-face (FTF) instructors in their tendency toward active learning. We assumed that the e-Instructors would have a stronger tendency toward active leaning for the following reasons:

- Preparation for e-Learning – in many institutions, the procedure preparing a teacher to become an e-Learning instructor, includes learning pedagogical approaches to students' activities and how the instructor should manage these activities;
- Activating e-Learners – the fact that e-instructors do not meet their students FTF but manage them virtually, on-line, forces the e-Instructors to communicate with the e-Learners by activating them.

However, the results of our study did not reveal any clear advantage for e-Instructors' tendency to adopt active learning. These results could be explained by the instructors' tendency of to maintain their traditional FTF teaching style even when they begin to teach virtual classes. The small sample of e-Instructors questioned in this study simply indicated a tendency to maintain the traditional teaching style. Further study is necessary to clarify this tendency.

FROM THE LEARNING WORK TO THE LEARNING ADVENTURE

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Nian-Shing Chen, National Sun Yat-sen University, Taiwan

This position paper aims to explore the way learning technology could shape future Higher Education institutions, i.e. Universities. To effectively support learners in number of life-long learning trajectories, Universities may be asked to rethink their didactic services organization. This process not only introduces important considerations on the pedagogical and the instructional dimensions, but also offers stimulus for considerable reflections at a managerial and organizational level. In such a context, many are the issues involved in learning by means of technology. In particular, new technologies, namely Web 2.0 and Cloud Computing (meant as a set of Web Services made available by different institutions and used by all the participants) seem to be promising to provide the required levels of flexibility.

From a pedagogical point of view, the concepts of Learning Work (LW) and Learning Adventure (LA) are introduced. LW is the student activity involved by the attendance to a structured curriculum and directed to the attainment of a degree, whilst LA is the student activity aimed to satisfy a personal desire of acquiring knowledge and/or aimed at providing proficiency in some competence domain. The main assumption is that learning technology would assist in promoting the diffusion of the LA approach and in enhancing it, when already practised. To improve the efficiency of the LW and, even more, to transform it in a LA for the interested people is an objective that, if attained, would add value to learning and would make easier to build up the Knowledge Society. The added value to learning will be perceivable both at the student site (self evident) and at the institution site.

On the basis of preliminary experiences carried out by the authors, the paper introduces some of the issues related to teachers' role and efficacy in local institutional settings, to knowledge sharing in adult learning aimed at excellence and competence, to knowledge pooling in excellence and research oriented learning activities asking for an international, global, learning community. In particular, an experience of team teaching and immersive telelaboratory for blended learning in local settings, some hints on leveraging different specialist competences by means of synchronous cyber classrooms in global settings, and a discussion of the adoption of Web 2.0 technologies to create Personal Knowledge Spaces and to share them in a supervised way in local and global settings are presented.

The experiences reported in the paper are also a cue to reflect that such a use of technology would have a strong impact on the Universities organization involving major managerial issues related to the role itself of the Universities. When promoting a transition from LW to LA, Higher Education institutions would need to guarantee high level of trust by matching local characters and global visibility, to be committed into global problems solution, to be networked, and to manage intercultural relationships in a context of excellence. This would imply to change their mission from universalism as a cultural mission to glo-calism as a constant research and education practice. Technology would help in promoting such changes.

SYNERGIES: HOW ONLINE TEACHING CAN IMPROVE QUALITY OF FACE-TO-FACE TEACHING

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While it may sometimes be believed that online-teaching should only be applied when added value to learning can be promised, the focus of this article is to point into a different direction: it will discuss how online-teaching can inspire higher quality in f2f teaching and vice versa.

This question will be addressed in this article by comparing the design and design process of two university seminars in teacher training on the same topic (learning software), but one being offered as an online seminar and one as an f2f seminar. Despite the identical content of the seminars their didactical requirements and possibilities differed. Ideas for improvement of teaching were generated by comparing seminar designs. These lead to differences in performing learning processes.

Screencasts as a form of student presentation in F2F seminars

The necessity to find new methods for presentations in online seminars (due to the dislodgement of students) lead to the invention of digital screencast presentations. Its success inspired to use such screencast implementations also in f2f seminars. This proved to be great success in many unforeseen ways:

- It became evident that most students had prepared a screenplay – often written down – of what part of the learning software they wanted to show and what they wanted to say. Often they would record a screencast, watch it, be dissatisfied with the result, remember what they had forgotten, and re-record it, up to six times as one group told us. When asked why they did that, they reported that the technical aspects of recording had not been an issue. It was their ambition to meet their own high standards for presentation that lead to several recordings and improvements.

- Time on task while preparing the presentation was higher than in the traditional f2f presentation while time on task in performing the presentation was lower.

- These procedures resulted in an extremely effective use of learning time, both at home and in class, resulting in presentations of mostly high quality, interested and concentrated audience and interesting following discussion about the software and its evaluation.

This has several implications: whereas traditional class-room presentations had hardly ever been practised beforehand by my students and is mostly performed spontaneously (they usually prepared the presentation, slides, literature, etc., but they did not come together as a group and perform the presentation together six times), the digital presentation motivated them to do their presentation over and over again. The learning effect can be estimated to be high:

- Preparing a well thought-through screenplay, reducing spontaneous decision during presentation.

- Choosing very consciously how to present the learning software and choosing specific parts, reducing wasted time in showing useless scenes.

- Record the screencast and watch it: They watched their own presentation critically and improved it. This can be understood as some sort of self-assessment of one's own work.

This observation shows how a new medium – screencasts – can question accepted customs (never practising a presentation, students' tolerance of sloppy presentations) and further new learning procedures. As the medium allows them to firstly plan, assess, and practise their presentation and secondly store their presentation – for everyone visible anytime – it inspires and motivates students to produce a good presentation and spend much more time on it.

EFFECTIVE USE OF MEDIA EDUCATION IN THE DEVELOPMENT OF CRITICAL THINKING

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Critical thinking is one of the most important skills in an open and democratic society. It is an active innovative teaching method, which promotes communication skills, indicates an individual's ability to conceive, understand and estimate knowledge as well as reverse and recreate the information received.

Traditionally in schools memorization of knowledge is considered. Questions asked during the lessons require accurate, factual knowledge-based replies. But if students are not able to summarize, analyze, such information is practically useless and is not applicable. In order to integrate knowledge into a learning process, a meaningful dialogue between a student and a teacher is necessary. Various techniques and questions asked can successfully encourage pupils to examine, think, discuss, transform, imagine, and create.

Considering a large and chaotic flow of information, which can be often misleading if there is an absence of critical analysis skills, the abundant use of technology in everyday life of young people and teachers who encourage students to create and develop their literacy skills and critical thinking, meet serious problems and face challenges. Teachers try to motivate students to develop their literacy, critical thinking skills and want to protect them from a passive observer's role. Teachers feel a lack of potency to demonstrate for students the importance of reading, writing and critical thinking development in the information society, as well as possibilities to adapt and apply the latest technologies for learning and self-learning.

Facing these challenges and realities, a two-year international project "OnAir: Effective use of media education for school education" (OnAir) was initiated and launched under Lifelong Learning Programme's sub-programme Comenius in 2008. The project seeks to provide a solution to the above defined problem by changing the current approach to the media, including schools students and teachers and to demonstrate that the new media and information communications (ICT) cannot cause threat and may serve as a useful tool for developing students' literacy skills, critical thinking, and perception.

The aim of the article is to investigate students' critical thinking skills and improve them, applying the principles of critical thinking in the teaching/learning process, using a designed set of activities and tools, which is suggested to exercise in the classroom. Educational path and tools described in the article were created as one of the results of OnAir project also some presented techniques were devised, created, tested and suggested in Kaunas University of Technology in the Faculty of Humanities.

Educational path, suggested by Media Monitoring Agency, is called "Looking in the mirror of advertisements" and it represents a critical approach to advertisements, from collecting to study them and understand them as a type of media messages. It aims at developing the critical thinking and the rational behaviour of students as advertisements' consumers. This unit is motivated by the presence and influence of advertisements in the life of different communities and especially in the life of students as members of community.

A set of tools for developing critical thinking skills in language classroom is suggested by lecturers from the Faculty of Humanities from Kaunas University of Technology. The techniques developed are: brainstorming activities; group work with a particular emphasis on critical thinking, applied in debates, discussions, and the defence of one's point of view; evaluation which involves students in the assessment process when making presentations, and enables students to evaluate their group mates with responsibility and objectivity and other additional teaching handouts with tables, charts, diagrams, evaluation forms, requiring critical thinking, originality and creativity. The article indicates some of the possible tasks, used for the application and mastering of critical thinking methodology in the English language classroom.

Therefore, while developing OnAir project, as one of the results, we seek to develop a set of tools, used as a means of methodology for better critical thinking acquisition, which could be used in different subjects and make students interested in the subject they study; apply certain activities and observe the reaction of students.

SHARING EXPERIENCES FROM THE MEDEA AWARDS

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Introduction

In recent years there has been remarkable interest in the creation and use of digital video and audio in education, boosted by the increasing impact of multimedia and video based web sites and applications on the Internet and mobile devices. The pedagogical vision is clear: it is only when video and audio are routine components of education and online learning that we will have an educational environment that reflects the media-rich world in which our learners now live.

However for many practitioners, media-use is a relatively new practice and there is a remarkable lack of examples of good usage of media available. Getting the balance right between pedagogy and media production can be challenging and despite the vast arrays of affordable hardware and software now available, many learning professionals simply lack the skills and imagination to use media in a meaningful way to support learning. It is against this background that the MEDEA Awards were established.

Objectives

The aim of the MEDEA Awards is to encourage innovation and good practice in the use of media (audio, video, graphics and animation) in education. The Awards also recognise and promote excellence in the production and pedagogical design of media-rich learning resources.

Part of what MEDEA does is to help define what constitutes excellence in the use of media to support learning and all entries are judged according to the following categories:

- *Pedagogical quality*: This includes the didactical quality, the quality of the expected learning: is the learning objective clear and well addressed, is there enough learning content or too little or too much, is the communication of good quality, for example, is there a good narrative or flow that keeps the learner focused and attentive; is it clear that this product or service will result in good learning; is there some form of learning effectiveness assessment embedded?

- *Use of media*: For example: are images, graphics, sound, and animation used appropriately and in an exemplary fashion? Is the choice and/or selection of the media as well as the design and the production quality at the right level for the learning objective, for the target audience and within the context of use?

- *Aesthetic quality*: Is it attractive? Is the style and design consistent and appropriate for the age and nature of the targeted learners? Is this entry appealing and pleasing? Is it a pleasant experience?

- *Technical quality*: Is everything working as expected, is technical assistance required? Is the application working smoothly? How is the technical quality of the images and sound, of text and images? For example: is the sound comprehensible, are the images clear and sharp, is the editing smooth...?

- *Usability:* For example: is this easy to use? Are appropriate guidelines, instructions or manuals provided or when not, can the learner or teacher can use it intuitively, without need for introductions, manuals or guidelines? Are there provisions for support (guidelines, helpdesk, FAQs…) so that the user does not have problems learning with this material?

Presentation

In the proposed presentation we will provide background information to this awards scheme and show several of the winning entries. We will also identify the types of media in popular use in the learning context, inviting the audience to contribute with what they consider makes for effective educational media. The presentation will wind up with a lively discussion identifying and addressing some of the challenges faced by those striving for excellence in this sector.

WE HAVE THE VISION & THE KNOW-HOW. WHAT CAN BE THE PROBLEM? A PROVISIONAL CATALOGUE OF CHALLENGES FOR E-LEARNING IN EUROPEAN BACHELOR COURSES DERIVED FROM THE EXPERIENCE OF THE SW-VIRCAMP PROJECT[1,2]

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Remmelt Veenkamp, InHolland University of Applied Sciences, The Netherlands
Robert Sanders, Swansea University, Wales, United Kingdom

This paper presents a provisional catalogue of challenges that European e-learning initiatives need to address when developing shared/tuned educative programmes which are intended to be integrated in their normal Bachelor curricula. These challenges are not related to the know-how of the participants, or disagreements about course objectives, pedagogical methods and contents.

The catalogue is derived from the experience of the "Social Work Virtual Campus" project (SW-VirCamp, hereafter), an Erasmus Virtual Campuses project, one of whose main objectives is the implementation of an International Specialization in Social Work at the Bachelor (BA) level in the Social Work curriculum of the 12 higher educational institutions (HEI) belonging to the project.

After presenting a brief description of the SW-VirCamp project, a summary of its vision, know-how and technological characteristics, the elements of the referred catalogue are presented (along with examples) and finally the answers given to an online questionnaire and a series of phone and mail interviews by the representatives of the 12 partners involved in the project (Astray, Veenkamp and Larsen, 2009).

A VIRTUAL CAMPUS FOR DIGITAL STUDENTS – PARADIGMS AND GUIDELINES

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This paper describes the piloting of a collaborative project between 6 universities from European Union (Romania, Italy, Finland, Hungary, Lithuania and UK) to develop a common online learning environment enhanced with web 2.0 tools for supporting the online international co-operation at academic level: ViCaDiS – Virtual Campus for Digital Students. The project is based on the article of faith that underpins our work that technology makes it possible to design learning situations that actively engage and guide learners while allowing them to choose their style of learning and organize their knowledge outcomes. Digital students are young adults who have grown up with digital technologies integrated as an everyday feature of their lives.

The main scope of ViCaDiS is to provide an accessible and attractive environment for all students within the Member States, using already existing tools enhanced with new tools wanted by the new generation of students. By providing students the tools which they use anyway extensively outside the institutional framework of learning (wiki, blogs, forums, IM, podcasting, RSS) ViCaDiS supports the learning attractiveness of the university curricula, and we suppose will improve the quality of the learning process by encouraging the exchange of information/knowledge between students from different universities, and will reduce university drop-out or student de-motivation for learning. It also produces an instructional or pedagogical shift inside the universities eLearning moving the focus from the education materials and technology to the user- student, to user generated content.

The ViCaDiS core structure is around the 'groups' which identifies the objects, projects and tasks in: language (EN, RO, IT, HU, LT, FI), university (each university involved in the project and a user can belong to one university group) course (part of the piloting: web 2.0 technologies, multimedia technologies, Technical English, e-learning, practical placement), subject (ICT, Web 2.0, graphics, research, social media & nonprofits), interests (countries, cities, Erasmus mobilities, studying in EU), life (sport, financial issues, travel).

We studied the impact of the various features on the experience of the new student generation. The environment was used in normal University course (Technical English and Multimedia Technologies) and during the Technical Placement in the Industry by groups of both "digital" and "non-digital" students. Another use for informal learning was to gain information and share the experiences of student mobilities between the partner universities in the EU ERASMUS programme. The usage made of the environment was measured, and qualitative evaluation (interviews and a questionnaire using the ZEF methodology) were carried out to establish attitudes and preferences.

In ViCaDIS piloting wiki, blogs and chat/forums were used extensively for fulfilling the given academic task. The Wiki, OU Blog and Chat/Forums were seen as the most important ViCaDiS features for users, as resulted from the post-piloting analysis. They were also included in pedagogical settings of the piloting cases. It clearly resulted that students preferred blogs and chats for communicating their thoughts, reflections or working in groups for the same tasks. According to these answers ViCaDiS was considered particularly good at facilitating international communication between students, which was one of the main goals of the project. In some piloting cases students worked internationally in fulfilling the same tasks (the Multimedia Technologies and Technical English). This allowed them to get to know each other better and to interact in ways which weren't the usual in their universities settings. Only some of the piloting students used ViCaDiS through a mobile interface. Most of the piloting students were familiar with social media tools, and they considered them appropriate for interaction in an educational environment. The students also appreciated the high educational value of online video connection with peers or tutors during a course. It is significant that the students placed great value in tools that enabled communication not just between themselves but also with the course tutors. This project entrusted confidence into the students' online abilities and skills especially for using them in an international context.

The results indicate that an eLearning environment that has the described tools and involves student control leads to greater engagement in the learning process and a higher level of satisfaction of the group which we identified as digital students. Inter-university cooperation requires to agree and to build on the very same paradigms, settings, abilities and facilities.

The environment described here is named ViCaDiS – Virtual Campus for Digital Students and is supported by the EU Lifelong Learning Erasmus Virtual Campus Programme – www.vicadis.net.

"WILL YOU PLACE IT THERE?" DEVELOPMENT OF DISTANCE LEARNING AND USE OF LEARNING MANAGEMENT SYSTEMS AT THE UPPER SECONDARY LEVEL

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Introduction

For the past years, distance education (DE), online and blended learning has been developing fast at the upper secondary level in Iceland as well as the use of learning management systems (LMS) regardless of whether a DE program exists within a school. In this paper, we report results from a long term study, which is an attempt to map what is happening in the schools from perspectives of different groups.

Administrators in all high schools/junior colleges in Iceland were contacted in the fall of 2005, 2006, and 2009. They were interviewed regarding DE, online, blended learning, and uses of LMS's in their schools. In addition, 25 teachers and 53 students were interviewed from six schools in the spring of 2007. The main focus of this paper is on the results from the administrators and teachers. Special focus will also be given to the changes that have occurred from 2006 to 2009; in the latter half of this period the financial crash hit Iceland and many other countries around the world. In the paper we will address two main questions:

- How do teachers regard DE, online and blended learning and/or the use of LMS for teaching and learning?
- What are the main changes in the schools concerning DE, online and blended learning and the use of LMS's at the upper secondary level in Iceland from 2006 to 2009?

Results

Most teachers were positive towards DE. Many teachers felt that DE offered increased opportunities for small schools, increased equality in education and flexibility. Many reported that DE students were interested in learning. They also mentioned that students learned new practices, which they could use in the future at their work. DE would entail increased freedom for teachers and could be labour saving in the long run. Participants mentioned some drawbacks including increased workload and teachers' isolation. Some participants complained that students were not sufficiently active in learning. They also mentioned insufficient communication between teachers and students. There appeared to be a greater risk that students cheated, there was increased dropout and some students were not sufficiently computer literate. Some participants mentioned that more learning demands were made on students who were studying at a distance compared to students in regular classes. Many thought that studying in DE programs required self-control and maturity and were not always suitable for younger learners.

Schools are starting to rely on LMS's and there is increased use of them in all schools among learners, teachers and administrators. More and more information is made available in the LMS's as the quote in the title indicates (from a teacher reporting that "regular" students often asked: "Is this in the online learning environment, will you place it there?" and that now "everything is put in the online learning environment.") A clear trend towards the use of open source software is evident probably to a large extent as a result of the financial crash. In those schools that have offered DE or blended programs, administrators are worried about the financial cuts concerning DE hitting the schools.

Conclusions

A vision and a DE policy at the government level is needed and it might be good to explore the option of setting up one school entirely online (at the upper secondary and even joined with the tertiary level) for the whole country. An evaluation is planned by the government to look at quality of DE programs compared to regular ones. Even if there have been some opportunities for professional development in relation to teaching and learning at a distance, a teacher education diploma/license should probably be available for DE and/or online teaching. Current teacher license programs in the country for teaching at the upper secondary level do not include mandatory courses or experiences teaching online/at a distance.

CONSIDERATIONS ABOUT THE INTRODUCTION OF ICT IN EDUCATION: HOW CAN TEACHERS OVERCOME THIS CHALLENGE?

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The introduction of Information and Communication Technologies (ICT) in education poses a challenge to teachers and their teaching practices. As ICT can serve as an instrument to teach and interact with students, this raises some key issues regarding the way that technology can intervene in the pedagogical process. These are linked to problems regarding terminology, technological development, the adoption of new tools, and the teachers' lack of confidence in using new technologies.

Although ICT are being introduced in education in both developed and developing countries, there has been little change in education with regard to teachers' needs, owing to the complexity of the educational system and rapid changes in technology. Broadly speaking, ICT are being used both in formal and informal education. However, informal learning tools and techniques can be combined with a formal approach and the boundaries between these two fields tend to be blurred. Moreover, formal and informal education can be regarded as a continuum as long as it is taken into account that in formal education people are being educated for their professional lives, and thus, their education can be viewed as lifelong learning.

ICT are used for managing, designing and teaching courses and modules. To support these activities, especially if they are undertaken in the school environment, users have to rely on technical skills, and a degree of organization to ensure that the programmes are run efficiently. In implementing ICT systems at an organisational level, those responsible should give priority to the following: defining what kind of technology can cater for the needs of the students; setting up software systems that are adapted to the needs of the institution; the installation and maintenance of a technological platform; the management of courses and groups of students, resources and logistics; and, teacher-training on how to set up, design and run courses. Thus, this undertaking comprises technical, organisational and pedagogical dimensions, which are interrelated with interfaces and overlaps. It also means that people with different areas of responsibility should be involved in the analysis, design, development, implementation and evaluation of the ICT educational project. Thus, communication and team work are essential to ensure these initiatives are implemented effectively.

As there is a risk that the use of ICT may disrupt the teachers' work in designing and teaching learning activities, there are some essential issues that should be taken into account when introducing technology to the learning environment: teachers must master the skills needed to use the technology; they must have the ability to know how to use it for certain subject-areas, purposes and audiences; and they must learn to become engaged in the task of evaluating their initiatives and tackling any problems that arise. It is likely that teachers would be more willing to incorporate ICT in their teaching methods if they were engaged in defining how the projects involving technology could be implemented for educational purposes. However, as they are usually unfamiliar with these new technologies, they may find it difficult to adopt them. They must also learn how to apply them to their classroom and/or off-campus learning activities, either as an extension of their studies or for assignments; this implies that they must adapt and/or change their pedagogical practices.

Suitable technological tools should be chosen for certain tasks and audience needs, including the social characteristics of the learning environment. Guidance on how to choose the most appropriate methods and tools can be obtained by adopting a theoretical approach, and examining the literature available. Teachers can also rely on good practices such as those found in communities of practice where they can encounter collaborative work among colleagues, who are experimenting with new tools in their teaching methods. They can share these practices and discuss them in the light of the theoretical approach, and thus combine theory and practice.

NETWORKED LEARNING IN A NETWORKED WORLD

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In today's world, many actual drivers (e.g. Information overload, rapid information cycles, increasing competence demand) exist, which have led to the announcement of a new world of learning, lately. Many reports and national surveys demand therefore that educational concepts have to take these new learning contexts, including the internet, continuous new technologies and increasing social networking, into account, and deal with them productively in order to achieve greater student engagement. Although this debate is not an entirely new one, it gains new relevance as the discrepancy between formal learning in institutional settings and open learning concepts becomes more and more apparent, due to the increasing decentralization through web 2.0 tools as well as increasing connectedness.

Those changes in the learning context (e.g. through technological changes like web 2.0 developments or political changes like the Bologna reform) as well as the availability of new tools are often accepted as obvious and given. However, the very nature of this change is often misinterpreted as the postulation for new educational concepts often leads to an uncritical rejection of existing concepts and theories although the existent learning theories seem still to be able to explain (at least) parts of "learning": Phrased differently, technological inventions cause not automatically innovative pedagogy and proven approaches exclude not automatically technological inventions. Consolidated concepts can though help to bring proven approaches and new learning contexts together. Through this, learning scenarios can be created, which empower self-directed, social interacting and competence enhancing learning even more. One possibility for such a consolidated concept is offered by social networking, more precisely Networked Learning since Networked Learning integrates both the new movements and is based on proven learning theory as it consists of building blocks from:

- Connectivism, highlighting the relevance of connections for learning,
- Social Network Analysis, pointing out the different types of connections and their implications for learning, and
- Collaborative Learning Theory, based on Constructivism.

With these approaches the learning process within Networked Learning can be characterized as follows. Networked Learning:

- is an active connection and association process (≈ active process),
- contains a peer reflection and validation process (≈ constructive process),
- is an intrinsic motivated, interpersonal process (≈ emotional process),
- consists of selecting and evaluating of connections and information (≈ self-guided process),
- is a networking, interaction process (≈ social process) and
- demands oriented networking, in informal settings (≈ situative process).

Through this consolidated concept existent approaches and new interactive learning contexts are thus brought together. Accordingly, existent learning theories can explain today's learning scenarios to a certain extent by pointing out dimensions (like collaboration, social learning, networks etc.), which help us to analyze learning contexts. These dimensions can be adapted to new learning contexts with assistance of new approaches. Summed up, Networked Learning as a consolidated concept incorporates both new approaches and elaborated theory. It is thus an effort to transfer existent educational research to new learning contexts to serve the demand for adequate and "modern" learning scenarios.

MEDIA – ONLINE AND TEXTBOOK AS MARKETING TOOLS IN FULFILLING STUDENTS′ NEEDS

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This paper investigates the engineering students' world, special needs and attitudes – during first year academic studies – from a marketing viewpoint. It examines students' attitudes regarding the media, textbook reading and use of Internet sites as a supportive environment for basic courses. 134 college engineering students and 94 university engineering students participated in a research related to: reading habits before and during academic studies, preferred language for textbooks (English or Hebrew), reading skills and use of on-line learning materials. Findings indicated similar reading habits for college and university students, except for use of on-line learning media and a significant correlation between pre-academic study reading habits and reading during academic studies. More than 90% of the students clearly prefer textbooks written in their mother tongue. The students rarely used textbooks to deepen understanding of course subjects, but thought they were very important for success in the courses. They were primarily assisted by textbooks and online sites for exercise solution. University students used on-line learning materials more often in comparison with the college students.

The research focused on the market segment of engineering students, at the inception of their academic studies in the State of Israel. This is a clear and defined target market that copes with academic tasks by using textbooks, written in English, which is not the students' mother tongue. The research revealed the difficulties, needs, desires, preferences and attitudes of this market segment. The authors assume that engineering students' needs, in the State of Israel, are not substantially different from the needs of other engineering students beginning their academic studies in other world states, whose native language is not English. Similar studies are needed in these states and the authors intend to initiate a comparative study in other states to verify this assumption. It is not simple to provide the necessary response to the market segment's need on which this research focused. The discovery of the fact that at the beginning of their studies few of the engineering students are assisted by textbooks in their own language, and consequently even less so by textbooks in English, is to a certain extent, an open secret. The authors estimate that response can be designed for this need through a synthesis of different strategies.

A student who begins academic studies, in general – and particularly an engineering student – is required to undergo changes in his transition to the academic world. Among other things, the student is required to read textbooks in a systematic way, since they constitute the theoretical fundament for basic science courses (Hoyle, 2005). This study identified a correlation between the students' reading habits in general and their tendency to read textbooks during their studies. On the other hand, the research indicates a phenomenon of students who are rarely assisted by textbooks. Moreover, a gap was found between university students who are greatly assisted by on-line sources, while only a small percentage of college students see on-line sources as a replacement for textbooks. Most of the web sites are written in English so that reading them constitutes a difficulty for most of the studied students. It seems that the university students were less deterred from learning that relied on a foreign language compared to their college colleagues, as it was found that university students used online sources more frequently.

This study does not leave any doubt regarding the preferred language for students' studies, without any distinction between university and college students. More than 90% of the questioned students preferred reading books and learning matter in Hebrew. Most of the students claimed that they have a command of English in three areas: speech, reading and writing. Their attitudes with regard to their mastery of the English language are influenced by their reasonable to high functioning in spoken English. However, reading a chapter in an English textbook requires different – more complex – coping skills, and the lecturers' assumption that students' are helped by English textbooks is not realistic for many students.

LEARNING STYLES: WHICH TYPE OF STUDENT IS MORE SUCCESSFUL IN WHICH MODALITY?

Leon Cygman, Mount Royal University, Canada

As the e-learning population grows, students could find themselves enrolled in distance education modalities that may not be conducive to their learning style. Learners who may be used to face-to-face classroom learning may have a difficult time adapting themselves and their learning style to the distance education environments. The purpose of this study was to determine whether a postsecondary e-learner's learning style was a factor in the success of distance education studies. The researcher designed a study using a quantitative, comparative, and correlational methodology, investigating the relationship between learners' success and learning styles. Success was operationally defined by learner's satisfaction with the course upon completion, as well as the grade obtained. The sample learners were categorized into three learning styles and there appeared to be no significant difference in outcomes among the learners. Students experienced the same level of academic success and satisfaction, regardless of their learning style. As learning style does not appear to be a factor in academic success or in satisfaction, this researcher's recommendation would be that learners of all types of learning styles be encouraged to enrol in distance education courses. Although some of these learners may find it difficult at the beginning of their first distance education experience, this researcher shows that they will be able to adapt to the materials, even when they are not directed to their personal learning style.

INTENTION, TRANSITION, RETENTION: EXAMINING SECONDARY SCHOOL DISTANCE E-LEARNERS′ PARTICIPATION IN TERTIARY EDUCATION

Dale Kirby, Dennis B. Sharpe, Memorial University of Newfoundland, Canada

The continuing expansion of distance e-learning courses in rural and isolated communities has been accompanied by questions from parents, teachers, and others about equity in outcomes for students who have no other option but to complete needed courses in a distance e-learning or on-line format.

While a great deal of research effort has been directed toward uncovering attributes and factors associated with youth transition to and successful progression through tertiary studies, few of these studies have considered the role of on-line course experience on student transitions to tertiary education. To address this area of deficit in distance e-learning research, our multi-year study was designed to investigate the influence of students' on-line course participation in secondary school on their subsequent transitions to and through tertiary education. This included three related studies which were carried out from 2007 to 2009.

The first study investigated the tertiary plans of on-line learners in their final year of secondary school while the second examined their progression to tertiary education following graduation. The third and final phase explored the retention rates of secondary school on-line learners who subsequently enrolled in a university program. In addition to pair-wise comparisons using chi-square tests of independence, logistic regression models were utilized in each of the three studies to assess the impact of on-line course participation, gender, and academic achievement on students' tertiary plans, program selections, and retention.

The results of the three studies indicated that secondary school students with academic challenges, enrolled in on-line courses or otherwise, are more likely to be disadvantaged in terms of planning to attend tertiary education, actually enrolling in a program, and maintaining their enrolment once they have registered. Overall, the findings lead to the conclusion that there is no "transition disadvantage" for secondary school on-line learners.

HIGHER EDUCATION STUDENTS UNDERSTANDINGS ABOUT THEMSELVES AS E-LEARNERS

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The overall aim of this paper was to identify what is needed from the academic organization to support student success. More specifically to examine how six students describe their experiences and their understandings of themselves as e-learners and how they experience their learning. The student's opinion on the implementation of the course in which they participated was another studied issue.

The first year students were studying their second semester on a part time, on-line, introduction course in Pedagogy, 30 credit points. The studies were carried out during two semesters with no physical meetings. The information and communication technology (ICT) tools were FirstClass and telephone. A well structured study guide was given to the students when the course started.

The study is an example of pedagogical research which used a qualitative interview method to uncover how six students in higher education understood their e-learning processes and what is needed to make e-learning efficient. Data was collected through telephone interviews which were done in May 2009. Each dialogue varied and lasted about 30 minutes. The students were asked to explain how they looked upon themselves as e-learners and how they understood e-learning in general and particularly the net based course they attended at the time of the interview. The interviews were taped and transcribed.

A general social-cultural theory was used as a framework for analysis. The aim of the analysis was to discover in what way it was possible to find similarities and differences in the students understanding of themselves as e-learners and their understandings of learning. To create the possibility of describing and analyzing the students understanding, a qualitative approach was chosen. In other words the aim was to understand and to explain patterns in the data. The interviews were read, reread, coded and analysed by two independent readers. Categories, patterns and units of meaning were found.

When the students looked at themselves as e-learners and their understanding of themselves as e-learners they mentioned their life situation as a common reason why choosing a net based course. Curiosity and a wish to get experiences of net based course were also mentioned as reasons for studying. Opinions concerning the study form were that e-learning had quite different demands on the students and the lecturers compared to studying on campus. All participants were highly motivated to start university studies and to develop knowledge. General points of view in the quotations were high expectations of study and learning. The e-learners understanding of learning were focused on artefacts for learning, communication, support and interaction. The experiences and knowledge about ICT as a pedagogic tool varied. One problem of getting started was the gap between earlier experiences of secondary studies to new demands at tertiary level. Other emphasized the need of being disciplined; to start immediately with the tasks. There were some obstacles to overcome for example to become familiar with the academic environment, insecurity in academic reading and writing, to manage ICT-tools and the time table. The conclusion from the named obstacles is that successful university studies need a clear focus on study planning and a first year student programme. The findings indicate that flexibility in time and room is essential to become successful as an e-learner.

At last, a reflection we want to point out for further discussion is the complexity in organizing successful net based studies. Awareness when planning and organizing net based higher education is needed in the whole organization, on different levels, from an individual to a structural level.

LEARNING IN DIGITAL: AN APPROACH TO DIGITAL LEARNERS IN THE UOC SCENARIO

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The idea that the generation born after 1982 is fundamentally different than previous generations has become so firmly entrenched, it is treated as a self-evident truth.

They are supposed to present some characteristics (e.g. multitasking, need of immediate feedback, preference of teamwork, experiential learning, ...). But can these characteristics be seen in our younger students?

We cannot be sure about existence of the so-called "Net generation" (Oblinger and Oblinger, 2005). As several reviews of the research have shown, few of these key claims about this generation are based on empirical evidence (Bullen et al, 2009; Selwyn, 2009).

The international research project, Digital Learners in Higher Education seeks to develop a more sophisticated and evidence-based understanding of how postsecondary learners in different institutional contexts and cultures think about technology and how they use it in their social and educational lives. This project will examine the issue in depth to gain an understanding of what the growing use of the new digital technologies means for teaching and learning in higher education.

The Digital Learners in Higher Education international is led by the British Columbia Institute of Technology and includes the University of Regina and Open University of Catalonia (UOC).

The research questions driving this study are:

- Do postsecondary students distinguish their social and educational use of ICTs?

- What impact does students' social use of ICTs have on postsecondary learning environments?

- What is the relationship between social and educational uses of ICTs in postsecondary education?

In this paper, we will explain the process of this research project as well as its application at the UOC. We the present the analysis of the first results of the survey of students taking an ICT competences' course, and compare the study and communication habits of net generation students (born since 1982) and students who were born before 1982.

One of the main aims of this paper is to prove there is not any significant difference in learning and ICT habits between UOC students considering their year of birth.

The first part of this paper outlines the project aims and characteristics. The second part explores the UOC context and the main features of ICT competences' course briefly. The third part explains how UOC participates in this research project and how the data has been gathered. Finally, the main results and conclusions of this phase of our research are explained.

INTEGRATING SYNCHRONOUS (REAL-TIME) INSTRUCTION INTO A FUNDAMENTALLY ASYNCHRONOUS ONLINE CURRICULUM
THE EXAMPLE PROVIDED BY UNIVERSITY OF MARYLAND UNIVERSITY COLLEGE

James J. Stewart, University of Maryland University College, United States of America

University of Maryland University College (UMUC) is a bachelor's through doctoral degree-granting institution with ~70K online students distributed throughout the world. Recently UMUC has integrated synchronous, or real-time, instruction into its fundamentally asynchronously-delivered online curriculum. This paper describes the transition process and assesses its results to date. Integration of synchronous instruction has gone well but remains a work in progress. Synchronous instruction is in supplementary use at an institution that remains primarily committed to asynchronous delivery of learning at a distance.

PARTICIPATIVE LEARNING ABOUT SUSTAINABLE PUBLIC SPACES

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ASPIS "Auditing the Sustainability of Public Spaces" is a project aimed at creating learning products for public participation in planning in two ways: first introducing sustainability as a core concept in the participation process, helping learners to better asses plans against a list of sustainable space criteria; second by creating innovative learning tools based on a GBL (Game-based Learning) approach, which allows learners to recognize the "stakeholders" in the evaluated plans, participate in simulated negotiation processes, play roles, argue for the best "sustainable" solution.

ENGAGING THE GAME-BASED LEARNING COMMUNITY: ENGAGE PROJECT

Maja Pivec, Paul Pivec, FH Joanneum, Austria, Roisin Garvey, DEIS, Ireland
Claudio Dondi, Mariarosa Di Nubila, SCIENTER, Italy

Today's technology literate students have grown up in a fast paced and interactive environment. Engaging their minds in the normal school curriculum requires innovative and creative learning techniques. If we can harness the enthusiasm for playing video games, and utilize it to teach core subjects and competencies, we may develop a new teaching methodology that will keep pace with tomorrow's children. Video games provide an interactive and collaborative platform for learning purposes. Collaborative learning allows participants to produce new ideas as well as to exchange information, simplify problems, and resolve the tasks.

Research results from many European funded projects suggest that either video games or the environment in which they create, can enhance the learning process. However, the uptake of this technology in the classroom has been slow with the major barriers being a lack of knowledge by the teacher in how to use the resource, a lack of time to prepare in adapting the game for the curriculum, and a lack of adequate technology. Teachers are trained in traditional methods of delivering lesson plans that do not usually include the use of games in the curriculum. They cannot be expected to know how to integrate games into their lessons to achieve the desired learning outcomes.

The games themselves can take a considerable amount of time to learn, often with the students knowing more about the game than the teacher. In an attempt to address this issue, the establishment of the Engage Learning portal provides resources in the form of sample games and best practice reviews, to assist European teachers in integrating video games into their lessons plans. The portal not only focuses on teachers, but also provides resources and activities for students interested in Game-Based Learning (GBL); for example the summer school offered to teach effective educational game design. The Game Development Industry has also backed this venture, by offering internships to students and mentoring potential developers of educational games.

This paper outlines the facilities offered by this project and the goals that the consortium endeavours to achieve. The success of the project is to a great extent reliant on the participation and enthusiasm of others involved in Game-Based Learning, and hence the promotion of the portal and its resources is actively encouraged.

THE PROJECT "MOBILE GAME BASED LEARNING"

Thomas Putz, evolaris next level GmbH, Austria

The project mobile Game Based Learning (mGBL) coordinated by evolaris next level GmbH

- has been implemented from October 2005 until December 2008,
- has been conducted by 30 researchers from 11 project partners from 5 European countries (Great Britain, Italy, Croatia, Austria and Slovenia),
- used nearly 600 person-months resources with a budget of 2.5 Mio EUR,
- was supported by the EU under the FP6 IST.

The overall goal of the project was to improve the effectiveness and efficiency of learning in the target group of young people (aged 16-24) through the development of innovative learning models based on mobile games. The biggest challenge in this project was to communicate content from different fields in a motivational, inclusive and emotional way. As the most personal and emotional communication channel the mobile phone was used to establish the link between learners and teachers.

The specific aim of the project was to design, develop and pilot a prototype game platform that might be used to efficiently develop games for m-learning. The basic idea is to use the mobile phone to implement games bridging the real and virtual world. These games are firstly intended to directly support learning via opportunities to develop knowledge and cognitive skills in an exciting and inspiring – and hence in a highly emotional – way, and secondly to indirectly motivate users to refer to other media (e.g. "classic" libraries, scripts, etc.) for learning purposes.

The mGBL platform is the core result of the mGBL project. This software platform enables the cost effective development of mobile learning games, the planning, the deployment, the management, the reporting as well as the control of those games for m-learning.

The mGBL project delivers 3 different mobile game templates:

- Game 1: Hybrid quiz simulation game template: "Ahead of the Game"
- Game 2: Board game template: "Mogabal"
- Game 3: Pervasive game template: "Get Real!"

In general, all students liked the games and also the mGBL platform. All indicators show that students like to use the games in a real tertiary education environment. Some of the students requested usage of the resource in other university courses. Overall, the students were very enthusiastic about using the game Mogabal for their final course exams. Many of them pointed out the efficiency, flexibility and ease of use of the platform. The new experience, fun and playability of the games gave them additional motivation. More than half of the students stressed that they learned more by playing the games, paid more attention while playing the games, and were more engaged when using the "learning by playing" method.

The mGBL project has proven that it is not always necessary to deploy the most advanced 3D graphics and cutting-edge handsets in order to ensure a good user experience. In contrast, a practical "low tech – high involvement" approach is in many cases much more suitable in the learning context, especially when considering younger people in formal education. It is of utmost importance that the systems can be used by all pupils and students and that it does not require special devices, which may not be available or affordable for some target groups.

Websites where to find additional info:

- www.mg-bl.com
- http://mgbl.sourceforge.net/
- www.evolaris.net

HOW TWITTER HAS BEEN USED FOR TEACHING AND LEARNING

Stephen Jenner, British Council India, India

Introduction

This paper presents findings on how the social networking application Twitter has been used as an educational tool. The research is taken from the end of year project submitted by the author for the second year of the UK Open University Masters programme in Online and Distance Education (MAODE), submitted in August 2009. The research included reflections on the author's own experience of using Twitter as a student on the course.

Areas of investigation

1. Defining Twitter – who uses it and for what purpose/s?
2. Twitter case studies – how, and where, have teachers and learners used Twitter?
3. Twitter and the OU MAODE programme – the author's experiences of using Twitter as a student
4. Strengths and weaknesses of Twitter as an education tool, including:

   - Tweet length
   - Online identity
   - Privacy
   - Mobile learning
   - Content
   - Personalisation

Investigation methods

- Internet-based Twitter research, case studies and blog posts

- Published research in the field of online and distance education

- Small-scale research in the Twittersphere

- Conversations with fellow Twitterers and MAODE students

Recommendations for the use of Twitter

These recommendations on the use of Twitter are grounded in the observations made earlier in this paper, and should be read in the context of professional, sector-specific users, i.e. English Language Teaching (ELT) professionals and e-learning practitioners. The main recommendations are:

1. Twitter is a very effective network-building tool which can be used to build professional communities of practice among like minded professionals.
2. Twitter has also been shown to be a useful tool for professional development.

Additional areas for research

In order for these recommendations to be put into practice it would be wise to carry out some additional research into who uses Twitter and for what purpose/s. The main areas of research I would recommend are:

1. Additional, action-based research into how specific professional communities are using Twitter.
2. A cataloguing of Twitter 'behaviours' will be useful for practitioners who wish to integrate the tool into either formal or informal learning.
3. Twitter, due to its fusion of personal/professional content and its synchronous/asynchronous characteristics, is a highly appropriate context in which to explore the concept of online identity further.

ENTERPRISE 2.0: WHEN SOCIAL NETWORKS TRANSFORM INTO COLLABORATIVE PLATFORMS

Helene Raimond, Pascal Poty, The Walloon Agency for Telecommunications, Belgium (local Government)

Small and medium enterprises (SME) are especially pressured in the competitive economic environment towards greater efficiency, specialization and innovation. Web 2.0 technologies can be used as enablers of new working methods but are the web 2.0 technologies suited to the SME common management paradigm? New communication tools such as blog, microblog, mashup, forum, wiki, etc. transform web users into potential journalists, editors and actors: The in-house professional social networks of businesses are much more centred on people and allow inventive workers to raise their own profile, regardless of their rank or position in the organization. SME are often depicted as having informal management systems, implicit knowledge and poorly structured information. Informal management may seem well suited to communication through social networks but appearance is misleading. SME leaders are often very directive and information sharing depends on human interactions. The use of 2.0 technologies will lead to a new organization architecture: still informal but with structured explicit knowledge, based on high value information sharing; directive but taking into account all the experience and knowledge of employees. So, the use of 2.0 technologies implies a deep structural change of SME.

IT specialists of the Walloon Agency for Telecommunications regularly lead quantitative surveys to determine the level of IT adoption among Walloon enterprises. The most recent results show that bigger Walloon companies are still in the discovery stage of professional social networks. Executives and company management are signing up to "check things out", "to forge contacts", but the potential for improving the productivity of companies these networks hold still remains too indistinct to many users. However, the annual survey has also shown that the use of social networks isn't anecdotic nor restricted to big enterprises. Indeed, around 20% of the Walloon SME having a web site, also created a page on at least one social network, most of the time on Facebook.

The economic fabric of the Walloon region, 94% of which is made up of companies with less than 50 workers, is less favourably disposed towards the use of in-house professional social company networks. The smaller size of these businesses will encourage them to use the existing platforms on the web or set up by their professional associations. Against this backdrop, purely and simply banning Facebook from being accessed from company computers raises a number of questions. The reasonable use of this type of tools, even when used for leisure/entertainment purposes, will enable a high number of workers to understand the implications of social networks and the way they work.

If we really mean to see the use of professional social networks move forward in our region, industry sector associations of SME will need to be set up that focus on sector-related issues. Either these associations use existing platforms such as LinkedIn, Viadeo, etc., or the professional industry associations act to set up professional social networking platforms that are made available to their members, turning this service into account in the long term. Finally, developing professional social networks will be an answer to the demographic problem of the aging workforce of baby boomers. Participating in such networks will make it possible to transfer knowledge between generations through media that are daily used by younger workers.

EDUTUBEPLUS: A EUROPEAN CURRICULUM RELATED HYBRID VIDEO LIBRARY AND E-SERVICES FOR THE PEDAGOGICAL EXPLOITATION OF VIDEO IN CLASS

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The notion of using video as an instructional medium to support learning is not new, although the use of video in class as a pedagogical instrument of active learning is still in the beginning. Quite a few on-line educational video clip libraries are already in existence containing a significant number of high-quality, professionally produced educational video clips. Extensive work has also been done in the educational technology domain and both the Learning Content Management System (LCMS), and educational software markets can be considered mature. On the other hand, the power of participation, creation and sharing has led to a large number of user-generating educational video sharing and social networking sites.

EduTubePlus presented here is not one more "educational YouTube", nor is it just another on-line educational video library. It addresses an opportunity for the educational school community as well for the educational TV and video market and the educational technology market, that emerges by adapting, extending and effectively integrating existing technical solutions, digital educational video resources and services, pedagogical knowledge, best practices and success stories from the aforementioned domains and markets, taking advantage of their strengths and finding ways to overcome their weaknesses.

The implementation of this *conceptual approach* within the *EduTubePlus project (www.edutubeplus.info)* leads to the development of the EduTubePlus e-service, a European, multilingual, hybrid video-based e-service for schools, which includes a curriculum-related video library with over 5,000 of curriculum-related video clips by major European educational broadcasters and video providers, and a set of tools for the effective use of video in class. These tools enable teachers and educators to enrich the video library with user-generated clips, to develop, translate and share video-based learning scenarios and lessons, to search video-based resources using terms related to their national curriculum and to use video in a pedagogically relevant manner in-class.

The video clips are selected for their particular suitability for in class use, according to a well-defined video selection strategy, and are linked with national curricula data from each of the participating countries. With appropriate learning scenarios, almost all subjects of primary and secondary education can be addressed with these video resources. The video-on-demand platform of France5/lesite.tv service forms the basis for the EduTubePlus platform and is being extended to support of user-generated video-clip uploading and manipulation. A multilingual ontology of multinational curriculum related terms is used to enable teachers navigate and find multicultural resources using terms related to their national curricula in their native language. By developing and integrating an on-line video-based Learning Scenario Design tool which follows the principles of the EduTubePlus pedagogical framework, teachers are encouraged to develop and share video-based learning scenarios and activities. With the support of a Learning Content Management System linked to the EduTubePlus video-clip library, teachers will also be able to develop and share on-line lessons, combining all types of learning objects. A text translation service for the on-line translation and localisation of video-clip subtitles and learning scenarios further strengthens the EduTubePlus service. The EduTubePlus service will be available at the http://www.edutubeplus.eu site (Summer 2010).

 The EduTubePlus project *"A European curriculum related video library and hybrid e-services for the pedagogical exploitation of video in class"* is co-funded under the European eContentPlus programme. The project involves 17 European partners[1] and is coordinated by the Research Academic Computer Technology Institute (RACTI/GR). Within the context of the project more than 50 European schools will use and evaluate the service creating an active educational community and providing valuable feedback. This hybrid European video-based e-service will also serve as a way to explore new business models for the Educational TV and video market and the market of Internet based services for schools. More information on the EduTubePlus project can be found at the project's web site: http://www.edutubeplus.info/.

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[1] RACTI (GR, Project Coordinator), France5/Lesite.tv (FR), Hellenic Ministry of Education / Educational TV (GR), UNED (ES), Companhia de Ideias Anonimas (PT), RAI/RAI Educational (IT), EDUHI (AT), EduCentrum (BE), Klett (DE), The University of HULL/IfL (UK), MENON Network (BE), SIVECO (RO), CEDETEL (ES), ATiT (BE), The University of Jyväskylä (FI), FMC (IT), SZÁMALK (HU)

BLOGGING AS COMMUNITY BUILDING APPROACH IN A UNIVERSITY COURSE ENVIRONMENT

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Introduction

The students in this course formed a community of practice (Wenger, 1998) by using a course blog. This class used online tools for learning for the first time, though almost everybody had some experiences in reading and writing blogs. The students had to use the blogging environment regularly and reflect on each other's writings in a weekly schedule. The aims of the course were to form a knowledge building community of students, to foster the mastery of some online tools and to practice some forms of online communication and public writing. In this paper I discuss how students work and what they think about blogging as classroom task, how and about what kind of topics they write and how intense and active is their reflection on their peers, and what types of patterns their interactions show in the posts.

Learning community as community of practice and using a course blog

This asynchronous blogging tool is appropriate for the purposes of building a learning community (Baim, 2004), for writing and posting assignments, reflecting on peers' writings, sharing and communicating. Students worked together for a common goal, they shared their writings about selected topics concerning Japanese culture and reflected on each others' writings and comments. They used the blog as a discussion space. The students could refine their ideas through using online interactions that led to more provocative questions in face-to-face communication. Blogging can be used in various ways to engage students in discourse, exploration and discovery (Glogoff, 2005). The course blog is an open source social software, a networked application, that supported forming and managing communities of practice as a platform (Shirky, 2008), support and encourage the individuals to group learning, while providing the control of time, place, presence, identity and relationships of the individuals (Anderson, 2005). The reflections provide feedback to the writers, and encourage them to reflect and think more about their writings.

Method

The course and the study were conducted at a Hungarian university between September and December 2009. 20 Japanese Studies B. A. students participated in the course, their age ranged between 20-26 years. They have already learnt together for about one year, so there were some friendships established among them and they formed a community. The writers of the posts and the commenters got feedback by email when somebody left a comment on the posts. The blog was open to everybody, so the posts writers were expected to get feedbacks from outside their class, too.

Results

The class blogged weekly, through 14 weeks. During this period, the students wrote 192 posts and posted about 900 comments in this blog environment. I analysed the interaction of the students through social network analysis methods (Scott, 1991, Wasserman and Faust, 1994), my intention was to reveal the relational and information network of the students, to explore the connections and the formation and structure of the groups, to detect the flow of information between the students and identify key persons and opinion leaders. This information could be important because the structure of the course, the assignments, the assessment methods, or the motivation of the students can be defined or modified. The results showed that blogging as a blended classroom method is a very motivating approach for community building, knowledge sharing and learning in general. This method could be used in blended learning courses. The students had a lot of ideas to write about, and they commented not only each others' posts, but also the comments of their classmates. The stronger and weaker relations among classmates can be identified in their comments and comment threads. The results showed that the interaction among close classmates was more intense, than the interaction among students with fewer classmate connections. The results of the network analysis showed that the students of the course formed community with strong cohesion and dense network structure. The flow of information and knowledge exchange was dynamic, the density of the student community's interaction network was a good indicator of this dynamic information flow. This case study showed that network analysis could be used to analyse the students' interactions in a networked aspect, though ffurther research and experimentation is needed to understand the whole dynamics of such classroom blogging projects and their effects on community building.

THE RESEARCH OF DIGITAL INSTRUCTION ENVIRONMENT AND RESOURCE CONSTRUCTION BASED ON WEB 2.0

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In view of existing problems of teaching based on the Internet, we made a research project of Web 2.0-based models for blended instruction, large course team, multi-meta student support and user participatory technology through the designed experiment methods based on the technologies and concepts of Web 2.0. Blended instruction model is to integrate the advantages of the traditional learning mode and the digital e-learning by combining the static and dynamic resource, the systematic learning and selective learning, the online learning and offline learning, individual learning and collaborative learning based on blended learning theory. Large course team model is to set up a large course team with teachers at all levels of OUCs, course manager and support staff who complete together the work of course design, construction, implementation, evaluation, service and management in one platform. Multi-meta student support model is that the large course team provides full and comprehensive service of learning-guide, learning-help and learning-promote in various ways and by multiple tools. User participatory technology model is to technically ensure multiple users to work together with the instruction activities and management in the one-stop platform by providing a unified access interface and different participatory tools for them. The research explored resources construction model supporting blended instruction and initially realized the joining-up of the learning resources, links and the process. And the research built a "one-stop" instruction environment supporting multi-meta student support at diversified levels and significantly increased students' participation of e-learning and teaching effectiveness.

"WE USED IT THE WAY WE WANTED TO": RESEARCH ON LEARNER SELF-ENGAGEMENT IN WEB 2.0 PARTICIPATORY ENVIRONMENTS

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Problem Statement

We frequently hear case studies of learners benefiting from the use of blogs, wikis, and other participatory tools when the instructor and/or the course requirements heavily scaffold the use of these tools. But what if these prompts are missing, inconsistent, or poorly designed? Will learners figure out on their own how to achieve learning benefits from participatory tools that are made freely available to them? Little research has been done that focuses on learners' perspectives, particularly analysis of situations where students successfully self-engaged in collaborative learning using Web 2.0 tools in a course environment despite the instructor's lack of engagement. Given the ongoing struggles of motivating faculty to provide well-thought-out social learning opportunities, and given the pressing need to engage students with each other in ways that foster educational success, a better understanding of the circumstances and motivations that lead to learners' self-engagement is timely and critically necessary.

Description of Study

In this ongoing research study, we analyze what factors besides instructor/course requirements motivate students to use blogs, wikis, social bookmarking, and other participatory tools in their learning activities. This research was begun in the fall of 2009 and expanded in the spring and summer of 2010. It includes quantitative data on patterns and volume of participation as well as qualitative insights from interviews and open-ended survey questions. One learner literally said "since [the instructor] wasn't clear about how we needed to use [the blog], we used it the way that we wanted to." Others spoke frankly about how and why they used participatory tools that had been made available to them with little or no instructions, adapting their work on assignments, research, and contextual understanding to collaborate via these tools.

This study does not focus on specific tools, and in fact the courses analyzed use different tools and platforms. This study does, however, indicate some recommendations for deployment of participatory tools in order to create the circumstances that foster self-engagement, for example, making the tools "always on" during and after the course, providing a notification mechanism to inform students of activity, connecting (literally) the participatory learning activities to instructor-provided course materials, and clearly identifying the participants to each other to help build community, among other factors.

Importance / Relevance

Web 2.0 social interactions are now a fundamental component of self-actualization and community-building for at least the younger generation (some studies argue all ages), and these interactions are applicable to learning processes and skills. However, we still do not know enough about how and why students engage in these interactions to accomplish their learning goals. The assumption that participation is only driven by instructor expectations is too simplistic, and understanding student motivations and perceptions can help to design more robust, student-centred learning environments. Furthermore, faculty's slow adoption of Web 2.0 participatory environments (and more importantly, the accompanying mindset) forebodes the ongoing prevalence of authoritarian faculty and passive students. If we have a better understanding of when and how participatory tools and environments can become self-driven by students, these tools may start to provide the means of bridging the gap in teaching paradigms, without requiring instructors to change behaviour. This research is highly relevant to all of us who are seeking creative ways of offering learners new, empowering ways of learning, capitalizing on readily available tools and learners' own motivations.

MAPPING NEWLY IDENTIFIED WEB 2.0 BENEFITS TO KNOWN BEST PRACTICES IN DISTANCE EDUCATION

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Recent research has confirmed and identified specific benefits to the use of Web 2.0 technologies within the online classroom. This paper proposes a strategy designed to further enhance these benefits by mapping them onto known best practices within the distance education literature in order to help optimize the use of Web 2.0 technology within the online classroom.

THE MULTI-LINGUAL VIRTUAL SIMULATED PATIENT PROJECT – MEDICAL DIAGNOSIS WITH AVATARS

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The Multi-Lingual Virtual Simulated Patient Project (MVSPP) involves the creation of a virtual simulated patient that simulates a real human patient presenting several symptoms for medical students and health care trainees in the field of primary health care. Students will be able to interview the patient to diagnose his/her diseases as a doctor would do in a real situation. The virtual patient can communicate using natural language and express different moods that depend on the diseases he/she suffers from and on the student's behaviour.

MVSPP builds upon a previous project run by IAVANTE (Spain) and the University of Granada (Spain), which developed an embodied conversational agent (ECA) that simulates a real human patient presenting several symptoms for medical students and health care professionals in the field of primary health care. Students interview the ECA to diagnose his/her diseases as a doctor would do in a real situation. This virtual patient can communicate using natural language and express different moods that depend on the diseases he suffers from and the student's behaviour. The ECA's behaviour is done by means of the coordination of several modules devoted to different tasks: natural language understanding, dialogue management, emotional state control and natural language generation. An ontology that gathers the domain knowledge of the agent specifies a semantic language that the modules use to communicate themselves.

Currently, this sort of simulation is usually done through the use of actors, a practice which is widespread as it does effectively permit the detection of errors in the clinical interview with the patient. However, the process is very costly, both in time for the training of the actors, as well as the need to physically bring the actors and the trainee doctors to the same geographical location, which apart from logistical issues, also disallows the use if e-learning as a mode of provision for such courses.

The MVSPP project is taking the work done on the ECA forward in two different ways. First it leads to new simulated patients developed in six new languages, namely English, Italian, Portuguese, German, Hungarian and Bulgarian. Secondly, these language versions are being adapted to produce so-called 'non-native' versions, i.e. virtual patients that speak like a member from an ethnic minority in the respective country, e.g. a Turkish patient speaking in German at a German clinic.

Arguably the most ambitious aim of the project is however in fact promoting the use of VSPs, aiming at the mainstreaming of their use within educational systems. The project partners all believe that VSPs can become an important and effective adjunct to the current suite of training tools used in medical education, and in this belief will organise pilot courses and dissemination seminars in each of their countries, so as to help test the VSPs created, but also, and more importantly to demonstrate the use of them in practical settings and to discuss the advantages of them both with this practitioners as well as with stakeholders in the system.

IN THE PRESENCE OF THE PAST: A FIELD TRIAL EVALUATION OF A SITUATED SIMULATION DESIGN RECONSTRUCTING A VIKING SHIP BURIAL SCENE

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In this paper we report on a project (INVENTIO) where we aim to invent and create digital genres, for use in contexts of learning. Based on the convergence of mobility, wireless broadband, advanced graphic capabilities and positioning/orientation technology, we have conducted a field trial with a prototype of a new genre for use in education and learning. A *situated simulation* requires a broadband (3G) smartphone with substantial graphics capabilities, GPS-positioning features, accelerometer and electronic compass (magnetometer). The relative congruity between the real and the virtual is obtained by letting the camera position and movement in the 3D environment be determined by the positioning and orientation hardware. As the user moves in real space the perspective inside the virtual space changes accordingly. Current versions of the system run on Apple's iPhone 3GS (other platforms are under consideration). In the full version of the paper we report on a field trial evaluation of a situated simulation reconstructing the Oseberg Viking Ship as it may have looked in the year 834, just before the grave mound was erected. This multimodal simulation consists of a 3D environment with 3D objects, natural sounds, written text and audio narration related to various positions and objects in the environment. The small-scale field trial reported here took place in October 2009 at the site of the Oseberg Viking Ship grave mound 100 km south of Oslo. The Oseberg prototype was extended to a full reconstruction of the ship and its content in a 3D virtual environment, which could be accessed and studied at the actual site.

The trial involved groups of high-school students from the area. During the field-trial the students were observed and filmed, the students a number of questions. All but one student answered 'yes' on the question if they thought this kind of 'augmented reality' had a future. A wide variety of possible themes and purposes for future use were suggested. Several meant that it could be used to tell or teach about history about things that do not exist anymore. Others meant that could be used to show future situations, e.g. related to water rising as a consequence of climate change. All of the students concluded that they were happy with the testing, adding that it had been fun, instructive, something new, cool!, exciting. There were no gender differences in terms of experiences with the system.

The field trial demonstrated the system was relatively robust and the user interface was relatively intuitive. However it also showed that the iPhone is sensitive to bright light, which here was compensated by using umbrellas. The trial demonstrated a well-balanced interplay between the touch system of the iPhone and the design of the application. A wide range of technical features was suggested by the students, which basically entailed adding more features (sound, video, etc.). The project is in the process of considering several of the suggestions proposed. The trial also indicated that the learning aspects were positive. The students reported high motivation for using the system.

MULTIMEDIA SENSORS IN LEARNING BY MOBILE COMMUNICATION

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In a rapidly expanding space of knowledge, both teachers and learners face the challenge to use wireless multimedia sensors. The emergence of wireless sensors, able to monitor their close environments, can provide new learning potentials. Sensors are various devices that measure a physical quantity and convert it into a signal which can be read by an observer or by an instrument. They receive and respond to a signal or stimulus. Here the term "stimulus" means a property or a quantity that needs to be converted into electrical form which can be further used for electronic devices.

A basic concept of the idea of empirical learning is that people should be prepared and encouraged to "learn how to make measurement by sensors". A special challenge to learning arises from the fact that even in the world of sensors it is true that images or sounds of the social environment of perception can only be meaningful in social relationships. Today, the diversification of learning and the explosive expansion of technical opportunities show a curious synchronism. As a result of IT diffusion and increased access to broadband internet and mobile networks, the technical conditions of individualized learning are undergoing a transformation in terms of quality as well. Substantial changes have occurred in the Man-Machine paradigm owing to individual linkage to devices of mobile communication, an increasing sensitivity of sensors, and the complexity of functions offered by wireless devices of communication.

In mobile learning the problem of quality of service is the ability to provide different ways to access applications, teachers and learners, or data flows, guaranteeing a certain level of learning performance. This paper proposes an analytical approach to and raises the problem of the role and spread of wireless multimedia sensors in everyday life and their effect on mobile learning. This problem-classification links to the proposal of an important task: the formulation of a new quality service reference-system in mobile learning.

VISION FOR THE FUTURE: MOBILE LEARNING, ASSESSMENT & FEEDBACK

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Introduction

In this paper we will share the experiences of a wide scale five year innovation to introduce mobile learning and assessment processes into health and social care education. We will address the following conference themes and questions: using existing and emerging technologies to create added value for learning; digital pedagogy and success factors in the new technology environment and new learning strategies and methodology/pedagogy changes provided by the new learning tools.

Background

The Assessment & Learning in Practice Settings (ALPS) Centre for Excellence in Teaching & Learning (CETL) is based in the north of England. The Centre is a collaboration of five Higher Education Institutions (HEI), each with reputations for excellence in practice (work) based learning and assessment, for students in the health and social care professions.

The Centre has developed ALPS Common Competency Maps and a range of innovative assessment tools that facilitate a 360 degree type of feedback from the range the stakeholders with whom students interact whilst in practice (work) based settings. For the purpose of this paper, we will discuss the mobile technologies that were used and developed to enhance these assessment processes, the student perspectives on these developments and our own reflections on the development and implementation processes.

Intervention: Using existing & emerging technologies to create added value for learning

ALPS is a large scale implementation with a 1000+ users. ALPS develop an m-learning solution to provide "any time, any place" access to assessment tools, learning materials and tutor support for students whilst on practice (work-based) placement. There was no guarantee that students had access to PCs, laptops or even a login to a wireless network in the work place. It was considered high risk (at the time) to rely on using students' own mobile phones, as whilst most students had these, the functionality varied greatly (Sandars and Pellow, 2006). Another consideration was that some ALPS students worked in locations with limited or no connectivity (for example social work students working in certain remote rural areas or radiography students working in lead-lined rooms). This meant any solution adopted would need to work offline, or at least in a sometimes disconnected environment. Healthcare Trusts were concerned about data security so there needed to be a fit with their IT and security policies.

Evaluation: Digital pedagogy and success factors in the new technology environment that we created

Following ethical approval from all ALPS HEIs, we undertook cohort specific focus groups on each site with groups of students who had used the mobile devices and assessment processes. In all, seven professions and seventy nine students were included in the first stage evaluation.

Conclusion: What are the new learning strategies and methodology/pedagogy changes provided by the new learning tools?

This technology has expanded the options students have for accessing learning and assessment material. Student choice is a crucial element in good curriculum design. Mobile devices allow for in the moment reflections, captured in written, audio, or pictorial medium, which can be returned to at a later, convenient time to stimulate memory and engage the learner in deeper reflective processes.

USING THE eFACTOR TO IMPROVE MOBILE AND WEB-BASED PEDAGOGY

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There is a consistent debate about how to use technology effectively in the learning environment which has now been coupled with the decision about which technology to use. Without becoming embroiled in arguing for one technology over another, this paper examines how Internet technology can be effectively used in the learning process and uses mobile technology to illustrate the use of technology within a pedagogic structure and how the eFactor can be used to assist in the selection of effective content.

The process of using Internet technology for learning in schools has not been seamless and in some ways there is almost a dysfunctional aspect in the application of learning technologies that stems from its introduction and growth in the education sector. That growth has seen a myriad of change from the transformation of paper material to digital systems as well as discussions about the best model to implement this technology. Yet, for all the time devoted to systems and resourcing, there appears to be less time apportioned to teachers to assist them in merging Internet technology with learning for the student environment. The challenge to educators is more than a mastery of new technologies, it is to use technology so that education moves from the passive landscape created by Gutenberg to an engaging and individualised environment.

Mobile Internet devices are a popular tool used by students not only to communicate but more importantly to express themselves on platforms ranging from sms to social networking sites using photos, music and text. The prolific and personalised use of such devices by students, particularly the mobile phone, creates conditions that pre-determine the planned use of these devices by teachers in schools. A one-dimensional use of mobile technologies in schools ignores the familiarity and multi-tasking capability that students have with the devices. The multimedia functions, game-based technology, web browsing and real time conferencing are just some of the functions that can be utilised in the development of a learning scenario. However, the development of the scenario is more than the teacher knowing how to use the device, it is a matter of the teacher linking the application simultaneously with the curriculum and an aspect of learning whether it be inquiry-based, problem solving, etc. In this way two purposes start to be realised; the students have the opportunity to be engaged and challenged and the teachers understand why they are using technology. Apart from colleagues, teachers have little assistance in selecting or creating appropriate on-line content as existing guidelines are mainly created for the higher education sector. The eFactor clearly delineates between the different types of materials that can be posted on the web and acts as a definite rubric for teachers to follow as they gain familiarity and expertise in developing learning scenarios with web-based applications.

AUTONOMOUS LEARNING STRATEGIES FOR WEB 2.0

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Nature of learning

This paper is an attempt to answer the question, "What are the characteristics of the new learning environments that change the way in which we learn?" With the advent of interactive Web media, for the first time we are understanding the act of learning as a response to changes in the learning environment, rather than as an adaptation to a predetermined learning system. The traditional means of knowledge production – top-down, one-to-many – required that the producer, disseminator or publisher of knowledge, distribute and organize information in a way that is intelligible to the learner, in a more-or-less agreed-upon format, as a response to the expectations of teachers in academic institutions or more largely, of the managers of learning systems. With the emergence of the interconnected P2P network however, we are discovering that knowledge can be produced, searched, organized and shared in an infinite number of configurations, without necessarily resorting to instructors or external learning management systems. Knowledge is available to all, directly.

Nature of knowledge

This interesting ecological shift brings with it a series of equally interesting questions, the first being, "what kind of knowledge? In Web 2.0 environments, persons are presented with an evolving epistemology where the learner is expected to define not only the process of learning, but also the meaning and value of knowledge itself. The many-to-many communication and zero-cost publishing have created a world where fluid knowledge is collectively built and deconstructed on a daily basis. It is no longer sufficient to "know" something (or learn something), one must keep track of ideas in constant motion, and ideally participate in their generation in order to fully grasp the evolution of their bases. For some theorists, this means that the more familiar "expert, clearly defined and well-organized knowledge" is giving way, under the push of networked sharing, to ideas that are much less established and are "in continual flux" (Siemens, 2008). The new-found ability of learners to aggregate information from any point on an almost infinite network, and to *contribute* to shaping its contents, requires that learners undergo an epistemic shift from a belief in static knowledge to a belief in fluid knowledge. This is a very interesting point, often made by network theorists and observers. There is some confusion in this however. The nature of knowledge has not changed with the appearance of information networks. What we are witnessing is that the value of uncertainty and fluidity is being discovered by many people simultaneously, as a consequence of their ability to network easily and quickly. Scientists have argued since the Enlightenment that knowledge will always remain an approximation of the unknowable, because of the limited capacity of the human mind to apprehend the empirical, and that this approximation can be perfected through dialogic experience much better than by lonely speculation (such as advocated by Aristotle). Indeed, knowledge that theoretically cannot either be disproven by others, or proven to be imperfect or faulty, cannot be called knowledge at all, but rather something closer to dogma or faith. Karl Popper expressed this idea with his famous epistemological axiom that "all knowledge is falsifiable".

Nature of networks

The second question that comes to mind when considering the fluid nature of communication made possible with Web 2.0 technologies, concerns the nature of the network and the types of interactions that it enables. In such an "information-rich environment", the new currency is the awareness of the information-seekers, so that we are witnessing the rise of the "economics of attention" in which the attention-grabbing value of any message outweighs the actual value of its meaning or intention.

The problem of learner autonomy

The problem of learning outside the institution has existed as an object of theoretical discussion for nearly half a century. We should note however that all earning environments, from formal education settings to managed learning systems to network aggregation, allow for different *levels* of learner autonomy. As we shall see, the mediation of learner-control requires meta-cognitive skills that are not universally distributed among the population. This problem is becoming the focus of emerging network learning theories.

THE *LEARNING CONTRACT* AS A TOOL TO PROMOTE E-LEARNING EFFICIENCY

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The new adopted pedagogical model (Pereira, Mendes, Morgado, Amante & Bidarra, 2007) at Universidade Aberta called for the use of new assessment strategies aligned with the most recent paradigm for assessment design in online learning. This new scenario supported the introduction of new authentic assessment strategies (Gulikers, Bastiaens, & Kirschner, 2004) that allow learners to attain deeper levels of knowledge, professional development skills and thinking processes. In this case, we explored a tool (the Learning Contract) to facilitate assessment authenticity as a way to promote student learning.

The Learning Contract (LC) is introduced as a structuring element for all graduate courses (Pereira et al., 2007). According to these authors, the LC:

> *"Acts as a mediator between the academic requirements … and the students' needs and interests. In effect, it defines the necessary level of structure in the context of a group learning environment and, at the same time, incorporates a certain degree of flexibility adjustable in function of student's personal rhythm and needs" (p. 29).*

Important emerging questions from this research that we intend to answer include: 1) how does the discussion/negotiation of the LC with the students contribute to their engagement in their own learning? 2) How can higher education e-learners be motivated to become active participants in the assessment process?

This research is based on qualitative case study methods as described by Yin (2003) and Stake (1999), to produce a descriptive description of the pedagogical model undertaken in response to the new educational policies in use at the university. This account was based on several triangulated sources of data, including written artifacts of student work; open-ended questionnaires of the students perceptions and experiences; and transcripts from the students online discussion forums.

Four main advantages in the LC negotiation are stressed by the participants: the clarification of the proposed assessment strategies; the participation in the decision process; the commitment; and the learning process management. Moreover, the participants also took advantage of the LC negotiation to debate issues pertinent to them such as the assessment strategies, procedural concerns, and the proposed competencies relationship to their real life. It is clear that the discussion and negotiation of the LC in its different components, some more related to the procedures and others more conceptual, promoted the participants reflection and commitment concerning the responsibility for their own learning process. McConnell (2006) emphasized the importance of reflection for the production of new forms of knowledge, metacognition and "the development of a 'deep' approach to learning" (p. 137). In our case, the participants were able to mention that through their reflection and discussions achieved new learning and understandings. The participants are empowered to manage and take control of, and responsibility for, their learning process, and consequently develop their personal abilities, not only to organize, design, implement and assess tasks but also to conduct a personal judgment of their performance. The results from this research show that the discussion of the LC prompted the participants to exercise responsibility for their own learning.

This opportunity was also used by the participants to further assume their responsibility and so clarify time management and scheduling adjustments. This is particularly relevant in our case, since we are working with an employed, adult population, who are only part time students. The LC and its discussion, empower students to make advanced planning decisions concerning both their professional and academic commitments. This is typical of lifelong learning contexts that are mainly self-determined and require participants to carefully manage their time. Furthermore, the fact that the LC is open to negotiation allows the participants to share their ideas, not only about the assessment strategies, criteria and instruments being used, but also to further their knowledge about assessment, making explicit their concerns and doubts rooted in their professional life.

ASSESSMENT OF ACADEMIC EVALUATION USING MULTIVARIATE STATISTICS

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Introduction

Traditionally, the assessment of academic yield for a given subject has been determined by means of a final exam. However, this scenario is changing towards a continuous assessment, which implies that the lecturer obtains partial marks along the year through partial exams, practical assignments, etc. Furthermore, e-learning platforms which are being implemented at many universities facilitate the possibility to register personalized data of exercises, exams or assignments conducted on-line by students. This academic information is kept in databases. As a result, the lecturer may have a set of partial marks available from each student that, properly weighted, lead to the final mark. Most lecturers rarely take a moment to analyze if the academic evaluation criteria were properly defined attending to the complete set of partial results achieved by the students. In this paper, principal component analysis (PCA) was applied to a real dataset of academic marks as a complementary tool to analyze if the evaluation procedure of the student yield was suitable and to discuss possible weak points in the evaluation approach.

Materials and methods

The dataset for this study corresponds to partial marks of 77 students in the subject 'Statistics', corresponding to the degree of Civil Engineering at the Universidad Politécnica de Valencia in the academic year 2002-2003. In this case, only a final exam was proposed which consisted of 9 questions with different sections. The weight coefficients assigned to each question were established by the lecturer according to its difficulty, but it does not imply that these coefficients are the most suitable ones to assess the academic yield of students. These data were arranged as a matrix of 77 individuals (students) by 24 variables (i.e. the scores obtained by students in the sections of the different questions). A PCA was applied to this matrix using the program SIMCA-P (www.umetrics.com) after centering the data and scaling to unit variance. The cross-validation criterion was used in order to determine how many principal components account for the relevant information in the dataset.

Results and discussion

PC1 is the linear combination of the original variables that explains the highest amount of the total data variability. In this case, PC1 explained 31.8 % of the total data variance and it was the only principal component that satisfied the cross-validation criterion. The projections of individuals over PC1 are called t[1] scores. It was obtained that PC1 clearly discriminates between students who passed the exam versus those who failed. Furthermore, this borderline between fail or pass was quite well determined. Actually, the correlation between the final mark and t[1] scores is strong ($r = 0.984$). This result indicates that PC1 reflects the academic yield of students. Loadings are the weights or contribution of variables in the formation of a given component. The highest marks obtained by students in average corresponded to Question 1. By contrast, it was the one with lowest loadings in PC1. This result indicates that Question 1 was probably rather easy even for those who did not devote much effort to prepare the subject and, therefore, it did not reflect very clearly the academic yield. Question 8 was the second one with lowest loadings and, remarkably, students got the lowest marks in that question. It probably resulted too difficult even for those who prepared properly the subject, and the marks in this question did not reflect properly the global yield. Given that Question 1 and 8 did not reflect so precisely the academic performance of students, we suggest that a lower weight coefficient should have been assigned to both questions in order to calculate the final mark. Moreover, one student slightly outlier according to the distance to model was identified. The results illustrate that the application of efficient statistical tools to academic datasets might provide complementary information about the quality of the evaluation criteria used by the lecturer for academic evaluation.

VIRTUAL PRACTICAL PLACEMENT: THE ROLE OF NEW TECHNOLOGIES IN PRACTICAL PLACEMENT

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Career Development Offices prepare students for meaningful work opportunities, help them to develop career decision-making skills and to use them during university study period and throughout life. Career Development Office at Kaunas University of Technology directly works with various companies and enterprises. The mission of this Centre is to create proper career opportunities for university students. Aims of the Centre are reflected by the projects that Kaunas University of Technology is engaged to. First project is related to the role of new technologies in practical placement. The second is European project that seeks to create a European Cooperation Network able to assemble and to coordinate the efforts towards a better collaboration between universities and enterprises.

Situation in Lithuania

Practical placement is based on a triangular agreement between the higher education institution, student, and the enterprise/other institution. Higher education institutions cooperate with the enterprises/other institutions in order to help students to acquire specific skills that are relevant to their future profession. The main actor of practical placement is student. Other actors of practical placement process are (1) Coordinator for practical placement of students (on the department level); (2) Academic supervisor; (3) Supervisor from the enterprise of practical placement. During the period of practical placement students may have consultations with academic supervisor. After the period of practical placement students have to prepare a report. Higher education institution ensures that the results of study placements will be recognized as a part of student's curriculum. Practical placement results are being assessed and recognized by recording the results in Diploma Supplements.

Cooperation between University and Enterprise: the Case of Kaunas University of Technology

Practical placement should be related to specialization (in the context of choosing enterprise; e.g. international business management – international company, it can be local department of international company). E. Learning Technology Center (EMTC) at Kaunas University of Technology started to provide practical placement for IT engineering students to research and develop e. learning technologies. Also preferably but not necessary practical placement can be related to final BA-work topic (in the context of choosing work-place, department; e.g. international department, financial department, etc.). Students work is also directly related to their final BA-work topic. Usually practical placement is compulsory for undergraduate students, but there are volunteer students from first or second course that are interested in getting experience in IT field, and start building their career.

Practitioners Case in KTU E-Learning Technology Centre

Practitioners come to KTU E-Learning Technology Centre with high motivation to get experience and start building carers. They get assignments to build tools, that later will be used for centre's services for university and society, so they are working on important issues, must take a lot of responsibility and do the best they can. This responsibility creates a real world's environment and this practice comes closer the processes and problems, that practitioners will encounter then they will leave the practice and will join companies. Besides psychological factors, practitioners also gather some new knowledge and develop some new skills. This experience is crucial, then looking for the first job of the life. Additionally they get certificates, which show their abilities to successfully integrate their selves into working community.

EUE-Net Project: Better Collaboration between Universities and Enterprises on European Level

European University – Enterprise Network (EUE-Net)[1] is an initiative to create a European Cooperation Network able to assemble and to coordinate the efforts towards a better collaboration between universities and enterprises at European level, to disseminate cooperation models and to promote best practices of collaboration in Europe, totally oriented to support the new European initiative "New skills for new jobs". While the new jobs requirements could not be identified without the cooperation of enterprises and entrepreneurs, the target groups of the project include graduates, students and learners in European universities, academic and research staff in European higher education institutions, university leadership, university stakeholders but also entrepreneurs, professional staff from enterprises, managers and policy makers.

KP-LAB: BREAKING NEW GROUND ON HOW BEST TO CREATE KNOWLEDGE THROUGH LEARNING

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The 5 year KP-Lab project funded under the FP6 of the European Commission's Programme for Research and Technological Development is about developing theories, tools, practical models, and research methods that deliberately advance the ways in which knowledge is created and which help to transform knowledge practices in education and in the workplace. The multi-disciplinary KP-lab project consortium chose to adopt the knowledge-creation metaphor of learning as a way to provide the theoretical basis for the project, and to use the project as a way to develop the associated Trialogical Approach further. This approach aims not to be an over-arching theory but rather a specific approach to knowledge creation through learning which can be used to support research and to develop innovative technology-mediated collaborative practices as a way to improve knowledge creation processes where the role of both knowledge artefacts and practices are emphasised. This approach puts forward arguments about new ways of creating knowledge and transforming practices related to collaborative knowledge creation in common learning contexts and suggests ways in which these practices can be enhanced, elaborated and improved through the application of advances in information technology. By putting forward a model which allows the researcher to consider the processes and practices in collaborative knowledge creation supported by versioning of knowledge artefacts, it provides a vocabulary for further development of tools, processes and practices. It also allows for scientific research into the effectiveness of new tools and practices within this common model.

The general characteristics of the trialogical approach have been embedded in 6 core design principles,

1. organising activities around shared "objects",
2. supporting integration of personal and collective work (through developing shared objects),
3. emphasising development and creativity on shared objects through transformations and reflection,
4. fostering long-term processes of knowledge advancement with shared objects (artefacts and practices),
5. promoting cross-fertilisation of various knowledge practices and artefacts across communities and institutions and
6. providing flexible tools for developing artefacts and practices.

There are a number of significant innovations represented in this approach, its merging of project realisation tasks with acquisition of sophisticated knowledge creation skills, its manifestation of collaborative work in material knowledge objects, its support of both ideas-driven and organised work in common environments, its analyse of learning in iterative, long-term collaborative work, its promotion of the teaching of knowledge practices, its development of technologies that both support mediation and reflection and also measure their impact, and its focus on changing practices.

Coming to the end of its lifetime, KP-Lab is actively promoting the outputs of its work which include significant recommendations related to knowledge-creation in particular settings that have emerged as a result of the extensive empirical research work carried out by the project team. These outcomes relate specifically to knowledge creation in multidisciplinary design management, to work that involves the combination of conceptual collaborative problem solving with practical solution development, to learning activities aimed at specifically stimulating students' knowledge creation processes and to work that calls for collaborative and iterative artefact design in multidisciplinary teams.

THE DESIGN AND DEVELOPMENT OF A PERSONAL LEARNING ENVIRONMENT: RESEARCHING THE LEARNING EXPERIENCE

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Education has its roots in age-old cultural traditions that have developed over centuries. It is likely that teaching and learning are based on patterns of behaviour that have been shaped over centuries. To move away from a teaching room bounded by doors and walls with a teacher standing at the front to an open and undefined virtual environment has major consequences for education. Even though informal learning and the freedom of self-directed learning outside educational institutions is well documented, it is only recently that attempts have been made to leave the traditional class room behind altogether; initially in the 1970s through the radical perspectives of Freire and Illich, and in the past decade under the influence of developing technologies. Learning technologists, teachers and learners have started to question the effectiveness of the teaching strategies developed over generations.

Freire advocated an approach that puts the individual's real life situation at the centre. Illich promoted a similar approach through his community webs and saw institutionalised learning as problematic. He suggested that most people learn what they know and value outside of the educational structures. Peters highlighted that the space in which we teach and learn defines our approaches to the teaching and learning process. He argued that traditional teaching spaces are not value neutral: '*each place in the experienced space has its meaning for the person. The space does not exist without the person experiencing it.*' '*The people in the space are at different distances to one another*' and this has an effect on the quality of the interactions. '*The learning environment interacts with the learners and tutor*' (Peters, 1999, p. 9).

Over the past five years the proliferation of new interactive social media has influenced the development of online learning environments. The Virtual Learning Environment (VLE) has come to maturity, but has been seen by educational technologists as not capturing the spirit and possibilities that the new media have to offer to enhance the learning process. They are controlled by educational institutions and are subsequently used to support institutional learning.

How responsive are VLEs to the fact that each learner is unique and will have a unique learning experience? Not very; they have been described as systems in aid of institutional effectiveness, rather than tools to enhance learners' experiences. Research and development of a different type of learning environment, the Personal Learning environment (PLE) has gained momentum. The PLE is seen to be under the control of the learner as the requirements and experiences of each learner will be different. This makes the planning and development of a PLE that serves as aid to each possible learner a challenge. Worldwide, several projects are currently developing and researching PLEs.

This research paper will analyse what is required to create a PLE that fosters meaningful learning experiences. It will discuss the learning theories behind such an environment, a model of PLE based learning, and how educational challenges in a learning environment without a tutor, such as a lack of learner autonomy and capabilities required to thrive in a PLE, can be approached. Finally it will highlight several factors that influence the quality of the learning experience and subsequently of the learning outcomes.

MATHEMATICAL INTIMACY WITHIN BLENDED AND FACE-TO-FACE LEARNING ENVIRONMENTS

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While comparative assessments of students' performances in blended and face-to-face environments are essential, the authors of this paper analyze students' mathematical intimacy and flow experiences, as well as their confidence and perseverance while learning mathematics in two different settings. Are students more engaged in problem solving, more inclined to experience joy, excitement and affection, more confident, and more persistent while doing mathematics in blended or in traditional learning environments? The authors of this paper aim to answer the question from the perspective of using MyMathLab, a Pearson based online course, within a blended teaching and learning environment for Algebra and Trigonometry, a large first year university mathematics course. This paper aims to analyze and interpret students' mathematical intimacy, confidence and perseverance in these two different learning environments.

MyMathLab is an online course designed by Pearson Education Canada for its Algebra and Trigonometry textbook. MyMathLab is built on the MathXL platform, Pearson's online homework and assessment system and is accessed via CourseCompass, the Pearson online learning environment. MyMathLab offers instructors and students a remarkable selection of course materials that range from a large database of exercises to multimedia resources, such as video lectures, animations, and an electronic version of the textbook. Practice exercises regenerate automatically and indefinitely, thus offering students the opportunity to rehearse each math problem. To aid comprehension of mathematics concepts students can use the interactive solution guide and worked examples accompanying each exercise in the database. Students receive instant feedback upon solving each exercise.

Data from 108 students were included in the analyses. Early in the semester, students in both groups (lecture-only and blended format) completed a 64-item survey assessing several constructs related to affect and flow in mathematics. Some items of the survey used in the confidence, enjoyment and interest factors were adapted from the research work of Galbraith and Haines (1998), Tapia and Marsh (2004) and Cretchley (2008). For the purposes of this study, only those items assessing mathematical intimacy, confidence, persistence and flow were used. The intimacy construct was operationalized using items that asked students about feelings they have when doing mathematics. The items were in 4-point Likert format (strongly disagree, disagree, agree or strongly agree), and were subsequently dichotomized (disagree or agree) for analyses. Flow was assessed using a nine-item scale similar to the Short Flow Scale (Jackson, Martin & Eklund, 2008). Each item, taken from the Dispositional Flow Scale-2 (Jackson & Eklund, 2004), assessed one of the nine dimensions of the flow construct (Csikzsentmihalyi, 1990) using a 5 point Likert format; items were summed to establish a total flow score.

In this study, students in a blended learning environment responded to two sets of items assessing mathematical intimacy, confidence, persistence and flow. The first set of items asked about mathematics in general; the second asked students about these constructs in the context of MyMathLab. The mathematical intimacy factor structure from survey one was imposed upon the data for the students in the blended classroom, and a multi-group analysis performed. The imposed factor structure fit the data well under both conditions of equal means and unequal variances, and unequal means and equal variances. The results of the multi-group analysis suggested that students in the blended classroom had slightly lower intimacy scores for their MyMathLab experiences than for mathematics in general, but the differences were not statistically detectable. However, the variance of the mathematical intimacy factor was larger for their MyMathLab experiences than for mathematics in general. Slightly lower mathematical intimacy scores for many students in the MyMathLab framework might interpreted as a result of their inability of creating a close bond and in experiencing joy and excitement in doing mathematics in the brief period of time when they were solving math online. Mathematical intimacy may foster the appearance of positive outcomes, such as confidence and perseverance (DeBellis, 1998). As such, for many students in the blended class, lower scores of mathematical intimacy translate into a decreased enjoyment and sense of well being that subsequently leads to poorer confidence, and thus slightly lowered confidence scores. It came as a surprise that even if mathematical intimacy scores were comparable in the blended and lecture-format settings with respect to general math, there was a substantial statistical difference in flow scores, as the students in the blended classroom reported lower flow scores in general math than those in the lecture only class setting.

eLITIGIS: ROLE PLAY AND COLLABORATIVE LEARNING THROUGH WEB 2.0

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Introduction

The experience we describe was born of the need to provide methodologies for developing skill-sets in the area of law through virtual learning environments, that is, the UOC campus. The UOC teaching method, which focuses on the activities that students engage in to learn, makes intensive use of technology and is entirely developed in a virtual fashion. Within this context, the experiment we conducted considers the design of a methodology especially conceived to achieve specific skill-sets: teamwork and leadership, exercised by implementing simulated legal proceedings. An area with a series of technological tools was designed and case-studies and learning guides were prepared. We assessed both the students' achievement of learning objectives and the achievement of the experiment objectives, based on the opinions of the students (online survey) and teachers involved (interview). The results, as described in this article, show that the methodology created and implemented in the area of law studies has a decisive effect on the students' motivation and satisfaction but also reveals – in the teachers' case – an excessive workload if we want to attain adequate follow-up of the teaching and learning process. As a whole, it led us to reflect on the feasibility of generalising experiments as gratifying as eLitigis. The initiative came from the UOC Civil Law professor, Mònica Vilasau.

Description

An interdisciplinary working group of teachers, IT specialists and methodologists was created to develop this project. The teachers identified the instrumental skills to be worked on (leadership and teamwork) and the subject-specific skills. We think that a skill is a complex knowledge that is always under construction (Lassnier en Zabala y Arnau, 2007; Le Boterf, 2000). Based on the idea of developing an activity which would reproduce the logic followed in the course of a legal dispute, an activity was designed for the students to develop, where the premise was the need to work together as a group and develop a well-defined role within legal proceedings. Each class group was to resolve a different case by organising themselves into 3 sub-groups, each of which was to take on the role of plaintiff, defendant or judge (to draft the claim, the rebuttal, or hand down the judgment).They had specific working instructions giving solid guidelines for action and were provided with various resources. The tutors supervised all the work and the dynamics of each group. To implement this activity in a virtual learning environment, a specific space was designed in the classroom, based on an open-code software wiki. This tool had two components: the technical design of the instrument and the design of the interface to make it usable and integrate it within the virtual campus

Results

The results of the project were also assessed: *Satisfaction of all the agents involved and workload*: These new educational methods have a positive impact on student motivation and satisfaction throughout what is an exceptionally arduous educational process, but the results also an excessive workload if the development of the educational process is to be adequately followed-up. This leads us to reflect on the feasibility of generalising experiments as gratifying as eLitigis; *Collaborative work*: students appreciated it, although the method detracts from the flexibility of the model. Generally speaking, students learned more and of a greater quality and were more motivated; *Specific skill-sets*: As regards the level of learning in this subject, the teaching staff considers that this was more complete, since it provides a more holistic perspective of the content, rather than a partial one. The students share this perception and feel more drawn to the real world of law. However, the marks obtained reveal that there was no substantial improvement. This leads to think that the design of the assessment model needs to be refined if it is unable to grasp the qualitative improvement that all the parties involved have expressed; *The methodology and tools used*: All those taking part state that the methodology implemented encourages more participation and greater integration between theory and practice. However, technical issues had to be solved mostly due to the lack of knowledge of some of the users; Feedback expressed by students, tutors and teaching staff has been extremely positive. Furthermore, there was one unexpected result: greater integration between theory and professional practice, allowing the students to see what it is like to exercise Law as a profession and use many of the skills which make up the professional profile of the Law Graduate.

PROMOTING THE CONCEPT OF COMPETENCY MAPS AND INTERPROFESSIONAL ASSESSMENTS LINKED TO E-PORTFOLIOS TO ENHANCE THE STUDENT LEARNING EXPERIENCE IN PREPARATION FOR WORK BASED LEARNING, EMPLOYABILITY AND LIFE LONG LEARNING

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Assessment and Learning in Practice Settings (ALPS) is a collaborative Centre for Excellence in Teaching and Learning (CETL) comprising five Higher Education Institutions (HEI) with proven reputations for excellence in learning and teaching in Health and Social Care (H&SC): the University of Bradford, the University of Huddersfield, the University of Leeds (lead site); Leeds Metropolitan University, and York St John University. There are 16 professions across the partnership from Audiology to Social Work, and a wide range of partners including NHS Yorkshire and the Humber and commercial partners who are working towards a framework of interprofessional assessment of common competences in the H&SC professions.

The focus of this paper is the development of the common competency maps for communication, teamwork, and ethical practice along with a set of standardised tools to assess these across the sixteen professional groups.

The aim of the ALPS CETL is to ensure that students graduating from courses in H&SC are fully equipped to perform confidently and competently at the start of their professional careers.

Fundamental to the care of service users within modern Health and Social Care are key skills commonly utilised by the range of professionals involved in ALPS. Key skills and learning outcomes vary across the 16 pre-registration H&SC courses but central to the practice of all of the professional groups represented by ALPS is a high level of professional competence in communication, teamwork and ethical practice. In order to make explicit this pretext it was decided that mapping these common skills would enable students to navigate their way through the professional competencies allowing them to gain confidence and competence in practice settings. ALPS worked with a commercial partner, MyKnowledgeMap Ltd. (MKM), to facilitate this process which resulted in interactive and creative competency maps from which multiprofessional assessment tools were derived for students to validate their skills in their practice placements. ALPS has developed a shared services platform that enables these common assessment tools to be delivered onto mobile devices used by the students in their practice placements.

Central to the ALPS process was the development of an e-portfolio tool to which the student could publish their completed tools and any relevent supporting documents and gain feedback from their tutor back at their University, further perpetuating the learning process and enabling the tutor to evaluate the students progress.

This paper discusses how these processes championed by ALPS can be transferred and shared across professions and describes the challenges, benefits and future potential of this approach aimed at enhancing the students ability to learn and produce effective assessments in practice settings.

IMPLEMENTATION OF WORK-BASED LEARNING APPROACH IN PARTNERSHIP OF UNIVERSITIES AND SMALL BUSINESS

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The trends in modern education are largely determined by the development of ICT. New technologies are used to ensure the accessibility, mobility and relevance of education received by students. These issues are certainly important, but they are only considered in the context of and as a result of the use of ICT. At the same time, in terms of the purpose of education, these factors are not paramount, but fulfilling an important support functions to deliver knowledge to students and to provide collaborative work. The student learns with goal to continue to use knowledge in one of economic activity field. Thus, the simple use of ICT did not provide the context in which this knowledge will be used. In this paper we consider the work-based-learning (WBL) in the context of cooperation between educational institutions and small businesses as a way to provide the context of education. We believe the WBL could provide for students 21st century skills such as innovation, collaboration, problem solving, and self-direction to help ensure success in the workplace.

One of the priorities of Russia's development strategy is the development of small and medium businesses, to turn it into the main driving force behind the modernization of the country. In this regard, the state is to ensure conditions for the preparation of highly skilled professionals. Given the nature of small business, we can say that now a small business loses the competition for the best professionals in the labor market. One solution to this problem for small business is the training and education of future employees from the first year at university. This will establish the required competencies of a graduated student and to include in the company's work simultaneously with study at the university. Students want to receive a qualitative education, to learn best world practices, to be demanded after graduation. Universities receive opportunity to include into curriculums tasks and collaborative activities directly related with WBL project business. Moreover universities can use the best practice and knowledge of students to improve learning materials.

Currently, a number of universities examining in Russia are using simulation modeling of business (training companies), the example of the basic business processes and to generate the skills of students. However, imitation is always a simplified model, and thus will lose the quality of learning in real work. The strong experience of WBL projects does not exist. We propose to consider the problem from the other side. Instead, WBL we consider learning-based working (LBW). This definition is more aptly describes the proposed approach. LBW propose that the main people activity is work and learning is an instrument to take a profession and to improve self own effectiveness.

Thus, we consider the process of engaging students in professional activities. In the first stage, the student is studying general professional disciplines and participates in ad hoc events held within the framework of LBW project. After passing the general education program, taking into account the rating and skills (based on e-portfolio) students are invited to the company, where they begin his professional activities. Employment responsibilities and tasks are put for the student in accordance with educational program of university, where he learns. This allows to save a systematic approach to teaching students, and to consolidate a theoretical knowledge in practice. At the same time, the tasks and problems (in the LBW projects) that require deeper knowledge, than education program provides, encourages students to search the knowledge and transfer them into practice and into the classroom. E-portfolio allows to take into account both theoretical knowledge and student achievement in their practical application, confirming the experience and professionalism. By the end of the educational program the student has confirmed the practice of professional knowledge and skills.

The LBW is a promising form of training in Russia. Strategy of modernization of the country aimed at improving the quality of education and small business development (including youth entrepreneurship). These factors are conducive to the successful introduction and development of LBW projects.

To sum it up we can say that LBW and WBL are prospect and efficiency approaches to raising education quality in Russia and other states. Trends of education development ensure the accessibility, mobility and relevance of education and mixing learning and working activity. In the 21st century successful work is not possible without learning, but learning means nothing without it further application in the real activity.

GREAT EXPECTATIONS – SMALL STEPS
CRITICAL FACTORS FOR INTEGRATING ICT IN HIGHER EDUCATION
ICT IN HIGHER EDUCATION IN NORWAY

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ICT (Information and Communication Technology) and the potential effects on increased student activity and learning have been met with great expectations. A large survey among Norwegian students and their teachers shows that the potential for ICT as a learning tool is poorly utilized. ICT are mostly used for non-academic information search, text-editing and administrative purposes. What are critical factors for a more fruitful integration of ICT? Integration of ICT seems to be most successful when based on both bottom-up and top-down initiatives. Age, both of students and academic staff seems to have small impact on use of ICT.

ICT as learning tool

ICT and new technology have been supposed to lead to more student activity. Such expectations of the great advantages of ICT for learning purposes have even increased since the concept of Web 2.0 became widespread. Tools like LMS (Learning Management Systems) and methods like the use of e-portfolios are expected to make the students work harder, communicate more with their lecturers and teachers and pass their exams at shorter time. Tools for communication and cooperation, like discussion forums, blogs and social networks are easily available and commonly used among students, not at least for leisure purposes. Such tools make it easy to generate and share content of all types, and could be used as powerful tools for learning as well.

Data

A large survey from 2008 among Norwegian students and academic staff (5500 students and 1000 lecturers and teachers from 40 different universities and university colleges) shows that there still is a unrealized potential to use ICT to enhance better learning and more student activity. Implementation of ICT seems to have been slower and less successful in (higher) education than in other contexts of communication and service.

Use of ICT

ICT are widely used among both academic staff and students, but are mostly used for information search, text-editing and administrative tasks. Tools for interaction and communication are not widely used among students for learning purposes. Neither are academic information sources, like academic journals and library services regularly used by students. Google and Wikipedia are the most common sources for information. Learning Management Systems (LMS) are widely used. However, investigating LMS-functions in use, the impression of an un-utilized potential is confirmed: LMSs are used mostly for disseminations of learning material and administrative tasks.

We know that tools for cooperation, production of digital material and sharing are widely used for leisure purposes. Norway has among the highest pr capita rates for Facebook members. Why do not students bring their leisure digital habits with them when studying?

Critical factors for integrating ICT as a learning tool

Surprisingly, age does not seem to have great effect on use of ICT as a learning tool. Neither younger students nor younger lecturers seem to be more *digital native* than their older fellows. What seems to be important is a combination of enthusiastic pioneers and support from management.

PROVIDING FRENCH UNIVERSITIES WITH A POWERFUL ENVIRONMENT TO SUPPORT E-LEARNING DEVELOPMENT

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Introduction

Generalisation and improvement of e-learning are a more and more challenging objective for all the educational institutions. A lot of questions of high importance remain to be solved, such as how to integrate the usual environment of a student within a pedagogical scenario, how to allow students and teachers to work easily and in a transparent way, from everywhere and at any time, how to design pedagogical pools.

A key aspect to be taken into account is to control the potential of media to ensure that they work for all. A first objective is to avoid the digital divide. It is also of first importance to testify the quality and the reliability of the digital contents. A second objective is then to provide the community of teachers and learners with labelled contents. It is ever a heavy and costly task to produce pertinent and attractive digital contents. Therefore it seems mandatory to encourage collaborative production and broad dissemination. Then, a third objective is to support mutualisation of all these activities. These three objectives are the keystone to create innovative systems for e-learning.

This paper describes how the actions initiated and supported by the Ministère de l'Enseignement Supérieur et de la Recherche (MESR) – via the service dedicated to ICT supported learning and teaching called SDTICE – enable and underpin e-learning development in higher education in France.

Context

82 universities, together with several "engineers schools" build the French panorama of higher education in France. 1.4 millions of students are studying a wide range of subjects (humanities, law, management, mathematics, chemistry, physics or health sciences) from bachelor's degree to PhD. The law Libertés et Responsabilités des Universités (08/10/2007) defines the autonomy of the universities, now in charge of the definition of their own digital strategy.

SDTICE supports initiatives to promote mutualisation between universities, according to their autonomy, by developing a structuring policy and the promotion of standards of interoperability. Its main actions address the following issues: infrastructures and e-services, mainly via the Université Numérique en Région (UNR), digital resources production and dissemination, via the Digital Thematic Universities (UNT), initial instruction and ongoing training required for a general usage of e-education.

Main actions

The structuring of universities in regional consortiums (UNR) is a key factor for mutualisation. The infrastructure and e-services are not only envisaged from an internal point-of-view but also with a more interoperable and collaborative perspective. For example, it allows development of identity federation and its on-going generalisation is a means to take into account nomadism of learners and teachers. Our first objective of avoiding the digital divide is now achieved.

The organisation in UNT guarantees the quality of the contents, at the difference with major international initiatives for open digital pedagogical libraries. Contents are collaboratively produced by universities – leading to a larger universality of the resulting resources – and independent specialists testify their scientific pertinence and reliability. Our second objective of designing shared and labelled digital contents, easy to access and to reuse is then on-going.

UNR and UNT are envisaged from a regional or national perspective. They facilitate collaborative works and support common and shared realizations. Our third objective of mutualisation is performed. They have now a maturity which makes them the cornerstones for e-learning development. They are basic and mandatory factors in the new technology environment to generalize digital pedagogy. Our objective is now to create an efficient and optimized learning system based on equipments, networks and pedagogical resources which are available in French universities.

HIGHER EDUCATION DISTANCE LEARNING IN PORTUGAL – STATE OF THE ART AND POLICY ISSUES

Abrar Hasan, Canada, Wolfram Laaser, Germany

Traditionally, Portuguese education culture is rooted in the face-to-face model of instruction. While Portuguese Higher Education Institutes (HEI) have a national character, they are by tradition more configured as regional/local entities that do not emphasise coverage of several regions or the nation as a whole in their activities. Portugal started an autonomous distance teaching university, the Universidade Aberta (UAb), in 1988. This was at least a decade late start compared to the development in the leading European countries, though arguably not later than some Southern European countries (e.g. Italy).

Currently, DL in Portugal covers only a small proportion of HE enrolment, roughly less than 3 per cent. Approximately 90% of these students are enrolled with the Universidade Aberta (UAb), while small offerings come from other Universities and Polytechnics.

The UAb has a student body of approximately 10,000 students, though the number has fluctuated around this number in recent years. Its programme offering remains narrowly focused on a few disciplines and a significant proportion of its programmes, approximately 30 per cent, is directed at Portuguese speaking students in former colonies.

Potentially, there are some 1.5 million Portuguese adults with upper secondary qualification who could benefit from lifelong learning opportunities. In addition there is an additional approximately one million population that has higher education qualification and could potentially benefit from qualification upgrading using the DL approach. Existing supply of places barely scratches this potential. Moreover, the scope of DL is not limited to non-traditional students. With the use of new technologies in DL, the scope can reach the wider group of traditional students, who can benefit from blended or mixed-model approaches that combines distance with face to face learning.

A variety of factors may be causing the potential demand to remain dormant. One factor may be the inefficiency of match between learner needs and what is available on offer. A better understanding of learner demand would be needed for designing DL programmes. Another constraint could be the inadequacy of information to participants on what is on offer. A third factor may be that what is available is not valued, either by the labour market or as a basis for furthering qualifications. Another factor may be that potential applicants may have difficulty in meeting eligibility requirements for access to DL courses, whether in terms of subject area or the ICT requirements for on-line interactive study. Available courses may be too expensive in terms of the value they bring. Finally, there may be institutional hurdles, such as age-limits, that limit access to some programmes or funding.

Policy recommendations are made to overcome theses hurdles. It is proposed to strengthen the role of UAb and to promote research and cooperation among the tertiary institutions engaged in distance learning. The full paper is based on a recent report given to the Portuguese Ministry of Science, Technology and Higher Education on "Reforming Higher Education Distance Learning in Portugal".

REACHING MILLIONS – DISTANCE LEARNING PROJECTS IN SOUTH ASIA

Stephen Jenner, British Council India, India

Context

India is changing today more rapidly than at any time in its history, economically and socially. Education, in particular provision and development of English language competence, is at the centre of this growth. Over 1 million graduates enter the job market each year, but barely 15% are 'employable'. The Indian government has prioritised employability skills as the most important development objective in the state and private education sectors. English, because of its unique place in Indian history, also impacts the social environment. 'Good' English is increasingly a pre-requisite for social inclusion and advancement, especially among the growing middle classes whose new spending power is exposing India to more western culture.

Distance learning initiatives

Against this background, British Council was approached by Microsoft India and Tata Sky to develop products that use different forms of technology (interactive TV and computers) to reach distance learners in very different contexts.

- 'Rozgar' is a computer-based skills-for-employability programme aimed at semi-rural youth with aspirations to secure employment in India's rapidly growing economy. The course is blended; 40 hours of computer content with an additional 40 hours face to face support, and includes and train the trainer programme. Rozgar uses a running narrative to situate the target language in realistic and meaningful contexts.

- 'Active English' is a television-based interactive course that offers Indian housewives the opportunity to brush up their language skills for use in everyday situations. The 300 lessons are based around topics suggested by the learners themselves: PTA meetings, social gatherings, visits to the mall, even ordering pizza on the phone all require a basic ability to communicate in English. The functional language course follows the fortunes of Kavita, a typical North Indian homemaker, as she gradually builds her confidence in speaking English through everyday interactions with a variety of characters in her neighbourhood.

The presentation will focus on the challenges, successes and learning points of both projects:

- Usability and access – the selection of learning technologies based on learner skills, access to media, programme aims

- Working with partners – the conflicts of academic/business priorities between the partners and how these were overcome

- Course design issues – different models of self-directed learning, with and without tutor support

- Learner profiling – meeting different needs of learners (professional and social), personalising the learner experience

The presentation aims to show how these two projects demanded very different, and flexible, approaches to course design and delivery based on the diversity of the target audience and the selected technologies. The finished products demonstrate how both low and high tech applications of technology can be utilised to meet the needs of distance learners in culturally specific situations.

CREANOVA – RESEARCHING NEW FORMS OF LEARNING IN PARTNERSHIP

Pat Gannon-Leary, Steve Farrier, University of Edinburgh, United Kingdom

Aims and outcomes

The aim of the CREANOVA project is to undertake research on specific conditions and factors which are present in creative learning environments and promote innovation. The outcomes will inform innovative competence acquisition in formal and informal learning contexts especially in the technological and creative sectors.

The CREANOVA partnership

CREANOVA is an educational research project which takes the form of a partnership or collaboration of European educational institutions in seven European countries, along with the concomitant challenges of partnership working. In investigating creative learning environments, CREANOVA is looking at new forms of learning, involving ICTs and virtual communities. In fact, the CREANOVA partners are a community in which much of the research and communication is conducted virtually. The CREANOVA partners are not just engaging in a virtual community of practice but also in a virtual community of learning. Therefore the partners are not only conducting the research but are, in effect, engaged in action research, experiencing a new form of learning for themselves.

Partnership and virtual communities of learning: success factors and challenges

In considering the issues surrounding partnership, the authors became aware of parallels with issues surrounding virtual communities of learning and further explored these parallels by critically examining key indicators or critical success factors of successful partnerships, along with potential challenges of such partnerships. From this exploration it became apparent that both opportunities and pitfalls exist in the context of partnership and that the success of a project like CREANOVA can rest on the willingness not only to share examples of good practice being developed but to share the challenges experienced, to place trust in partners and to maintain clear, open lines of communication.

Having critically examined success factors and challenges within a research project such as CREANOVA, the authors turn their attention to a consideration of success factors and challenges in respect of new forms of learning such as virtual communities, along the lines of the CREANOVA Moodle. The critical examination of communities of learning complements the critical examination of partnership and such an approach may be one way to look at the educational research: educational practice nexus.

Concluding remarks

The partners are at an early stage of CREANOVA but already have found that they are bridging the educational research and practice divide since the different cultural backgrounds and experiences of the partnership have led to an appreciation of the potential challenges faced at the start-up and development of new forms of learning such as virtual communities of learning. It is anticipated that the final outcome and deliverables of the project will enrich knowledge because of the lived-through nature of these challenges.

ENGAGING THE COMMUNITY IN MULTIDISCIPLINARY TEL RESEARCH: A CASE-STUDY FROM NETWORKING IN EUROPE

Anthony F. Camilleri, SCIENTER, Italy

The paper describes the efforts of the STELLAR network of excellence to establish a lasting stakeholder network, covering the breadth of TEL stakeholders in Europe. The efforts to do this are spread over a 40-month period, spread into three distinct, overlapping phases in which the consortium respectively connects with stakeholders to form a network, orchestrates the network, and contextualises it within the European and Global TEL communities.

The paper looks at theories expounded for successful stakeholder engagement and uses them to analyse the success of the efforts of the STELLAR network during its first year, while at the same time weighing the challenges the community-building activities will face as they continue forward.

USE OF COLLABORATIVE TOOLS FOR CREATING A NATIONAL MULTIGRADE TEACHER COMMUNITY

Andrea Kárpáti, Katalin Munkácsy, Eötvös Loránd University (ELTE), Hungary

Multigrade schools are small primary level institutions situated mostly in villages. They have a single learning space for pupils of different age groups. Research reported here is aimed at the improvement of the quality of *their* teaching and learning in their small, undivided classrooms through ICT-supported collaboration using Web 2.0 technologies among learners of different ages and grades and an interdisciplinary design of learning content. In the framework of UNESCO and OECD supported research projects on promoting equal rights to learning through collaborative ICT solutions, the ELTE team administered a national survey on professional goals, ICT competence, educational strategies and training needs of village school teachers. Based on capacity and needs analyses, a new, *networked learning model for in-service teacher education* was proposed to modernise sand thus preserve Multigrade education.

In this 4-year action research project reported here, a new form of in-service training called Mentored Innovation Model was used, supported by the MapIt Collaborative Knowledge Building Platform, a cognitive tool and Viddler, a Social Web application used for a multimedia annotation. We wanted to help save the Multigrade school, but without educational romanticism that conserves an outdated model in a decaying environment – we planned for collaboration and discussion. The team of teachers, researchers and software developers elaborated the Interdisciplinary Multigrade Curriculum and related teaching aids in the course of a 3-year experiment involving 22 primary schools and their village communities. Working with Web 2.0 technologies resulted in the improvement of educational strategies and professional self esteem of teachers, and increased learning attainment, motivation and creativity of their pupils, and, ultimately, in the creation of a new, web-based knowledge building community. Traditional (dialogical) training models assign researchers and trainers the role of sole knowledge providers. Teachers are supposed to acquire and (slightly) adapt an elaborate set of educational methods and content. The *Mentored Innovation Model (MIM)* works the other way around: trainers invite practicing teachers (now trainees) to identify teaching problems and training needs. Coaching is provided while collaborating on a boundary object: an innovative educational program. Based on the principles of Trialogical Learning Theory, this new model for in-service courses empowers teachers to take ownership of their teaching problems through the use of social computing applications. While the traditional, dialogical collaboration model is linear; MIM has a spiral structure where cycles of exploration, learning and creation of new knowledge are iterated on higher levels. MIM is *integrated in school practice:* teachers and researchers / trainers are equal partners who develop shared knowledge suited to their educational practices, each of which requires different approaches. Differences of monological, dialogical and trialogical models of knowledge creation are shown below:

Activities of Training	Monological model for training	Dialogical model for training	Trialogical model for training
Problems are identified and elaborated ...	... separately by individual teachers and researchers	... by teams of teachers and teams of and researchers working separately	... by teams including both teachers and researchers
Research and development agenda are...	... identified by the individual in response to needs on the job or personal improvement plan	identified by researchers who invite teachers to realise a program designed by the research team	... shared objects of activity (innovative teaching practices / tools) that are identified and developed in the *mentored innovation* process
Supporting structures: (mentoring)	help sought individually (use of textbooks and web based information services)	mentoring is provided by researchers and training experts (*mentoring*)	mentoring is provided on demand, during the innovation process (*mentored innovation*)
Cognitive tools employed during training ...	... promote one's own professional development process	... promote understanding of researcher's innovative methods / content	... promote scaffolding through structuring inquirers' activities for complex problem solving
Innovative teaching practice is …	... realised voluntarily	... not part of the training process but is expected to happen after the course	... essential part of the training course: *design based research* through school experiments in several iterations
Dissemination is	... realised voluntarily	... encouraged through competitions	... realised on *local and national level.*. Both teachers and researchers act as innovators and mentors for novice to the program teachers.

Acknowledgements

LEARNING MANAGEMENT PRINCIPLES: INTEGRATING TECHNOLOGY AND PEDAGOGY THROUGH A MULTIDIMENSIONAL APPROACH TO FACULTY DEVELOPMENT

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Introduction

The paper presents a faculty development program built around the concept of 'learning management principles' which reflect the multidimensional nature of the work of the teacher in the classroom. At the end of the program faculty members participating in the program are expected to emulate an increased amount of research-based best practices with the purpose of achieving the learning management principles.

A Multidimensional Approach to Teaching and Learning

In the learning sciences, the need for analytic tools that integrate various levels of analysis have become greater with the new advances in the use of technologies and pedagogies that allow students to collaborate, problem-solve, and interact in different ways with the technology, among themselves and with the teacher. From a traditional instructional approach where the learner was a passive recipient of content, to a shift to active learning environments where learners interact, construct, problem-solve, project-solve, and, more recently, to learning environments where learners collaborate in the building of knowledge, the shift in the study of teaching and learning is towards increasing engagement of the learner in the learning process. The increased use of computers supports this emphasis by making possible new forms of interaction and collaboration, opening an almost unexplored space of possibilities for teaching and learning. In the past, one-dimensional approaches generated instruction that was fragmented and did not correspond to the many interactions involved in real-life tasks. Therefore they have been supplanted for more integrated approaches to instructional design (Gagné & Merril, 1990; Van Merriënboer & Kester, 2000, 2005). Yet, even more complex approaches lack the ability to integrate collaboration which is one of the main components of recent pedagogical approaches (Van Merriënboer & Kester, 2000, 2005), nor dos they consider the need for real-world tasks that characterize the new pedagogical metaphor of learning as knowledge building. Faculty members require a more coherent framework to guide their work and increasingly complex tasks.

The Learning Management Principles Framework

We have developed a multidimensional framework for faculty development composed of learning management principles. Examples of these principles are: usability, problem solving, scaffolding, collaboration, etc. The principles were developed by using cognitive work analysis (CWA) to map the work of the teacher in the classroom. CWA is a methodology for the design of complex man-machine systems that integrates the psychological aspects of design with the technological aspects of it (Rassmussen et al., 1994; Sanderson, 1998; Vicente, 1999). The fundamental concern of CWA is to invoke behavioural sequences that will lead to effective actions and adaptation by actors within a system. These sequences are determined by properties of the context, the task at hand, the different ways in which the task can be done, and the properties of the agent that carry the activity, the social and organizational roles prescribed, and the individual competencies. The cognitive modeling of all these factors is accomplished in CWA through five interrelated phases of cognitive modeling (Vicente, 1999): modeling the work domain, modeling the activities, modeling the decision-making strategies, modeling the social organization and modeling the competencies of the agents involved. The last phase, in our case, results in a set of learning management principles, or standards of competency to be expected of excellent performers. These principles respond to the various dimensions of the teacher's work – the paradigmatic, quality, pedagogical, instructional, content, cognitive, and learning object dimensions which were defined through the modeling of the work domain. Each group of principles helps organize the best practices associated with each dimension. Together, they afford the teacher a comprehensive framework to organize and implement research-based best practices. Faculty members of various levels of expertise have embraced the approach in its various implementations – 17 universities and about 5,000 faculty members have participated. The program has three components: a) A self-paced interactive web-based 40 hour course which organizes technological and pedagogical research-based best practices around a collection of 'learning management principles', b) an internet-based best practice self-assessment test, and c) a social networking platform for communication between participants and a team of facilitators. At the end of the program participants are expected to emulate an increased amount of research-based best practices and its associated learning management principles.

STRATEGIES OF IMPLEMENTING SUSTAINABLE CHANGES: COMPARATIVE ANALYSES OF STAFF DEVELOPMENT PROCEDURES AT GERMAN AND SPANISH UNIVERSITIES

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This paper provides an overview of staff development policies carried out in two country scenarios: Spain and Germany universities. We analyzed staff development strategies of each country and considered different approaches and relate them to general characteristics of the educational system. We rather wanted to reflect current practices at universities with a different cultural background but furthermore we tried to outline an analytical framework for future analyzes. We gathered information from different sources. In the case of Spain it was consulted a project supported by the Spanish State Bureau of Universities and Research: Analysis of the Training and Support for Innovation Initiatives in Spanish Universities to Promote European Convergence Process. Available at: www.redu.um.es/eees/ and a research project conducted by the FODIP research group of the University of Barcelona: Analysis and proposals of staff competences needed to develop student's meaningful learning through e-Learning and B-Learning approaches in the European Higher Education Area (EHEA). For Germany we have relied on a summary of initiatives from the European E-Competence Initiative.

The aim of this work was to identify staff e-competences needed to settle in the changing environment fostered by the (EHEA) and propose strategies that can fit to implement sustainable changes. As it is known, the EHEA demands a flexible and centered student learning approach and teaching innovation processes driven by the Information and Communication Technologies (ICT). In that sense e-learning is becoming a major force for innovating teaching and learning at universities on a much larger scale. Many e-learning projects have demonstrated the value of educational technology to improve learning and to introduce new ways of self-directed or cooperative learning with problem, cases or projects. The sustainable implementation of e-learning innovations, however, often has proved to be more difficult than expected. Many projects remain short-dated and do not reach a wider acceptance or broader impact on the work of faculty at large in most cases for the lack on e-competences. On the other hand, universities increasingly are confronted with students that simply expect internet based services along the study-lifecycle: They want to apply electronically for courses; they want to have access to their learning materials and literature digitally etc.

Several reports from the Swiss Center for Innovations in Learning (SCIL), of the University of St. Gallen, have analyzed the success factors for the sustainable implementation of e-learning in higher education. The SCIL model identifies five major areas to develop sustainable implementation of eLearning: pedagogy as the core of the process, culture, organization, resources and technology. But the teachers and their competences play a key role in this process. Teachers can be perceived as gate keepers in the process of disseminating e-learning innovations in educational institutions. So, if the role of staff development programmes is to enhance the quality of teaching and learning within an educational institution, the way in which this effort can be sustainable depends on the appropriate strategies carried out considering institutional and human factors.

We argue that professional development programs cannot be seen as punctual activities related to pedagogy or technology; neither can it be viewed learners as homogenous entities regardless of the context in which they will perform their practice. A professional development program defined by the use of ICT should take into account the institution infrastructures; the diversity of teaching scenarios (in which staff will perform their practice); the learner's abilities, knowledge and technological skills and the efficient utilisation of resources.

NEW PERSPECTIVES FOR ICALL IN BLENDED LANGUAGE LEARNING

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The motivation behind this work[1] comes from the lack of impact that Computer Assisted Language Learning (henceforth CALL) and Intelligent CALL (henceforth ICALL) software has had in mainstream language teaching centres and academies. The authors of this article argue that the reasons are twofold: firstly, the technological dimension, although limited, is still further advanced that the linguistic and pedagogical dimensions; and secondly, whatever software is available is not tightly integrated into the larger classroom context. A major alternative to the much criticized structural syllabus has been the notional-functional syllabus, whose main feature is that it is very pragmatically oriented. This has been instantiated in the new European standard-to-be, the Common European Framework of Reference for Languages: Learning, Teaching, Assessment (henceforth CEFR). However, this framework has been criticized for its lack of terminology and linguistic theory. Hence, the authors here argue that Systemic-Functional Linguistics contains the necessary elements for the development of a discourse model that can account for interpersonal negotiation and, hence serve as a basis for a communicative course specification. Furthermore, the psychopedagogical dimension needs to be considered: given the importance of Constructivism and its coherence with the CEFR's underlying psychopedagogic philosophy, the authors of this article claim that any course or syllabus developed from the CEFR should accentuate constructivist principles avoiding passive knowledge transfer. Recent advances in ICALL and previous work undertaken by the authors (see below) have demonstrated that aspects of expert human language teaching can be heuristically reproduced, thereby supporting the potential of this field. Hence, the research hypothesis presented here is that there is now sufficient progress in ICALL to enable the integration of the linguistic and psychopedagogical dimensions presented to form a new type of online intelligent English teaching/learning system that would effectively complement face-to-face classroom activities, thereby accelerating and consolidating the overall language learning process. The authors are currently testing this hypothesis by designing and developing a new online ICALL system.

ESPACE PLURIEL: ACCOMODATING LANGUAGE LEARNING PROCESSES WITH TECHNOLOGY

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Establishing habits to support lifelong learning practices is particularly important in the study of foreign languages. New models of learning in this field need to integrate the development of skills in autonomous learning, such as diagnosis of strengths and weaknesses, identifying learning objectives, self-evaluating of needs and progress, as well as the difficult task of documenting one's abilities. E-learning technologies can be called upon to ease the process of discovering and meeting the requirements of these lifelong learning strategies, as well as other more specific cognitive tools, as shown in a large-scale experiment conducted at the University of Lausanne. The model presented here rests on the availability of a Personal Learning Environment (PLE), designed to support students in their preparation for autonomy.

Espace PlurieL, a digital environment to support learners' autonomy

The Espace PlurieL happens to be the last-born embodiment of a pedagogical stance that was elaborated at the Centre before the turn of the century. Previous versions were early and pioneering attempts to come to terms with the complexity of the transformation needed in both teachers and students habits. Firstly, an all-paper-and-language lab type of setting was put into place, requiring from teachers to move from mainstream classroom teaching supplemented by exercises lists in the language lab to a more complex set of roles: classroom teachers, individual learning advisers, promoters of autonomy in learning, technical help in the now individual access to the language lab resources. As soon as more versatile technology became available, both the direction of the Centre and of the University took up the challenge of financing a large-scale experiment aiming at integrating all the elements of the approach in an online environment providing support for both individual and group learning activities and facilitating access to the material of the multimedia room.

New learning environment, new roles, new skills

The way courses are structured at the Language Centre of the Université de Lausanne implies for teachers to have multiple identities cumulating a more traditional teacher-centred approach when they meet their students in the classroom, with an individual mentoring role when they follow students, both virtually through the Espace PlurieL or in face-to-face situations in the multimedia centre. New competences and visions were to be acquired for teachers to become students' mentors and help them on their journey towards autonomous learning. As far as students are concerned, the environment gathers all information, documents and activities that correspond to their profile in one unique workplace. They have access to their language portfolio with tutor support, to group activities specially designed for their level and different language learning tools. By gathering all the tools in one interface, students do not need to interrupt their learning flow. Furthermore, by being learner-centred, the environment fosters autonomous learning, giving all tools necessary to take control of one's learning. Self-analysing, determining one's learning priorities, setting learning goals and finding out learning activities to reach specific learning outcome remain the core processes supported by the learning environment, as they were in previous attempts, since they form the backbone of the Centre's pedagogical approach.

Mobile or not mobile?

Surfing on the so-far encouraging reception of the environment, learning technologists find themselves faced with a number of choices and opportunities. A natural extension of the existing interface would lead to a higher level of customization, allowing students to integrate their own choice of widgets. In a near future, we might see users of the environment enrich their workspace with their preferred dictionaries and news feed or sharing recorded TV programs. Students might also want to reorganize the interface according to their own learning process, being helped in this by a self-analysis tool. There is still a long way to go on the road of personalization, namely in understanding precisely how people learn with technology – in particular mobile devices – if we really want it to foster autonomous learning. But currently, the barriers to interoperability set by mobile devices suppliers and their strategy to keep customers *de facto* captives makes it almost impossible to provide all types of devices with similar functionalities at a reasonable cost.

TOWARDS A METHODOLOGY OF LANGUAGE LEARNING IN 3D ENVIRONMENTS

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3D environments have been used as an educational technology for some years. Recent literature in the field endorses 3D environments as a particularly appropriate platform for the development of oral language proficiency in distance education, collaborative and intercultural learning contexts and vocational training. Still, a methodology for teaching and learning in 3D environments is not yet mainstream in education. Consequently, evaluation criteria are missing. Additionally theoretical considerations that consider the mediatic turn connected with the introduction of 3D environments into language learning contexts are required.

This paper suggests a teaching and learning methodology and a corresponding evaluation methodology for computer assisted language learning (CALL) in 3D environments. The methodologies are developed in the AVALON project which is funded by the EU Life Long Learning Programme.

To develop the required teaching and learning methodology for 3D environments, an action research method is applied. According to the research method, a series of courses is offered. To test the courses, a virtual location in Second Life ("AVALON Learning") is created. In designing the learning scenarios and tasks for the AVALON project, special attention was placed on communicative language learning which is enhanced by the virtual environment. Tasks were created which foster the creation of community and the sharing of knowledge; explore identity and cultural perceptions of self and the other; involve collecting artefacts or building; encourage artistic expression or representation; and use Second Life as a source of information and as a place of navigation and movement. Each course was evaluated. The results are applied by adopting the course design.

Task design needs special consideration while designing 3D learning environments. We consider a task a leaner group activity which makes use of the affordances of the specific learning context in the pursuit of a specific learning goal. The outcome of the tasks will vary according to the variables that come into play each time. The tasks used in AVALON are of two types: tasks for language learning within a closed community and tasks which create links between a specific language learner community and Second Life as a broader world.

To develop an evaluation methodology, a sequential explanatory mixed method design is used to develop the evaluation criteria and for the evaluation itself. Teachers with experience in 3D environments where surveyed to develop the evaluation criteria. General criteria are usability, learner satisfaction and communication. Based on these criteria, quantitative questionnaires for pre and post course surveys and qualitative interview guides for post course interviews with teachers and learners are developed and applied. In the evaluation, all of the participants reported technical problems. Only 50% felt comfortable with their avatar after the second session. Still, 70% agreed that speaking through an Avatar made it easier to overcome inhibitions, while more than 40% missed gestures and mimic. Nearly all of the participants said that avatars made the learning situation feel more real, and that say had enough possibilities to speak the target language. Despite the technical issues, more than 80% of the participants said that SL is an appropriate environment for learning and that they would attend a course like this again.

IMPACT OF INFORMATION AND COMMUNICATION TECHNOLOGIES TO THE LANGUAGE CHANGES AND THE CREATION OF NEW LANGUAGE FORM: "NETSPEAK"

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Introduction

New communication technology provides excellent coverage of education in all areas of the world. To standardize the communication within a nation has been arranged a formal type of communication. However, by the development of new technologies, the formal communication - particularly in education and relationships among students – gets an informal note. Because of the technological progress, and human alienation caused by technology development there are created a new kinds of communication through some new media. An increasing number of social networks across the Internet (Facebook, MySpace, Flickr, Twitter, ...) created some new forms of communication that are every day more and more accepted by users.

Today, the educational institutions, and students themselves have different views on social networks. They use them in order to get additional information about their students, colleagues, and some news regarding the study. Social networking has resulted in a lack of information security, privacy, and ultimately created some new ones, now nonexistent, linguistic forms. Generating online content by users and making all kinds of social networks has led to making it a "new generation" (Web 2.0). Phenomena such as YouTube and MySpace are a hint in which direction is Internet about to move, or how it would have an impact on everyday life. Precisely because of that it is necessary to implement better control to the process of some new language forms creation that is taking the primacy of communication, even to the extent when users stop to distinguish the difference between formal and informal communication, especially when using these new unstandardized language forms. There are several types of new language forms, but certainly the most interesting use of the entire new language is popularly called "Netspeak".

Methodology

For this paper we proposed a research based on changes made by social web and technology transform among culture and behaviour of Zagreb School of Economics and Management students during 1st and 7th semester of study. In this paper we were particularly interested in how the students use the standard written language in communication (the formal and informal one) by means of new technology, also the attitude towards the use of diacritical marks that we believe are omitted and recorded by the standard rules of English language, the attitude towards the use of so-called emoticons (a word made by two words emotion and icons) – the universal symbol for a particular mood, all in order to shorten the time for communication and finally, the use of abbreviations and acronyms.

Conclusion

In this time of universal technology development, digitalization and virtualization, literacy takes on new aspects, new style. In addition to the existing functional styles of the standard written Croatian, such as scientific, administrative and business, journalistic and conversational style seems to be dangerously approaching the introduction of new Internet style that may result from the latest, but goes beyond it by establishing their own new rules. Conversational style, as it is known, is the everyday style (mostly verbal) communication. In a written account appears in the records, letters and notes with its well known features: extempore, informality, ease and simplicity. More than other styles, it has conditioned with the specific way of thinking. Therefore, it is full with expressive and emotionally coloured expressions. It has its own forms, which are reflected in the phonetics and in the grammar and in the vocabulary. Since it is spontaneous, it is much less susceptible to the norms of standard language. Natural and spontaneous. And there the similarities with the conversational style stop and start the ramification, reshuffling rearranging and erosion by Internet-style grammar. The new style is telegraphic, such as the Internet is and coded rule applies to no rules.

CULTURAL ADAPTATION OF LEARNING CONTENT

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Rationale of cultural adaptation

The market of learning products and services is getting increasingly global by its nature. In particular, using new Internet-based services we can reach global audiences by different digital learning contents. However, we see at the same time the need to tailor learning content for various local audiences. Cultural adaptation and tailoring of the learning content will make it more attractive to various local audiences.

Although cultural differences between different countries are important to consider, the cultural differences do not follow only the differences between national cultures, as many of the differences (such as those between generations) can be present within the same national or organisational culture. Thus it is important also to consider – in addition to the national cultures – different professional, organisational and generational cultures.

The process to adapt learning content

The cultural adaptation of learning content must be seen as a process. The process of cultural adaptation (this approach was developed and elaborated jointly with Mr. Walt Winkler during our teaching work on several training courses on internationalising training) of the learning content can be described as a path from existing core material towards adapted content. Thus the core learning content must be first "purified" from its original context (this step is called "de-contextualisation") and embedded to the local environment adding local cultural flavour and local elements (this step is called "re-contextualisation"). It is essential to admit that all learning content carries cultural bias, as it is very difficult to produce culturally neutral learning material content without losing much of the required level of detail.

The task of de-contextualization is meant to identify from the core learning content such elements, which carry a cultural bias. This part of the process requires an input analysis and thus we must determine the types of knowledge (both implicit and explicit) assumed in the core content; we need also to determine the level of skills assumed by the learners, as the learners might vary in their knowledge and skills across cultures. In this part of the process, we also undertake a context analysis, during which we identify the cultural symbols (e.g. national, professional, organizational symbols) used in the core content and specify the learning needs assessment the core learning content is based upon.

The task of re-contextualization is meant to tailor culturally the core learning content to the various local conditions. In the de-contextualization the purpose was to "purify" the core content from its cultural "burdens"– in the re-contextualization the task is to tailor the core content to suit the various local conditions, cultures and specific conditions. This part of the process requires an input re-evaluation and thus we must determine the key areas of cultural differences between the core content and the new operating environment (e.g. by aspects of national, professional and organisational cultures). By context modification, we define the cultural changes and alterations required for the culturally adapted core content and define important cultural approaches to be included into the localised core content.

Undertaking a clear process of de-contextualisation and re-contextualisation, we can determine and undertake the actual cultural adaptation procedures. For consistency for cultural adaptation, it is recommendable to author clear guidelines for cultural adaptation (e.g. house-style manuals for cultural transfer of learning materials).

The opportunities for global and international markets for learning materials can be widened by providing an appropriate mechanism for the localisation of the learning content to various local environments. If wider international use is anticipated, this aspect should be taken into consideration already during the design phase of the learning materials. It should also be acknowledged that localisation includes much more than translation to another language. Provision of sustainable strategies and methods for digital learning material adaptation offers also new opportunities for the work of various digital learning material providers.

GENDER AND DIGITAL DIVIDE IN DEPARTMENTS OF EDUCATION IN GREECE

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The Departments of Education of Universities have a great responsibility to prepare future teachers to meet the digital challenges of their profession.

All over the world in the field of education female teachers exceed in number their male counterpart at preschool and primary educational level. At the same time ICT gender disparities are acknowledged all over the world forming the well-known phenomenon of gender digital divide. If the gender digital divide persists among future teachers, then the majority of primary school-classes, having a female primary teacher, are expected to start their ICT familiarisation, having a comparative disadvantage.

The "gender digital divide" refers to the gap in the access rates between males and females. An overview of research published in the last 20 years draws to the conclusion that females are at a disadvantage relative to men when learning about computers or learning other material with the aid of computer-assisted software.

There exits in the literature a vast number of works attempting to explain the presence of gender digital divide. The most important reasons repeatedly appearing are: computer anxiety, competitiveness, socio-cultural customs, gendered patterns of ICT use, the influence of mass media, gendered ethics and others. This study investigates how students in departments of education might be affected by digital divide issues.

Survey data were collected from 1,575 male and female students of all the Departments of Education of Greek universities in 2008. A questionnaire, especially designed for the purposes of this study, was addressed to the students along the following axes: (a) the level of familiarisation with some classical ICT applications (Word, Excel, PowerPoint, Internet, e-mail) (b) the role that computer plays in students' life and (c) what kind of uses are of priority to them. The results were analysed by gender.

Students of the departments of education in Greek universities appear to be familiarised with typical ICT applications. Computers and the internet are tools that have been incorporated in their academic, educational and social life. However the presence of gender digital divide differentiates the use of computer implying gender differences in stances and attitudes for ICT. Men seem more familiar with the Internet and the e-mail and enjoy playing games with computers much more than women. Future female teachers seem to consider the computer a prerequisite that helps them to meet their duty.

The results are in accordance with other studies referring to the gender digital divide in various groups of young people.

BLENDED LEARNING APPROACH FOR ARCHITECTURE AND ARTS

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CCRE is an open project that aims to hold the interest of different people and research coming from various institutions and fields of study. The work is focused on using Digital Media Technologies on the web for collaborative work and for communicating public spaces, as well as any proposed design for them. Its website constitutes the main medium where all these different collaborative studies take place and we have been exploring the potential of using this platform for learning in Architecture and want to extend it to Art and Design courses.

This paper is the result of a case study conducted in the Faculty of Architecture of Porto University (FAUP) of a blended learning approach integrating the Centre for Spatial Communication and Representation (CCRE) website (http://web.ccre.arq.up.pt) for teaching CAAD (2nd semester of the 3rd year). The paper begins with a short theoretical framework and then describes the objectives of this case study, strategy and model that were applied for teaching and the type of digital material and learning tools that were used. Finally the most significant results are discussed and a set of conclusions drawn.

The results, besides other things, highlighted that the learning process that rises from the creative use of an open collaborative platform as CCRE with a blended learning approach strengthens the teacher's capacity to work as a team and helps to open the university to its city and people. In fact, it was particularly noted that this technology worked as a real catalyst for approaching the students and teachers towards the emergent problems of their city, public spaces and proposed design. Then, it was clear that it also helped to create a new teacher/student interaction, making communication much easier and giving the students a more active role in the learning process.

It was our intention to explore the collaborative platform in order to reach the following objectives:

- Allow asynchronous communication (individually or in group) between teacher and student beyond the classes' time. For this purpose the email was used.

- Create a place in the platform where each student would write an abstract about the group's work and his collaboration. For that purpose the Forum tool was used.

- Create a place within the platform encouraging the exchange of ideas and informal assessment of group works from students. For that purpose we employed the Forum tool, especially the one linked to each project. This allowed students to comment informally indicating which work they thought more interesting, and write what they thought to be important.

- Create an operator that could help the students and the public to navigate through the CCRE website. This was done using Ajuda.

The teaching context reflects an attitude in which process is as important as outcome. It promotes a heuristic design process based in approximation to solution, following a non standard path based on intuition, participation, permanent interrogation and intelligent processing featuring knowledge birth. Rather than a tool, integrated in networks, a CAAD course can be a creative environment pointing to collaborative design, promoting multi and inter-disciplinarly, stimulating the raise and exchange of ideas, increasing the autonomy and responsibility of the student in the learning process, setting CAAD as a heuristic learning approach itself. This means a heuristic learning approach that supports a heuristic design research.

It was important, besides other things, to know if the CCRE platform had, in fact, influenced positively the students learning process and if they had a positive opinion about its use in classes.

We also draw attention to the results obtained from the correlations between certain variables of student's responses to pedagogical inquiry, and for the final marks obtained by them. These results point out, besides other things, that the integration of this collaborative platform within the learning process of the course allowed us to achieve positive results. In fact, from these correlations we can gather that using the collaborative website CCRE had a positive influence on students.

DESCRIPTIONS OF INNOVATIVE PEDAGOGICAL PRACTICES USING TECHNOLOGY AS PERCEIVED BY ISRAELI EXPERTS: IMPLICATIONS FOR THE ARABIC-SPEAKING SECTOR

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Technology in Education

The inspiration for our study have been IEA studies on the impact of innovative pedagogic practices implementing technology on education and its potential to facilitate change in the school milieu. We examine definitions of pedagogic innovation implementing ICT and the implications within the Arabic-speaking sector. We attempt to reach understanding of unique meaning of technology-based pedagogic innovation in the Arabic-speaking sector in Israel as a significant component in fulfilling aspirations of improving learning experiences and outcomes.

Technology in the Diverse Israeli Education System

The introduction of computers in the Israeli education system began in the 1970s. However, only in the 1990s a more systematic effort was made to implement ICT in schools. These efforts were arranged in phases of the National Computerization Program. The first phase between years 1993-1998 was followed by additional phases: the second between years 1998-2003, the third between years 2003-2008 and the fourth taking place currently.

However, there seems to be a constant gap in ICT in schools between the Arabic-speaking sector and the Hebrew-speaking sector in Israel. In the Arabic speaking sector, computers were introduced only in the 1980s. Curricula were translated into Arabic and implemented in the early 1990s, and a new curriculum was developed in the field of computer literacy. Currently, there is still shortage in ICT materials in the Arabic language. Also, student/computer ratio calculated for the Arabic-speaking sector was almost twice as much as that of the Hebrew-speaking sector.

Methodology

This is the first phase of a three-phase study, focusing on definitions. Phase 2 focuses on in-depth analysis of innovative practices using technology, and phase 3 attempts to transfer successful practices to other Arabic-speaking schools. The methodology of the study is qualitative, drawing data from experts. The tool included semi-structured interviews. Altogether, six experts were interviewed: 3 from the Hebrew-speaking sector and 3 from the Arabic-speaking sector; two interviewees from the academia, the other 4 from the ministry of education. The interviews were recorded; consent was given in advance by all interviewees.

Findings and Discussion

The data presented manifold points of view regarding the definition of innovative practice using technology. In the Hebrew-speaking sector, definitions included reference to multimedia and communication to a greater degree than in the Arabic-speaking sector. In the Arabic-speaking experts reported these definitions are irrelevant, as the relatively traditional society which they represent does not tolerate these types of initiatives. However, the Arabic-speaking is not one made of one piece, and the definition of innovative pedagogic practices differs also within the sector. With regards to resources, experts from the academia in both sectors emphasize within school forces rather than budgeting issues. Supervisors from the Ministry of Education highlight the role of school leadership as a major characteristic of an initiative that may have the chance of changing teaching and learning. Regarding criteria for measuring success of innovative ICT-based initiatives, no differences were found between sectors. Experts mentioned transferability and scalability as the main criterion for success; however, success was measured by different means in each sector.

In the Hebrew-speaking sector measures include flexibility in the space and time in which learning occurs, and change in the curriculum and in teacher as well as student roles. In the Arabic-speaking sector, ICT is a means to make traditional education better. Change in pedagogic means and didactic tools are welcome; however, the defining characteristics of education, e.g. teacher as "sage on the stage", are cherished and remain untouched.

EDUCATIONAL VIDEOLINKS AS MR BENN IMMERSIONS

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Real-World Educational Videoconferencing

This paper is about linking everyday classrooms with situations in the real-world where pupils can speak with experts, learn something about real-world working experiences and see what they might become if they study hard and apply themselves to a particular profession. We consider videoconferencing to be a valuable tunneling device that allows us to move between a working classroom and a real-world environment, and we use the class curriculum as essential scaffolding for shaping the content of the link.

We make the case that successful educational videoconferencing comes as a result of a coordinated effort across four real-world environments:

- An Education Authority
- A Real-World Educational Content Provider
- Active Curricular Schoolwork
- IT and ICT Technical Services Providers

And since none of these environments can develop successful educational videoconferencing links in isolation, we introduce a layer of expertise that works with and between each agency, which we call programme co-ordination. Prescience Communications is an educational videoconferencing company that has been employed by Glasgow City Council over the course of the past 8 years to provide programme co-ordination.

Mr Benn is a children's character created for the BBC by David McKee. Mr Benn is an ordinary man who lives in an ordinary street, but who can go from his world into a world of adventure by dressing up in costume and passing through a magic door. Once through the door, Mr Benn finds himself in an adventure. In each of his adventures, Mr Benn talks with the people he meets and seeks to understand the world of the adventure, often by looking through surface elements of a situation in order to see underlying realities; and then, he uses his own knowledge and skills to contribute something there. When Mr Benn returns home, he comes back with a token that reminds him about everything that happened to him while he was in the other world.

The paper introduces a Mr Benn Test for judging the success or failure of a real-world link. Mr Benn has proven himself to be a valuable metaphor in describing different aspects of the coordinated effort that is required, and how the different elements of successful videoconferencing fit together. The paper also describes two case studies and shows how the test has applies to them.

E-COMMUNIC@TION 4 SCHOOLS 2 PARENTS

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Communication to parents critical to success of children

Communication between schools and families is essential for building trusting relationships that foster parental involvement. Parental involvement in schools and social institutes is necessary for youngsters to develop successfully and to make decisions that will have positive outcomes for their futures. This study will examine the role of new ICT communications technologies in improving parental involvement in schools and social institutes and uncovers barriers that prevent usage of technology to promote communication.

As society becomes increasingly dependent on technology, schools are investing more time and money in technological means of communication. Access to computer and Internet technologies is increasing all over Europe. It is proven that regular communication from school to parents is critical to the success of children. Traditional methods of communication such as face-to-face meetings have been found to be effective, however, these methods require time that both working parents and teachers lack. Technology has been heralded as a tool that can provide new avenues for communication, but studies show that parents and teachers are not embracing them in communicating with each other. Little research has been done to evaluate the role of emerging technologies in enhancing communication practices between schools and parents. It would be also necessary to investigate the difficulties and dangers that are accompanied with these tools. Sharing information by internet or learning environments can help parents and teachers to be more convenient. Online information can help parents knowing better the competences of the teacher. Teachers can report progress to the parents on a more suitable way. Traditional reports can be replaced with regular and up-to-date online reports which parents can access whenever and wherever they happen to be. Several free Web 2.0 tools are available.

What are the possible threats? Not all teachers are common with ICT technology and do not know how to use e-mail, learning environments, can make websites, blog pages, etc. Teachers must also be trained in modern social communication networks like Facebook, Twitter, etc. Not all teachers will be convinced of the profits of online communication with parents. So this supposes the willingness of the teacher to share his information and methods with parents. Spreading online information by e-mail, websites, blogs, etc. demands a lot of time from the teacher. Now he must spend lots of evenings behind his computer sharing information with parents, answering e-mails, making websites and blogs. This has to be included in his working schedule and may not become extra work. Parents must have a possession of a fast computer and access to the (fast) internet. They must have necessary programs (software) and the necessary knowledge to work with computer. Schools must avoid creating a new poverty gap in the school society: people who have fast computer and knowledge and people who do not have computer or computer knowledge. Schools can help to bridge the digital gap. Educating and training parents could be via holding after-school lessons for parents or online workshop detailing step-by-step guidelines for parents. Children can help their parents learning computer language. Teachers and parents must also be aware of potential dangers with privacy and security in using internet tools.

Technology provides an increase of quick and frequent communication between teachers and parents, much more than can be accomplished through conventional means. Although a teacher may not be able to take a telephone call during class, they can often take just a moment to communicate through emails. Programs must be developed that fund computer ownership, Internet access, and technology training for everybody. Once parents have technology access and the skills to use it, educational systems are likely to see an increase in electronic communications and parental involvement. Rather than get frustrated by poor parent showings at the traditional events, especially at the secondary and high school levels, maybe we need to come up with some radically new approaches in contacting parents and find ways to use technology about e-communication effectively.

DISTRIBUTED LEADERSHIP AND ITS IMPACT UPON STUDENTS' USE OF COMPUTER TECHNOLOGY IN SUPPORT OF THEIR LEARNING

Bruce Sheppard, Tim Seifert, Jean Brown, Memorial University, Canada

Our study purpose was to further understanding of how district and school leaders facilitate the increased student use of computer technology in support of their formal learning in public schools. In spite of the increased expenditures and attention to the use of technology to enhance student learning, evidence of any pervasive change in classrooms or of any direct link to improved student learning has been weak. In this study, therefore, we have taken one step back from a study of the impact of computer technology upon student learning outcomes, and have set our effectiveness measure as the extent to which students use computer technology in support of their learning.

While formal leaders are quite important in the change process, leadership in support of innovation must also be distributed to include teachers, school administrators, and district professionals. To that effect, we set out a leadership framework for this study that is premised on the assumption that formal school and school district leaders facilitate the engagement of teachers as leaders by being transformational and inclusive and through the provision of teachers' professional learning opportunities. As teachers begin to accept their role as leaders, they become engaged in shared decision-making, systems thinking, and the development of a shared vision for the school. This distribution of leadership has positive effects upon teachers' use of technology both in support of their work as teachers and in their classrooms. In turn, these leadership conditions are linked to increased student use of computer technology in support of their formal school learning.

In order to test our proposed leadership framework as described above and to determine the nature of leadership that is most likely to result in increased use of computer technology by teachers and students in support of learning and teaching, we proposed a theoretical model and employed path analysis using Amos17.0.0 Software (Arbuckle, 2008) and maximum likelihood estimation to test it. We collected our data through the use of surveys that were completed by 1277 teachers from 91 schools in one school district in Canada.

Our findings reveal that our best-fitting model explains 40% of the variance of Student Use of Computer Technology in Support of Their Learning. Of the four leadership variables, only District Leadership and Professional Learning Resource Support have a significant direct effect (.08 and .07 respectively) upon Student Use of Computer Technology in Support of Their Learning. In respect to teachers' engagement in distributed leadership activities, only Teacher Collaboration (.06) and the existence of a Shared Vision (.07) have a direct effect upon Student Use of Computer Technology. Not surprisingly, the largest direct effects upon Student Use of Computer Technology relate to the teachers' use of computer technology: Teachers' Use in the Classroom (.15) and the Extent to which Computer Technology Impacts the Way Teachers Do Their Work (.46). With the exception of the latter variable, the Extent to which Computer Technology Impacts the Way Teachers Do Their Work, all other direct effects are small.

When both the direct and indirect effects (total effects) of each of the variables upon Students' Use of Computer Technology in Support of Their Learning are considered, all variables have at least a small effect, ranging from as small as .03 for Systems Thinking to .54 for Computer Technology Impacts the Way Teachers Do Their Work. Overall, District Leadership appears to be a central factor in the use of technology by both students and teachers with measurable effects upon all variables, including moderate effects on six of the ten model variables. Of further note are the total effects of Teacher Collaboration (.17) and Professional Learning Resource Support (.16) upon Students' Use of Computer Technology.

While it is not surprising that the extent to which Computer Technology Impacts the Way Teachers Do Their Work has the single largest effect upon Students' Use of Computer Technology in Support of Their Learning, it was unanticipated that none of the leadership or professional learning community factors had any measureable direct effect upon Teachers' Use of Technology in the Classroom. While there is nothing in our data that explains this phenomenon, we speculate that there may be little deliberate leadership focus placed on teachers' use of technology as a routine component of their work either inside or outside of the classroom. To that effect, findings from this study may suggest that if there is to be any reasonable expectation that technology will meaningfully impact students' learning in the formal school setting, a leadership priority must be focused on teachers' use of technology. Further investigation is warranted.

PERSONALIZING E-LEARNING CONTENT QUICKLY AND EASILY

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If we consider the way "classic" teaching resources (such as textbooks, workbooks, etc.) are used by teachers we observe that they lead the learner through the resource, giving instructions on which part of the resource is to be used, how the learner should proceed, which set of exercises is to be done, what should be skipped etc. Thus, they are actually constantly making different combinations of different materials. The class the teacher is teaching and the pedagogical situation must always be taken into account in this process. Hence, it is very rare that any resource is used precisely in the way it was prepared. Authors of resources (e.g. workbooks) namely envisage a hypothetical pedagogical situation with hypothetical students. But the actual teaching process is always at least slightly different as the hypothetical one the author had in mind. Since the teacher should use the resources in the most appropriate way, s/he is "forced" to adapt them.

Nowadays the support of information and communication technology (ICT) plays a significant role in the process of teaching. More and more e-resources are available and can be used for teaching. But by analyzing these resources we often find that their authors do not use all of the opportunities offered by new technologies. One of their most significant drawbacks is the fact that authors too often forget (or neglect) the fact that these resources are meant to be delivered to the learners through teachers. Namely, e-resources are all too often just monolithic blocks (or at least their main parts are). This demands that the educator takes them as a whole, precisely in the order they were written in. Is that really necessary? Do all educators need the same form of resources, do they want to use them in the same order, and do they want their learners to see the same examples, do the same tasks? Why not use the possibilities that the new technologies offer and at the very least give the educator the chance to adapt the materials to their own and their learner's needs. Recent studies have shown that teachers need e-learning content that they can easily adapt and reuse for their own purpose. This means that lessons should be made out of small adaptable learning blocks or, as they are also called, "knowledge objects".

Therefore, a new concept of how to create really useful e-learning content has evolved in Slovenia; namely, by "putting the teacher back into the game". The selection of proper technologies and tools for managing e-learning content and the establishment of a user-friendly and easy-to-use environment for creating and modifying the content, are essential to ensure the support and popularization of e-learning.

In this paper, we present new ideas with proofs of concept of modular, really interactive e-content for teaching mathematics, physics, logic and computer science using open-source solutions and open standards. The mentioned content is not intended to be used as an electronic teaching book, but an add-on to the standard learning material. You can see some preliminary results, which are mostly meant for primary and secondary school teachers, at http://www.nauk.si.

E-LEARNING, CHANGING STAKEHOLDERS AND PARADIGMS: UNIVERSITAT OBERTA DE CATALUNYA (UOC)

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This paper draws on the author's work in progress in the Internet Interdisciplinary Institute (IN3) E-Learn Research Project titled Critical Factors Leading to Successful E-learning in the Universitat Oberta de Catalunya (UOC). At a time when many e-learning initiatives fail to achieve the promises of e-learning, this paper examines some reasons for these failures, and looks at the reasons for the continued success on the other hand of the UOC which began operations in 1995 and is the world's first continuous and sustainable virtual university. The non-prescriptive nature of this paper reflects the successful strategic alignment of vision and reality in the UOC model that has implications for fostering national, regional and global learning communities, and provides useful guidelines for universities as they re-position themselves to meet the demands of changing stakeholders and paradigms in technology-mediated environments in the knowledge society.

The strategic goal for all societies and regions is to become the dynamic knowledge based economy capable of sustainable economic growth in the world, with a highly skilled workforce, a better quality of life and greater social cohesion. The adaptation of current education systems to develop human capital is critical for the attainment of this goal. As teachers and learners find that they need to adapt to the presence of the internet, university managers and administrators will need to rethink the structures, strategies, procedures and programmes needed to deal with the processes of technological advances, globalisation, and cultural, economic and ideological upheavals that today underpin the crises in education in the developed and developing economies.

There has to be another way-a new university paradigm. The search for such an alternative path began in the early 1990s. The university must change in order to remain relevant to its core business of the creation, consolidation, critiquing, processing, dissemination and storage of knowledge that can be applied to real life problems in culturally appropriate ways. At a time characterised by the economic downturn, changing learner expectations, changing demographics, and the changing nature of the knowledge and skills demanded by industry, research into inhibitors and success factors for e-learning approaches may be useful for fostering national, regional and global initiatives and communities of practice. In this paper, critical success factors are defined as factors whose presence are necessary for an organisation to fulfil its mission, and if these are not present then their absence will cause organisational and/or mission failure. What are the factors necessary for sustainable e-learning higher education systems?

EDUCATION IN SECOND LIFE: LESSONS LEARNED THROUGH THE EXPERIENCE OF SARDIGNA

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The growing popularity of online worlds in recent years shows us the strong interest in the possibilities of using these environments for many different purposes and activities. In the world of Second Life initiatives related to the sphere of education are numerous, and the researches conducted by institutions or individual teachers interested in improving their knowledge of the online environment coexist with informal educational initiatives. The analysis of informal learning experiences become crucial to the understanding of the dynamics that occur within an online world: in self-generated and self-organized situations it is possible to distinguish the typical ways of experiencing these environments, in order to understand how learning can emerge and develop itself in such new forms of culture. When successfully reapplied to the formal educational practices, the new and original modalities can be properly used to structure the learning experience, thus contributing to its success.

Experiencing the world personally can deeply contribute to the identification of new dynamics enabled by the new environment, where, as a matter of fact, the trends in the early years were limited to the reproduction of the offline reality. This happened not only for places and building (with the attempt to reproduce exactly the aspects of the physical world), but also for education, where the first instinct was to replicate methods and practices already established in the offline world: traditional classrooms, lectures, slides.

Informal learning in Sardigna

As recognized by many researches, online worlds recall a way of learning centered on the self-construction of knowledge through experience, exploration and discovery. The work on the island of Sardigna has proved to be a useful starting point for some reflections upon the aspects that characterize online worlds and shape the user experience in a totally new and still partly unexplored manner. The particular aspect of Sardigna is that, from the very beginning, it became the meeting place of Sardinian users who already inhabited Second Life (the most of which living in other places in the world) and users from different countries interested in some aspects of Sardinian culture; currently, the community of Sardinia has about a thousand members, a hundred of which constitute the most frequent visitors of the land. These people made it possible to achieve the initial goal. Indeed, a lot of volunteers helped in the reconstruction of some historic monuments (mostly destroyed in the physical world) which now offer not only a showcase and an exhibition of the past of a culture, but also the possibility for visitors to explore and relive a historical period which several studies still focus on.

If immersion may be considered the result or consequence of the representational fidelity, the sense of presence, or rather co-presence, is a concept closely related to the aspect of sociability. Once again, the experience of Sardigna can be an effective example. A great part of the community often declare that they like the island because of the sense of being part of a community, the sense of being closer to the places they feel they belong to. This feeling of "natural" belonging drifts from the environment they are immersed in, which is visual and social at the same time: they not only walk (or fly) through places they use to know, but also talk and listen to people whose accent and language they are familiar with. They get in touch with them, they know each others, the community gets reinforced. Each time a new building is completed, its positioning on the ground of the island becomes a moment of aggregation for the community members. They observe builders working, congratulate them and start to ask questions about the new construction, thus becoming themselves experienced guides for the next visitors.

The relevance of the social aspects in the interaction dynamics in the online worlds is therefore the key element that allows us to interpret their reality: a (social) space that enables the construction of other worlds, which cannot prescind from the active presence of people. What is often underestimated is that these environments are, more than mere technological tools, real environments where (so far) almost unexplored social interactions take shape. The digital environment becomes a medium, and as such it gives shape to our actual experience. The experience of informal learning can help avoid resorting to classical method of teaching, and easily identify the methodologies that best suit the educational aims. In order to achieve this result, it is necessary to stake on creativity, get rid of prejudices and be open to accept new forms of sociality and knowledge production developing in new media such as online worlds.

ENHANCING E-LEARNING IMPLEMENTATION WITH ORGANIZED E-LEARNING SUPPORT

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Implementation of ICT and its use in teaching and learning in higher education have become standard component of many university courses. But, as these courses multiply, institutions have to face another important and unavoidable question: whether and how to provide continuing and sustainable support. This paper addresses the issue of enhancement of e-learning implementation with organized e-learning support. The support issue is becoming critical to the continued growth and success of e-learning implementation. In the paper presented is how E-learning Centre at the University Computing Centre supports users in e-learning at the University of Zagreb. The University of Zagreb is traditional university which has to cope with challenges of the 21st century and at the same time face the risk of losing its status of the premier educational institution in Croatia. The University of Zagreb decided to take certain steps towards embracing new technologies considering them as an efficient tool in the realisation of quality changes within the Bologna process. Systematic implementation of e-learning at the University of Zagreb started in 2007, with the University E-learning Strategy.

Central unit at the university level which provides assistance in implementation of e-learning is E-learning Centre at the University Computing Centre. E-learning Centre was established in 2007 as a unit within University Computing Centre. Some of the basic objectives of the Centre are rendering support to teachers and students, communication and cooperation with schools through their local e-learning teams, ensuring and providing generally accessible e-learning platform and ensuring joint/centralized resources required for application of e-learning and finally, but not less important, promotion and dissemination of information about e-learning. These objectives are described in details in paper. Periodically, surveys are performed on the status of e-learning implementation at the University of Zagreb and some of the results are presented in paper.

The paper concludes with some observations on the role of organized support in e-learning implementation process and experience gathered by E-learning Centre in supporting users in e-learning at the University of Zagreb.

MULTIMEDIA STUDY SERVICES – A BLENDED LEARNING APPROACH FOR PART-TIME BACHELOR STUDENTS IN THE STUDY FIELD OF ECONOMICS, BUSINESS OR SOCIAL SCIENCES

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Due to an increasing number of professionals, students with children, or students who have to fulfil other social responsibilities the Johannes Kepler University of Linz (JKU Linz) developed a concept in order to improve the situation for those students and to offer studies with blended learning components. This programme intends to attract more students living far away from the university or being inflexible in time due to job-related reasons, and who are therefore not able to attend on-campus programmes. The idea of the programme is also to enable persons, who have to look after children or care for elderly people to study at the university. Besides, the idea is to integrate more students into the scope of lifelong learning, since studies showing that Austrian higher education is well behind other OECD countries (concerning access, duration and graduation) indicate that universities should therefore offer programmes to those who are not able to take part in regular ones.

This paper outlines the concept of that programme, called MUSSS (Multimedia Studies Service SOWI). It is based on a blended learning approach, which means that it consists of a combination of elements from both the multi-media distance learning programme and on-campus courses. This study programme has been designed to allow students who have either to fulfil duties such as taking care of children, elderly people/ people with special needs or who are bound to a certain region and therefore not able to go to the city, where the university is located and attend the courses in class there, to complete at least some parts of their studies by means of e-learning. The main focus is on classic on-site sessions in a face-to-face environment that requires physical classroom presence (if possible in the individual region), but enriched by a virtual campus.

Therefore we had to develop a concept, which on the one hand guarantees that students attending MUSSS-courses pursue the same program of study as those who are physically on the campus. On the other hand it creates such conditions that students are able to control their learning settings and the preparation for their exams themselves and which allows them to comply with their needs and perform their respective duties like child care or job-related requirements. In order to serve in particular those students who live far away from the university, MUSSS organises on-site courses in areas outside the campus so that the students are able to study right at their centre of interest. These regions typically are too far away from university to travel on a day-to-day basis.

The regional centres are highly interested in offering higher education on location, because the standards of education are important for the development of a region. Moreover the region itself benefits from well-educated people, who are working in their region and are also staying there. So, the infrastructure needed for lectures is provided in cooperation with regional organisations like the municipality or the chamber of commerce.

Another important factor is the study acceleration of MUSSS, because this programme offers courses during the holiday period so that regular students as well as students who are attending only MUSSS classes are enabled to speed-up their studies, avoid delays and diminish the programme duration, which is especially interesting for part-time students. These students are therefore able to use the summer holidays to attend block courses.

So far, the pilot phase has started in March 2009 with five courses, followed by the regular program, which was launched at the beginning of the winter semester 2009 with 17 courses. The first experiences with MUSSS show that there is a high demand for courses at university level. Especially working people seem to benefit from online courses because of self-directed learning settings and the enhanced flexibility concerning time and space. Besides, there is a growing demand for summer courses, which help students to accelerate their studies.

Moreover, this article points out the importance of higher education for Life Long Learning in the different periods of life that considers the life situation of the students.

LINKING FORMAL AND INFORMAL LEARNING IN SCHOOL AND LOCAL COMMUNITY USING WEB 2.0 AND SOCIAL SOFTWARE: A CASE STUDY IN THE ITALIAN PROVINCE OF TRENTO

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Social software as "bridge" between school and local community

While students use social software outside school in informal contexts, it is still very rare that these tools become part of specific curricular activities. The problem that is emerging, is therefore primarily linked to the perception by students of a real "digital dissonance" (Clark et al., 2009) that threatens to deepen even further the gap between educational institutions and learning and society. An action research, undertaken by University of Padua in collaboration with IPRASE – Provincial Institute of Educational Research of Trento (northern Italy), attempts to investigate learning processes in informal and non-formal situations mediated by social software and Web 2.0 and examines their possible integration within the formal school curriculum. The key focus of the project lies in the belief that social software can be a "bridge" between school and the community of the area and help create an active learning environment, where students, teachers and communities are trying to solve real world problems together. So, the "Didaduezero" project was launched in the second half of 2008 and will continue throughout the biennium (2009-2010). It consists of two main phases. The first phase focussed on training of teachers who have joined, and testing of social software in teaching. The research team developed four thematic training modules:

- Building collaborative knowledge in the territory and in the community,
- Sharing of books and building communities of reading on-line,
- Discover and share resources geo-referenced,
- Create and share maps of the territory intercultural.

The teachers could participate in by choosing one or more of those they considered most appropriate to their needs, even in response to the community, social and cultural context in which their schools are included. For the achievement of the project, it was vital that teachers were able to master new skills techniques and methodology on the use of Web 2.0 software in order to allow, acknowledge, govern the processes of knowledge sharing and on-line also to stimulate the students. Therefore, from a theoretical and methodological introduction to these topics the training intervention was then developed in laboratory practice to stimulate the development of knowledge, skills and for expertise to be put to use immediately in everyday teaching practice and later also in social integration.

Social software and Web 2.0 tools to share useful digital artifacts on local resources

The second phase is still ongoing and will see the setting up of specific projects. The results of first phase were positive and encouraged and the research team decided to proceed with the previously adopted methodological approach. Six focus groups (one for each local community) were organized, according to a phenomenological approach, in order to allow data to emerge from the beginning of the proposed projects (i.e. a bottom-up approach). These group interviews also had a main goal to reveal in detail the perceptions and behaviours of participants from two different contexts (school and local community). This comparison could initiate meaningful, productive, and hopefully enduring dialogue, which is the real aim of the research. Indeed, we recall that the main objective of this action-research is to create, through the use of social software and Web 2.0 tools, the establishment of communities of practice for the creation and evaluation of local resources through synergy and integration between local schools/institution-associations/co-operatives.

As the research is "work in progress", it is not possible to draw any final conclusions from the analysis and interpretation of the data collected. However, we can nevertheless speculate, from an initial reading of the focus group material, that there appears to be effective involvement by the local communities in order to collaborate actively in the implementation of shared digital artifacts, and related projects, with schools.

INTRODUCING E-LEARNING INNOVATIONS IN HIGHER EDUCATION
A FRAMEWORK FOR DESIGNING CHANGE MANAGEMENT STRATEGIES

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The integration of e-learning innovations is the current challenge for organizations in Higher Education in order to support learning, teaching and administrative processes. Due to changing student needs, increased competition between organisations, different political and economical conditions as well as new pedagogical and technical approaches in higher education, institutions need to implement e-learning to generate pedagogical and economical added values. This view implies that e-learning can be seen as an instrument for promoting institutional profiling. Such requires however an organisation-wide usage of e-learning technologies in all departments, faculties, institutes etc. concerned is essential. Indeed the use of technology varies a lot. While some teachers have been continuously using e-Learning technologies for many years, others still reject all kinds of technological innovations. Many studies have confirmed that the use of e-learning innovations in teaching basically depends on the motivation and attitudes of the teaching staff as well as the organisational conditions. Change management strategies and interventions (e.g. incentives, training, communication, support, networking etc.) should help to create conductive conditions in organisations and to increase the acceptance toward e-learning. This includes the use of interventions which meet the needs of potential users. Further research is essential for designing and implementing target-group-specific change management strategies in institutions of higher education.

The present paper focuses on the introduction of e-learning innovations within institutions of higher education. In order to develop a framework for designing change management strategies the research project "Adoption of e-learning innovations in higher education" has been conducted at the Media Centre of the Technical University of Dresden (Germany). Thereby the project comprises conceptual and empirical steps of research: First of all, a model was introduced which simplifies the design of change management strategies. Based on the process of e-learning adoption the model helps to plan accompanying interventions during the introduction of e-learning innovations. Additionally, influencing factors of e-learning adoption and adopter characteristics were analyzed by an empirical study in institutions of higher educations in Saxony[1]. The study identified four types of adopters in regards to their motivation and attitudes toward e-learning: young professionals, experienced explorer, sceptical preserver and reward seeker. The article introduces both, the model of e-learning adoption and the quintessence of the empirical study.

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[1] Saxony is a state of Germany, located in the south-eastern part of Germany.

THE TIMES THEY ARE A-CHANGIN'– MODELLING NETBASED LEARNING AFTER 25 YEARS PROFESSIONAL PRACTICE IN DISTANCE AND E-LEARNING

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This paper focuses on models for net based in-service courses in ICT and learning for teachers. Since the end of the 1980s Stord/Haugesund University College (SHUC) has offered in-service courses for teachers on "ICT in learning". SHUC started teaching online as early as in 1992, postgraduate courses from 1991, and since 2003 Stord/ Haugesund University College has offered a masters programme in "ICT in learning" as a blended solution.

In this paper we reflect on the historical development and present a revived model of where the new media and social progress has taken us as educators. The model we present today is a continuation of the traditional distributed study (model 1) and a blended learning solution (model 2). Findings in this paper are based on experience from several in-service study programmes (30 ECTS-credits) together with the master programme at SHUC.

From on-campus teaching to blended learning

Ever since SHUC started offering traditional campus based ICT courses to teacher students, great effort has been put into developing suitable organizational models for teaching and learning. Our first ICT based course was developed as a traditional distributed course. It was offered to students who wanted to study on demand and without visiting campus. The face-to-face situations were more or less absent in such courses, but they were desired by both teachers and students. Based on these facts, a combination was presented in order to optimize the distributed courses; a blended learning solution combining net based and on-campus teaching.

A new course model: "close-to-practice"– competence training

The upgrading of the Internet from web 1.0 to web 2.0 has provided new opportunities. This has given us a new platform for communication and collaboration, and for building learning communities. In order to improve traditional net based courses, the course model should be more closely related to the context the teachers are working in, - the practice they want to improve with their increased knowledge. To have influence on the development of technology, teachers and students need to engage in it and develop an understanding of how the technology fits – or should fit – into their own activities of work and learning.

Challenges and conclusions

To make it possible to cater for the needs for skills and knowledge at the workplace, a new way of orchestrating courses is required. We have argued for a change in how to develop and run courses using ICT.

The aim of the paper is to introduce a new model for net based learning and teaching as an improvement based upon 25 years of experiences. We have identified and discussed four crucial elements: technological context, organization, content and competence. The final discussion emphasizes three different main challenges: *freedom, common understanding of the new learning environment and the incorporation of ICT in each subject.*

A challenge for the universities and colleges is authenticity. Describing learning situations which give motivation and induce lasting skills, knowledge and changes in practice, requires authentic and meaningful learning contexts. The role of the higher education will be to grasp the school context and take part in the reflection processes in the classroom together with teachers.

INCREASING LIBRARY RESOURCES UTILIZATION VIA E-LEARNING AND WEB 2.0 TECHNOLOGIES

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Introduction

The Open University of Cyprus (www.ouc.ac.cy), a young State University, has managed to achieve a high rate of adoption of new technologies in the educational process in a remarkably short time. Within the first 3 years of its operations it managed to evolve from simple email based communication to an advanced e-learning environment that includes a customized asynchronous e-Learning platform, synchronous communication tools and a variety of resources in terms of educational content. The University invested generously in its Library, but has been unable to increase the usage of the Library resources by its users. This paper discusses a number of initiatives to address the issue, which target Library users through novel training courses to be offered via e-learning, and the rich use of Web 2.0 tools.

Teaching and Learning at OUC

OUC uses an adaptation of blended learning. Under this model, during each academic year students attend a number of face-to-face meetings with their tutors, taking place mainly for discussion, and also for maintaining personal contact between academic staff and students. Teaching and regular communication is conducted using a number of synchronous and asynchronous communication tools. The OUC customized e-learning platform known as *eClass* enables the utilization of specially written materials for online presentation, as well as remote access to rich collections of digital resources and to traditional printed materials via the University Library.

The Library Utilization Problem

The University Library has been continuously enriching its resources, both in printed and in digital form, as well as its collaborations with international online digital libraries. The Library users include students, academic and research staff, as well as guests. To understand the library utilization problem interviews were conducted with academics, students and administrators, program curricula and teaching methods were examined, and similar cases were studied. The findings were not surprising:

- The distance learning nature of the University led academic staff and students to work mostly with online resources readily available or given directly to students. Using Library resources was not required.

- The large numbers of OUC students living abroad could not easily visit the Library physically.

- Existing guides for accessing and using digital libraries available had a lot of room for improvement.

- User support took place only via phone and via email, and was generally considered insufficient.

- Many users, even academics, often expressed concern about not being informed about Library resources and tools.

Clearly the solution must include new ways to inform, educate, involve and communicate effectively with the Library users.

The Proposed Solution

The authors propose a solution that will exploit the existing expertise and tools of e-learning, in combination with Web 2.0 tools. The solution calls for the development of a *Library Educational Gateway (LEG),* through which users will be informed, educated, involved and will communicate effectively. E-learning tools and services will be used to bring together students, educators and administrative staff as needed. Both synchronous and asynchronous communication tools will be provided in order to support individual and group needs. Rich content that will include training, guides, user contributions, and webcasts on topics of common interest will be created and made available freely, and in multiple formats. Finally, web 2.0 tools will be used to involve students in discussing Library resources, and in collaboration with academic staff to create their own content as part of their study work, as a first step towards the creation of online communities of users.

THE IMPORTANCE OF COMMUNICATIVE COMPETENCE IN THE EDUCATIONAL PROCESS

Dolors Capdet, University of Barcelona, Spain

Data and information are the foundation of learning, understood as a conceptual process, procedural and attitudinal, implicit or explicit, of constant storage and retrieval all information likely to be transformed into knowledge, or what is the same, into valid patterns to solve problems.

Some of these patterns have been transferred to the machine to automate the process, however, although the artificial reasoning emulates with some success the human reasoning, there are fields in which one or the other are more efficient. See, for example, these two situations:

- To solve a complex task, the machine has a performance protocol that allows you to get from one point to another (upstream or downstream, depending on needs) quickly and effectively. For the person, the fact of leaving the main line repeatedly to resolve an operation or to find additional information involves much effort and considerable investment of time.

- When a specific task is searched or requested, the computer needs correct and accurate data (spelling, syntax, etc). If not, provides an incorrect data or an error message. The person however intuitively can overcome these gaps, understand the meaning and carry out the process effortless since it has a great ability to create patterns from data and information received.

The evolution of Computer Science and Artificial Intelligence have provided tools that, adapted to the educational world, they greatly facilitate the process. This is the case of the systems based in the hypertext (web), in the intelligent tutoring (ITS), in the automatic evaluation, in the collaborative learning, and in the learning through simulations and games.

The Web 1.0 brings new concepts to the educational world. On the one hand, imply a fragmentation of discourse (disseminated on different pages linked by links), and, secondly, the development of platforms (LMS) that offer the possibility of synchronous interaction and asynchronous without temporal or spatial restrictions.

The Web 2.0 facilitates the interaction (social networking, videoconferencing, ...), the generation of content (blogs, wiki, videos, slides, ...) and offers the possibility to create new visual metaphors in 2D (conceptual maps, ...), 3D (virtual worlds, serious games, ...) and mixed (augmented reality).

The Web 3.0 (Semantic Web) is based on ontologies (defining the concepts and relationships in some domains sharing) and seeks to provide a meaningful relationship data, information and knowledge to provide valid answers on-demand.

All these developments are based on languages and specific metalanguages that supported the interaction (person-person, person-machine, machine-machine), base of the communicational process.

The communication, understood as a process that ends when the receiver obtains a meaning of the message received, is the basis of educational discourse. However, getting a meaning does not mean it is necessarily relevant to the receiver, or that it constitutes an original contribution of information capable of modifying cognitive structures of the receiver. Therefore, to develop and interpret an effective discourse is requires the availability of sufficient knowledge and skills to use all available resources in the sociocultural context in which it is immersed, or what is the same: sufficient communication skills to manage the data properly.

The communicative competence involves the ability of the issuer to formulate strategic objectives, to encode properly, for choosing the most appropriate channel depending on message (seeks the elimination of noise), and ability to anticipate the interpretation of the meaning, generating complicity and connection with the interests of the receiver to produce a feedback.

Faced with the human communicative competence, in the digital discourse the significance lies in the ability of the machine to meet well-defined problems, through well-defined operations, carried out about also well-defined existing data.

AUTHENTICITY OF LEARNING OBJECTS THROUGH THE CONCEPT OF WEB OF TRUST BASED IN SPECIFICATIONS IMS AND SCORM

Paulo Alonso Gaona Garcia, Santo Tomas University, Maria Margarita Faraco Charry, Distrital University, Colombia

This document presents a strategy for managing the authenticity of contents on the development of Learning Objects LO on LCMS platforms, all based on SCORM and IMS specifications to guarantee of created content in this type of learning environments, and enabling interoperability between different virtual learning platforms by concepts of digital signatures, identification of protocols and security mechanisms to ensure this type of activity.

Principles of Learning Objects

Learning objects in a virtual environment, are the source for the presentation of content aligned to pedagogical methods and strategies in Academic Institutions and training centres, its growth and acceptance in recent years has represented one of the most important factors content development under a set of specifications which represents to be a format that is as transparent when presented in different learning platforms. This set of specifications is one of the key points that has allowed a great response to the academic level, but at the same time presents a number of features at the level of authenticity of those that are not clear at the time to share this resource in a virtual environment, which always generates a degree of distrust in the use of such resources on a virtual environment.

Web of Trust and Relationships with Learning Objects

The concept of "Web of Trust" WOT, has been working since the launch of the PGP "Pretty Good Privacy" for email security, which raise the idea is to allow and accept the identity of a user in a communications system as long as this is recognized by another user who belongs to a system that guaranteed me a minimum of confidence to accept it within the communication framework of the platform they are sharing. To determine the authenticity of content within a set of SCORM specifications through to determine: Who creates spaces within the Platforms?, Who creates the content?, Who uses content?.
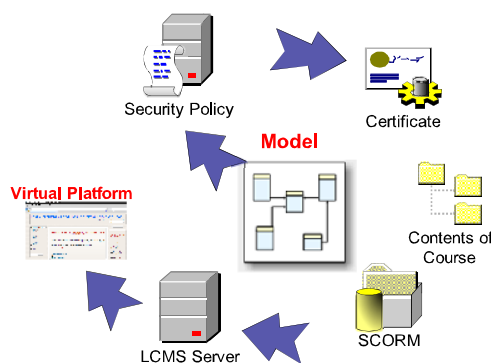
Figure 1 Model Proposal for Content Security

In this model we can see that the security mechanisms at the level of authenticity of contents on LCMS platforms depend on the set of specifications as IMS or SCORM, but currently not mature enough so they can be implemented. So in the proposal made is important to determine what will be considered not only a digital signature in an environment LCMS, but take into account the content validation of people who create the virtual space by the administrator, people responsible for creating content by the teacher and eventually generates a signature by the person using the material, in this case the student and / or guest, leading to a high security level in the origin of the content available an LCMS, approaching the concept of Web of Trust "WOT", which will generate a reliable working environment on the material available in these learning environments.

EL DEBATE SOBRE EL EFECTO DE LOS MEDIOS EN EL APRENDIZAJE

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Resumen

El propósito de este trabajo es determinar el impacto del debate sobre el efecto de los medios en el aprendizaje, en la Tecnología Educativa y la Educación a Distancia, a partir de los argumentos de Richard Clark y Robert Kozma, profesores de universidades reconocidas de los Estados Unidos y de la posición de otros autores al respecto.

El argumento inicial de este debate lo establece Clark, en el sentido de que los medios no influyen en el método instruccional, son sólo vehículos. Al respecto Kozma, señala que no puede separarse el método del medio que deben observarse de manera integral.

En este documento, los medios tecnológicos en los procesos de enseñanza-aprendizaje son las Tecnologías de Información y Comunicación, que se conciben a partir de procesos y productos derivados de las herramientas de hardware y software. Se presentan también, las posiciones al respecto del debate, de autores como Cabero; Area; Bartolomé; Joy y García; Escudero; Villaseñor; Simonson, Smaldino, Albright y Zvacek.

A partir de la revisión de los argumentos de Clark y Kozma, se concluye que la diferencia entre sus posturas, está en la concepción de los medios dentro del proceso de enseñanza-aprendizaje. En un principio, Clark los ubica en un punto neutral del proceso, mientras que Kozma, los integra como un componente que puede influenciar el proceso educativo.

Abstract

The purpose of this research is to determine the impact created by the debate regarding the effect of media on learning, in Educational Technology and Distance Education, from the arguments of Richard Clark and Robert Kozma, professors from prestigious universities in the United States along with the statements of various authors in this regard.

The initial argument of this debate is stated by Clark, discussing that media have no influence on the instructional method but they are vehicles alone. On this regard, Kozma points out that the method cannot be separated from the media, but they need to be observed integrally.

In this document, technological media in teaching/learning process are information and communication technologies, which are conceived from the processes and products derived from the tools of hardware and software. The positions of authors such as Cabero; Area; Bartolomé; Joy and García; Escudero; Villaseñor; Simonson, Smaldino, Albright and Zvacek, are also featured.

From the revision of the arguments made by Clark and Kozma, it is concluded that the difference between their positions is the conception of the media within the teaching/learning process. Originally, Clark places media in a neutral point within the process, while Kozma integrates media as a component able to influence the educational process.

E-LEARNING NEW TENDENCIES AND INNOVATIVE EDUCATIONAL ACTIVITIES

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Madrid Open University (Universidad a Distancia de Madrid) (www.udima.es) through its Director of Innovation, Mrs. Ana Landeta, has co-ordinated the study "E-Learning new tendencies and innovative educational activities". A study which shows the latest techniques related to e-learning in the international educational scene.

Synopsis

Both creativity and innovation are becoming critical at present. As the challenges faced by institutions, teachers and students are constants. Technological training of individuals, life long learning and the evolution of traditional methodologies are significant realities in our society, and in particular in the global educational landscape. The typology of the practices provided in this study corroborates that the inclusion of technology is an indisputable reality in all spheres of education.

Introduction

This study is part of the studies associated with research in the field of Education and New Technologies we are dealing with in Madrid Open University. Within the framework of innovation, in our University we are aware of, not only improving our methodology and educational services, but also in the line of investigation opened in the application of ICTs in different areas.

Therefore this study is based primarily on analysis of new educational policies derived from the latest technology and implementation methodology with the emerging technology.

In this study contributions have come from 55 institutions, 28 national universities, 27 universities and 93 international authors.

Structure

The study presents three different areas: firstly devoted to the analysis of new policies and trends in e-learning, the second contains contributions documented educational activities based on the application of ICT in different educational contexts, and it concludes with a third part showing the results of the assessment of learning associated with the role of innovation in European society, and how learning is changing thanks to the use of ICT "LEARNOVATION Project".

Learnovation has been working to link "practices of innovation" to policy priorities. One part of this work has resulted in the production of a "Policy Support tool", a web-based analysis tool that allows users to analyse LLL policies with respect to their impact on innovation objectives.

A BLENDED LEARNING EXPERIENCE AT THE UNIVERSITY OF VALENCIA USING ELLUMINATE, A VIRTUAL CLASSROOM TOOL ONLINE

Maria Dolores Sancerni, Ana Hernández, Inés Tomás, Susana Lloret, Universidad de Valencia, Spain

Introduction

The study describes and analyzes a teaching methodology based on Blended Learning in Psychometric, a discipline of Psychology degree from the University of Valencia, using Elluminate Live!, web-based collaboration software that allows the instructor to duplicate much of the benefits of face-to-face lecture in an online environment.

The experience was launched as a pilot study prior to the introduction of the new curriculum from the European convergence. Combined lectures, practical sessions, tutorials, independent study and collaborative work. All these activities were conducted in the classroom and through Elluminate, offering recording sessions to the students for later review and to improve student achievement and enhance the development of specific and personal skills. It's also allowed the access to classroom live Erasmus to students who were not at that time in Valencia, as well as students with disabilities and problems with physical access to classroom.

In order to assess the adequacy of the proposed blended methodology, it is important to evaluate both the student achievement and their satisfaction with the methodology. We focus on the satisfaction by gathering student opinions about the utility of the ICTs (internet, virtual tools, and Elluminate) and their satisfaction with the experience. We also assess the utility of Elluminate by examining the frequency with which the students used the software to attend classes and watched the recording. In addition, to control for possible differences among students we evaluated if the utility of the ICTs and the students' satisfaction with the experience depended on the fact that they work or not, the fact that they are registered in other courses that overlap with Psychometric or not and if they have spare time between Psychometric and other classes or not.

Results

The results are based on student scores in different activities undertaken and a survey applied at the end of the first half of course, which obtained data on the valuation of various aspects of the experience, the usefulness of higher education information technology and Elluminate. The study was conducted in three different groups of students, one of the groups has sessions attendance morning and the other two groups has evening sessions. Of the 420 students enrolled in these groups, 118 responded to the survey raised.

The experience is proving successful: 79.3% of the students believed that the blended methodology is necessary to improve the university, about 50% is in agreement with online tools to improve teaching and learning, and about Elluminate, 91.7% of the students think is a tool ideally suited to complement the classroom, 75% would recommend using this tool to friends, and almost 50% would consider course using Elluminate.

- Utility of ICTs. Students positively evaluated the use of internet as a whole as an aid for the learning process, the use of the virtual tools placed in a virtual classroom, and the use of Elluminate.

- Students' satisfaction with the bended learning experience: was positive. Students with overlapping problems rated the experience more positively. There were also positive and significant correlations between the level of satisfaction with the experience and the perceived utility of ICTs (using the internet, the virtual tools and Elluminate).

Conclusion

The results suggest that confidence in the ICTs as part of the learning process and the perceived utility of these technologies can increase with their use, which, in turn could increase the perceived utility of bended learning methodologies as a whole. Our study only encouraged a third of the participants to undergo a deep change in their learning process: those students who connected through Elluminate weekly.

M-VOICE LEARNING UOC, A VOICE-BASED LEARNING EXPERIENCE

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The convergence of voice and data – and the subsequent appearance of technologies such as VoIP, enabling voice and speech resources to be integrated with internet data networks and common internet structures – has seen a wide range of interesting advanced internet-based communication initiatives, such as Skype.

The numerous advantages of this technology are well-known (reduced call costs, ease of broadcast over lower bandwidths, etc.), but can this technology really help improve and drive education on virtual learning environments? In theory, the answer seems clear – it does provide advantages, in that it helps improve communications and, as previously mentioned, it offers access to the web 'garden'.

The project described in this article is based on this idea and examines the potential for incorporating certain voice-based resources and technologies in learning processes, combining them with the concept of mobility – specifically with mobile learning, which, according to a number of authors, is defined as the point at which mobile information technology and e-learning cross to create a learning experience any time, anywhere.

The **m**-**Voi**ce **Lear**ning UOC project has tried to go that bit further in the use of new technologies applied to education, supporting a new methodological approach based on mobility. The proposal is to provide students with a complete learning experience via their mobile device.

As part of this experimental project an e-learning platform has been created, equipped with a VoIP communication system for students and faculty, making a subject or part of it accessible via mobile devices and compatible with the UOC Campus. The project uses the VoIP resource as a unifying and dynamic element of the learning process.

FACEBOOK AS A TEACHING AND LEARNING PLATFORM IN UNIVERSITIES OF THE NEW MILLENNIUM

Ana Maria Rodera, Gemma Aguado, Carles Fernández, Universitat Oberta de Catalunya (UOC), Spain

The UOC's educational proposal for Facebook

Our training activity took place on the Facebook social network where we offered two free courses for those without officially recognised credits. The aim of the courses was to provide students with a series of useful tools and resources for the management of the texts, photographs, and audiovisual and multimedia materials produced when on holiday.

The method used was based on the possibilities offered by open social learning, where both faculty and students adapt to a horizontal framework for participation to aid self-management of knowledge in the learning community. The expert promotes dialogue and learning through discovery, while the student takes on the leading role in the construction of their own knowledge through participation and collaboration with course mates.

In our experience, we observed four different phases: the presentation phase, where the course method and aims were set out; the assimilation phase, where they began to understand the method based on collective discussion; the production phase, characterised by exchange and intensive teamwork on the blogs, and the final phase, in which they presented the results (the blogs).

Conclusions and prospects

The interpretation of the data derived from the survey of those taking part highlights a series of recommendations to guide future designs of educational activities using Facebook.

- A minimum level of digital literacy is required for those taking part in the teaching and learning proposal.
- The 2.0 platform selected for the educational task has to be at the service of the learning.
- The use of methods that are more open than those usually seen may lead to a sensation of helplessness in some participants; thus, the method to be used in the activity should be made clear from the start.
- The teaching and learning activities should aim to promote learning by doing, placing special emphasis on teamwork and personalisation of the learning products.
- Selection of one or more experts in the field is a vital factor in ensuring success.
- The materials have to be of good quality, up-to-date and available on the web under Creative Commons licences that allow for their free and open (re)use.
- It is vital that the activity be designed with a flexible timeframe.
- An initial period is required to allow participants to familiarise themselves with the course.
- The choice of Facebook as a platform for catalysing knowledge construction brings with it certain limits and benefits that need to be known and taken into account.

We are in the midst of a time of change in education and we need to take advantage of this in order to make the most of 2.0 tools that can strengthen shared knowledge. To do so, we need to experiment with social networking software in university education, investigate the possibilities offered by social software in terms of learning activity design, assess the educational proposals made on 2.0 platforms, make changes in order to adapt and improve, etc. In other words, we need to enter a dynamic of educational development designed to achieve quality, useful education for 21st century citizens.

THE USES OF SECOND LIFE (SL) IN THE SPANISH UNIVERSITY: AN APPROACH TO THE SPEECHES ABOUT PRACTICES AND PERCEPTIONS

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Introduction and Methodology

Since its origins in 2003, the Multi-User Virtual Environment (MUVE) "Second Life" (SL) has been used by teachers in higher education classes as it has happened with other computer new technologies. Actually, there are a lot of scientific articles about the use of Second Life in class although, relating to the Spanish university, there are only a few, no more than 20, that analyse the institutional and academic uses of this environment at class. More than 300 universities around the world have started some projects using it. In Spain there are 20, approximately. Our interest for understanding and knowing how these practices had been developed in higher education in our country brought us to conduct a research about practices, perceptions and speeches in the Spanish universities that had used it. We have studied specifically the members of these universities that had participated in these projects. The lack of theoretical analysis about the academic and institutional uses of SL in Spain led us to consider the grounded theory as the best methodology to answer our questions. The research methods that we used to collect and analyse data in our work were the focused interview (that we carried out using the VoIP "Skype") and the content analysis. Our informers belong to these institutions: Universidade de A Coruña (UDC), Universidad Miguel Hernández de Elche (UMH), Universidade de Vigo (U. Vigo), Universitat de València (UV), Universitat de Barcelona (UB), Universidad de Salamanca (USAL), Universidad de Granada (UG), Universidad Pública de Navarra (UPNA), Universidad de León (ULE), and Universitat Oberta de Catalunya (UOC).The research categories that appear in the discourses can be grouped in four different areas: Antecedents; Experiences; Satisfaction level and Perspectives of future.

Results

The results that we obtained in relation with the categories above mentioned are, briefly, these:

- **Antecedents**: The first SL experiences and projects at class appeared in 2007 in Spain and it's interesting that, in most of them, the person in charge of it didn't do any previous analysis before starting it.
- **Kind of experiences**: The informers showed two preconceived ideas in relation with how they created his/her educative environment with SL. The first one, the learning space inside SL have to be build as a similar and parallel reality, with the same characteristics that it has in the real world; and the second one, they thought of SL as a place for experimentation, creation and expression. On the other hand, all these projects had been done with more or less participative groups of people, but nonetheless groups; and they expressed a different level of institutionalization depending on whether the project initial goal was the research, learning or management.
- **Satisfaction level**: If we speak about the informers satisfaction level in relation with SL as a virtual world it was very positive in general, although in relation with their own projects the agreement doesn't exist: it changes from deception to success. On the other hand, the discourses reveal a great confidence in its future as a tool for teaching and learning and they agree on their great advantages and clear disadvantages. The "virtual presence" as it is commonly referred is one advantage and as disadvantages they mention its high learning curve
- **Perspectives of future**: The informers express the conviction that the promising future of virtual worlds doesn't depend necessarily on SL and, in fact, they think that other free virtual world tools will take this place, sooner or later. Besides, the participants indicate some essential improvements that SL and any virtual world would need to introduce if they want to improve teacher-student and student-student learning interaction. The integration of these worlds with the web 2.0 is one of them, and another one is the necessity of working to create a unique "virtual identity" – this one understood as an identity that we could use in each environment.

Conclusions

The four categories above mentioned in the analysis offer some clear conclusions. Among them, the informers confidence in the virtual worlds learning possibilities, and its spread in education in a more or less short period of time; on the other hand, the fact that a learning space inside a virtual world have to be created in an innovative way, trying to create, innovate and experience in its educative design. The virtual presence constitutes the more distinguished and specific element of these educational technologies.

QUALITY AND INNOVATION IN OPEN EDUCATIONAL PRACTICE

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This paper presents the initial findings from an analysis of an extensive international body of case studies of Open Educational Resources (OER). Our aim was to identify the associated Open Educational Practices (OEP) around the creation and use of OER. This paper is in conjunction with a workshop that is being run at the EDEN 2010 conference. The workshop will introduce participants to the notion of OEP and will provide an overview of a literature review of OER case studies. The vision behind the OER movement is the creation and distribution of free, high quality resources for education (D'Antoni, 2009). To date it has been successful in promoting the idea that knowledge is a public good, expanding the aspirations of organizations and individuals to publish OERs (Caswell et al., 2008) (Atkins et al., 2007). However the potential of OERs to transform practice has not being realised (Cantoni et al., 2004), there is a need for innovative forms of support on the creation and evaluation of OERs, as well as an evolving empirical evidence-base about the effectiveness of OERs. The project builds on the research and development work undertaken by the consortium members, including the UNESCO OER wiki community, OpenLearn (McAndrew et al. 2009) and Olnet (Conole and McAndrew, 2009). At the heart of the project is the notion of Open Educational Practices (OEP), and in particular the articulation of quality and innovation in OEP. OEP are essentially all the 'practices' around the creation, use and management of OER. A state of the art review of the OER field was undertaken, along with a quantitative survey. The aim was to obtain a detailed picture of current practices in the creation and use of OER. We have gathered to date over 50 worldwide case studies of OER. The results and recommendations of the case studies are available on the Cloudworks website (http://cloudworks.ac.uk/). Between now and the EDEN conference we are facilitating a major online consultation process of our finding to date. The consultation will draw on a number of existing well-established communities, such as the UNESCO-OER WIKI members (850 members), ICDE members and EFQUEL members, as well as local networks through the consortium members. Community stakeholders will be invited to share their views on the study result, which will be continuously presented and refined. The information will be a comprehensive presentation of assumptions, methods, and experience. From the review we have the following OEP dimensions have been identified: strategies and policies, QA models, partnership models, tools and tool practice, open approaches, barriers and success factors, innovations, skills development and support and business models/sustainability strategies. The dimensions will be discussed, along with a summary of the online consultation process.

CREATIVE LEARNING WITH SERIOUS GAMES

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Serious Games (SG) are entering more and more the educational world. Games in education make it possible to overcome practical constraints of real-world settings and explore the far greater boundaries of virtual spaces. SGs often exploit narratives, storylines, visual elements and other features common to entertainment games, such as scoring and social networking in order to motivate and engage players in a learning activity. Game Based Learning allows learners to directly though virtually experience the real-world by developing their awareness of consequentiality through doing and experiencing.

SGs provide an environment for active, critical learning, allowing users to explore skills, methods, and concepts rapidly within a safe experiential environment designed with behavioural learning components. The potential learning outcomes include changes in participants' behaviour, knowledge, skills, attitudes, and/or levels of functioning.

In the scope of the proposed workshop Serious Games approaches and methodologies will shortly be introduced and intensively discussed with the audience. Furthermore, the workshop shall focus on feasible methods of using Storytelling for the development of Serious Games Storyboards. The presentation of examples of Serious Games designed and developed within two European projects, e-VITA www.evitaproject.eu and VOICES www.seriousgames.it/VOICES will illustrate the concepts and methods discussed in the workshop.

INDICATORS TO DESIGN COLLABORATIVE KNOWLEDGE BUILDING TASKS IN ONLINE HIGHER EDUCATION

Begoña Gros, Universitat Oberta de Catalunya, Ingrid Noguera, Universitat de Barcelona, Spain

According to Sacardamalia and Bereiter (Scardamalia & Bereiter, 1991; Scardamalia et al., 1992) knowledge is collectively constructed in community. The goals are shared and discussed, and the knowledge is built by the community through the interaction among its members.

The knowledge building success in terms of education depends, greatly, on the type of learning tasks that are proposed. Often, students do not learn collaboratively due to a bad approach to the task. According to F. Kirschner, Paas, & Kirschner (2009) the complexity of the task plays a crucial role in collaborative learning. The fact of working together should be more profitable, or involve fewer costs, than working individually. In knowledge production it is also crucial the responsibility or control over the task. It is necessary for students to acquire an active role in the development of the activity which involves a higher level of control and responsibility over the task.

This change in which the student develops an active role implies, consequently, to reconsider the teacher's role. In this approach, teacher is seen as someone who shares the responsibility over the learning process with their students and tries to guide and facilitates the learning process. Our research addresses the following question: What are the indicators for teachers to design learning tasks for computer-supported collaborative production of knowledge?

In order to give an answer, we are developing a model by means of we try to suggest some guidelines for teachers to design and support knowledge building tasks. It is a cyclical process composed of 4 stages, namely: Task's Contextualization and Environment Configuration, Individual Reasoning and Group Negotiating, Shared Understanding and Collaborative Knowledge Production, and Self-assessment.

The investigation is being developed at the Universitat Oberta de Catalunya, where the whole formative process is virtually supported. The main objective of the experiments is the validation and improvement of the proposed model. The selected research method is the multiple case study that will be combined with quantitative data collection. The first experiment aims to validate the theoretical framework; the second one, pretend to demonstrate the correlation between the responsibility of students and the collaborative production of knowledge; and, during the third experiment, it will be conducted the validation and improvement of the collaborative knowledge building model that we propose.

It is expected to collect useful data to improve the knowledge building model proposed and to validate it during the third experiment. It is also projected to confirm the correlation between the responsibility of students and the collaborative knowledge building. This would indicate that the more responsible students over the task are, higher the collaboration to build knowledge is.

PROJECT IMPLEMENTATION OF THE VIRTUAL CLASSROOMS SYSTEM IN THE UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO (UNAM)

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Project purpose

Offering to both Postgraduate teachers, and teachers of the Open University and Distance Education System (SUAyED) of the National Autonomous University of Mexico (UNAM), a virtual space supported by ICT that allows interaction with students and colleagues both synchronously and asynchronously, allowing the development of individual and collaborative learning activities, even when they are in geographically distant locations.

Justification

This project aims to meet certain UNAM guidelines related to ICT use, teacher's and student's mobility and increased academic offerings; these guidelines are reflected in the Rector's work program, and are addressed to both the 40 Program Graduate Coordinations (including 255 graduate programs, over 60 participating academic institutions and 23 875 enrolled students) and to the SUAyED (23 degrees in open mode and 19 in distance mode, taught in 14 academic institutions, and 11 education centers located throughout the country, with a population of just over 14 000 students).

Development

The Postgraduate Studies Coordination (CEP) together with the Open University and Distance Education Coordination (CUAED) evaluated various technology platforms that enable the realization of synchronous and asynchronous academic activities, such as Webex, DEN, Microsoft Office Communications Server, Nefsis, Open Meetings, Vyew, Dimdim, Elluminate, Sakai, .LRN and Moodle.

During the selection process of the applications the following aspects were taken into account: minimum technology requirements for its use; tools for reporting information and developing collaborative work; ability to broadcast video and audio; options to share file and applications; 24 hours x 365 days a year availability. With the aim to allow the teachers synchronous and asynchronous interaction and the flexibility to develop their work.

In order to combine the selected applications (Elluminate, Open Meetings and Moodle), a website was developed where teachers can apply for virtual classrooms, and then access them with a username and password. On the other side, students may find the virtual classroom of their teacher by name in a catalog, without the need for a user account. Teachers and students also have the technical support line for troubleshooting and manuals operation for the virtual classroom.

The website address is http://aulasvirtuales.cuaed.unam.mx.

Conclusions

Less than a year after the implementation of the Virtual Classroom in UNAM, by means of joint efforts between CEP and CUAED, the use of such applications was widespread, enabling 2831 teachers to effectively enjoy technological and pedagogical skills. This has allowed the delivery of virtual lectures, and development of other academic events, such as counseling topics, joint research, lectures, thesis advising and professional exams. However, the obstacle to overcome is the reluctance of some sectors of the teaching population, who refuse to use the benefits of the new Technologies.

The use of virtual classrooms has achieved that a widespread population without the means to continue their studies at secondary and higher education, now have the opportunity to complete their training, allowing in many cases a better quality of life for themselves and for their families and positively impacting their local and regional community.

THE USE OF COMMUNITIES OF PRACTISE TO CREATE STORIES FOR SERIOUS GAMES – EXPERIENCE OF THE EUROPEAN PROJECT E-VITA

Pilar Escuder, Roger Esteller, Joaquín Segura, Universitat Jaume I, Spain

Context

The co-operation project e-VITA ("European life experiences") is framed within the Lifelong Learning Program of the European Commission, and has been co-financed by the Education, Audiovisual and Culture Executive Agency. In this project 7 institutions propose to create a methodological and pedagogical guide that can be used to produce Serious Games with the aim to allow a transfer of experiences; when people (mainly children) play can learn not only historical facts, but also experiences and feel livings as much as possible. By this way, through this educational game, learning of the past or others contents are possible with the aim also to understand better the present.

In this project, the story of the games has been produced through the communities of practices built by seniors that had lived a transnational or intercultural experience. In this communication, we want to show the methodology used, and also the challenges that had to be faced and the solutions found in the process of construction of knowledge by the communities of practice.

Communities of Practice

In the e-Vita Project, and for any other institution than wants to build a historical or living-experience game, it is need the construction of the script of the game (storyboard). This script has to be faithful to the history. Because of that reason, we have to consider reliable historical references and also choose situations and experiences obtained from the very same people that lived them.

The communities of practice are the perfect context to generate this lived or experiential knowledge: the elderly can take part in groups and in an informal way they can generate knowledge. However, the creation of these groups and the creation of content is not easy. In this communication we want to explain this process based on the own experience; the creation of the group, environment and facilitator.

Games production and learning

The stories must be reconstructed and mixed based on the final aim: to develop a storyboard that will be used to implement the game. This process is neither immediate nor easy, because it is influenced by the pedagogic requirements and the type of the game that will be produced.

During the development of this methodology the difficulties and possible solutions are presented, depending on the type of game (experiential, narrative-based, problem-based, exploratory) the main aims of the game (living experience of a past Europe) and other difficulties transforming the story (usually lineal) to a funny game that get the player caught.

PROFESORES, ESTUDIANTES Y EL DESARROLLO DE COMPETENCIAS EN TECNOLOGÍAS DE LA INFORMACIÓN Y LA COMUNICACIÓN (TIC′S) EN AMBOS ACTORES PARA LA GENERACIÓN DEL CONOCIMIENTO

Sara Lorelí Díaz Martínez, Carlos Lizárraga Celaya, Benjamin Alonso Barraza Celaya, Universidad de Sonora, Spain

In the field of education, it happens that traditional learning environments focused on the teacher, are transformed into student-centered environments in order to achieve significant learning. In these environments, the learner plays an active, dynamic and interactive role: generates the information as build the knowledge and assimilate it. The teacher facilitates learning to guide the student in the construction of it and seeking to establish more flexible and personalized environments to support the development of competences, creativity and innovation in students. It also incorporates the web as a tool to support the development of learning and this implies a reconceptualization of both, student and teacher work. The Web is just a platform and users are who controls the information in it. We are moving into a new form of the information society, defined by changes in the use of technology and ways of knowing and learning are developed; there are concerns in reach for new ways to incorporate those changes in education, due to:

- a change in the essence how knowledge is created and organized and
- a cultural change that comes from the use of information technology and communication, called cyberculture.

These changes require an appropriate inclusion in the educational process so it responds to the demands of knowledge economy, e.g. the concern of developing young people competence to act as innovators and creators of that knowledge. Also, is necessary to train young people to operate effectively in digital environments. We are witness of transformation about Internet users controls contents and use them, including Web 2.0 applications. Users noticed there is a wide variety of Internet sites that offer tools and services that engages, specially to young students: chat, send text and multimedia messages to mobile phones through the Internet, seeing their partners if they have webcams, phone chat through network with other members of virtual communities established there. This implies that professionals must be efficient in digital environments to bring benefits and better services to the community where they live. Also, these competences are required on students, but what kind of competences should be developed in teachers who lead the development of knowledge and competences in their students? According to UNESCO (2008)[1] there are four general headings: Policy and vision, ICT Basics, enhanced knowledge and development of knowledge.

This job presents strategies to develop both competences: in students and required in teachers to achieve student's competences in Universidad de Sonora (Mexico). Because learning is also developed through a process of social interexchange, students seek to find how to make contact with, collaborate with and learn from themselves and others. This experience includes about 4,000 students in the course of Introduction to the ICT's (Introduccion a las Nuevas Tecnologias de la Informacion y la Comunicacion). The strategy used for the integration of software tools (especially web 2.0) is project-based learning. Those projects are created in a convergence of theoretical models and the knowledge of teachers with multidisciplinary areas under current and real topics that allow students to have a fresh touch to the events giving rise to projects at the same time that "removed" from the context of their class performances to begin the implementation process skill to be transformed in "competence". To achieve the development of those, a training teacher education program is implemented that develops. It is for multidisciplinary working group where teachers are from Biology, Agriculture, Engineering, Mathematics, Physics, Computer Science, Accounting, Administration, Psychology, Communication Sciences, Social Work and Educational Innovation.

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[1] Unesco (2008). UNESCO's ICT Competency Standards for Teachers Towards ICT Skills for Teachers.
Online: http://cst.unesco-ci.org/sites/projects/cst/default.aspx. Last review: January 2010.

DIGITAL LITERACY WORKSHOPS AT CITILAB: FACILITATING LEARNING AND INNOVATION

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This paper describes the design of the digital literacy workshops offered at Citilab Cornellà and its evolution. Citilab promotes social innovation based on what has been learned from the innovative practices of digital culture. Its members are plain citizens or "citilabers". It has currently 4200 members, and since it offers a wide range of services and activities, it also has very diverse audiences. The audience of the workshops discussed here and designed to promote citizen participation in the knowledge society ranges from workers to professionals with ages between 25 and 60 years. 90% of them come from the city of Cornellà. In the digital literacy workshops, the two main audiences are children (470) and seniors (687).

The digital literacy workshops have experienced major changes in a relatively short time. Reasons for this are the fact that Citilab wanted to stress the participatory and peer to peer aspects of the learning processes of digital literacy workshops, i.e., avoid as much as possible the master class format because it was felt that it introduced passivity in learners. And passivity is the works against the innovation attitude.

The workshops were designed in a first stage as a simple transfer of technological skills, barely considering issues such as teamwork, methodology, or the interests of users. After the first year, the team decided to rethink this approach, for various reasons: the workshops did not result in groups that in turn proposed and developed projects, the approach to the sessions was too academic, and there was little connection with participants' deep interests. Learning had became a matter of covering a simple list of skills and levels which, once achieved, allowed participants to surf the web and perform simple tasks. That didn't allow them to understand the power of social networks or other cooperative possibilities of technologies that allow more intensive knowledge sharing which, in turn, it is a much more exciting and enriching process.

Thus, during the last quarter of 2009 the workshops were re-designed and, once the quarter ended, the workshops were re-evaluated and re-designed again in a typical case of the Citilab design method. A new format was designed in order to let the learning process make emerge groups able to develop and lead their own projects. The new proposal, currently in use unfolds in three wide levels: "Beginning", "Connecting" and "Learning groups". Each one lasts 12 weeks. This has made the whole process longer for users but provides more time for participants to embrace the tools that were put into their hands, start thinking about what they want to do with them, reflect about the learning process and start the first projects.

The re-design of these workshops is an ongoing process that benefits from the shared learning among Citilab facilitators and teachers who merge their experience with the participants'; the active participation of users is key to the development of these workshops, and it is expected that this co-design process, which is an innovation in itself, leads to innovative citizens. User driven innovation, co-design methodologies and intensified internal knowledge sharing are the key actions and background knowledge that have facilitated it all.

The successive changes show an emphasis on the design methods that is promoted in all activities of Citilab. That is, a continuous iterative design and co-design process. Without doubt, the best learning we have done in the educational area is that it is not possible to do projects with users without their active participation in the design. The evaluation of the process is to be cast in terms of participatory and networked learning.

THE IMPACT OF ONLINE LEARNING COMMUNITIES – USE OF THE LANGUAGE IN TEACHING AND LEARNING – ANALYSES CARRIED OUT AT ROMA TRE UNIVERSITY

Antonella Poce, Università Roma Tre, Italy

The role of language within learning communities

The problem investigated here is to identify which are the special features of online language of communication, within online communities of learners.

To this aim, forum interactions carried out at two online modules, supporting the face-to-face one of *Experimental Pedagogy and Museum Education* – course of *Primary Education* – University Roma Tre, are analysed, taking into consideration typical aspects of asynchronous communication (Crystal, 2001).

Internet allows the existence of communities made of subjects coming from all over the world, who share the same interests in learning and who can meet and grow together. Either online or not, any learning community can be referred to the one Wenger and Lave, in 1991, for the first time, called "community of practice".

Hypotheses, methodology and instruments of analysis

The present work, besides describing the main peculiarities of online use of the language, studies the characteristics of forum interactions carried out in the online modules referred above. The hypotheses of research to be tested were conceived as follows:

Hp1= If a peculiar and finalised kind of language is developed within an online community, it is the consequence of the creation of a community of practice and the use of the same kind of language implies particular aspects of social interactions.

Hp2= If social activities on the web are developed through a peculiar use of the language, learning attainment is influenced.

To develop the above research issues I carried out mostly qualitative analyses. First of all, driving back to the classification of the key functions of the language identified by Fairclough (2003), I studied the postings of the students of both modules to see which were the functions adopted. This operation allowed to focus on the aim of interactions and to understand better the relation between social context and use of the language. Then, having pointed out some peculiarities of the tool of communication in use in the forum areas, I registered the frequencies of the above features. This procedure has been carried out taking into account the results of a previous work conducted by John Paolillo in 1999.

Findings

The analysis that has been carried out on the two online modules mentioned above represents a preliminary study and there is space for development of further investigation, but, according to the findings, it emerges that a peculiar and finalised language has been performed within the students community and that social interactions exist because of a mutual engagement, whose strength justifies the community itself. The use of the Internet language, moreover, seems to help students in learning, because, through it, they search and obtain responses to their doubts and difficulties.

M-ILIAS, STUDYING IN A MOBILE ENVIRONMENT

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The application of mobile devices causes fundamental changes in the methods of organising studies and study habits as well as in the manifestation of personal and social competencies. Studying, which can be regarded as a conscious, expedient, more or less systematic acquisition of knowledge and skills, also includes observable studying habits and outside conditions apart from the internal procedures of information processing. In the surrounding environment for study, the productive methods and elements of organising teaching and learning change

Dennis Gabor College (DGC) is just experiencing a paradigm shift concerning the development of online content. ILIAS already contains approximately 80% of "traditional" content (PDFs and PPTs) and 20% of SCORM compatible ELearning modules. In September 2009 the E-content Development Group was set up to focus on creating quality ELearning content with Adobe eLearning Suite, a robust, SCORM-compatible eLearning content development software. All these newly created packages will have mobile outputs especially designed technically and pedagogically for mLearning.

DGC is just taking the first steps towards developing mobile content for ILIAS. Content developers and teachers examined the technical capabilities of ILIAS and the scenarios of applying mLearning. DGCs general policy is to use suitable content to different learning situations. E.g. content for the subject Commercial Law may be a simple PDF document, while Project Management Software requires an interactive SCORM compatible learning module with animations, screen capture videos, etc. Thus mLearning will find its way in self-assessment, utilizing those empty hours, while students are travelling from or to school or home, checking subject forums for answers to their questions or contributing to groupwork, and wikis.

DGC collects feedback from the students about the quality of education in every semester for each course. In these surveys information was collected about the ways of accessing the Internet and accessing ILIAS this year. The result can be seen in Table 1 and Figure 1.

Table 1   ILIAS access in DGC

PC	100,00%
Laptop + WiFi	28,57%
Laptop + mobile modem/telephone	14,29%
Mobile equipment	9,52%
Other	0%
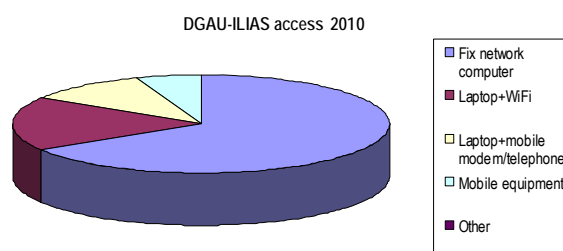
Figure 1 ILIAS access in 2010

Multiple answers were allowed. Table 1 shows that every student used PCs and less then 10% used mobile equipments. This is equivalent with general customs of Internet users.

The development of multimedia content and tests based on Interactive Evolutionary Computation (IEC) and on fuzzy logic are in progress, and re-design and the re-structuring of ILIAS LMS based on the M-learning principle is on its way.

LOW BUDGET M-LEARNING – MLE-MOODLE CASE STUDY

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Overview of MLE-moodle

MLE-moodle is a freeware plug-in for the open-source Learning Management System (LMS) Moodle. With MLE-moodle you can enhance your eLearning system to mobile learning and you can learn either with your mobile phone or with you personal computer or notebook.

MLE-moodle allows creating following learning objects:

1. The core Moodle features on the mobile phone - Moodle lesson; Moodle quiz; Moodle assignment; Moodle resource; Moodle forum; Moodle survey; Moodle choice; Moodle wiki; Moodle database; Moodle instant messaging system; Moodle glossary.

2. New features – Flashcard trainer; Mobile Learning Objects (offline learning); Mobile tags / Location based services; Mobile community; Mobile repository.

You can acquire create materials by your mobile device web browser (you need internet connection) or you can install widget on your mobile device, download materials and acquire them where you like without need of internet connection. One big plus of MLE Moodle is that you can create e-course and m-course on same time. Student choice is would he/she like to use computer or mobile device for acquire those materials. There are no specific demands to the mobile phone. So there is possible to use MLE-moodle with most common mobile phones nowadays.

MLE-moodle in use – case study of course "Internet" for 1st year students

The aim of the course along with familiarizing 1st year students with Internet construction, ISO OSI model, important protocols etc is also to give an overview of user problems: netiquette, copyright problems, Wen 2.0 tools etc. Course materials are organized in 2 levels and are modular. First level 3 modules are compulsory, from 4 modules on second level students can choose 2 modules. There are for compulsory home tasks: audio summary of one theme, compiling materials for one theme on additional list of themes on second level materials and review of two peer materials. Plus tests on basic concepts in all modules.

In given case study we compiled MLE materials for one of the three compulsory 1st level modules with a small test and asked students to try it on a volunteer bases and post a letter with his/her opinion.

About 10% of 70 students tried the module and expressed their opinion. Summary of opinions: it is interesting case, everything works surprisingly well, but as we have access to Internet with our laptops almost from everywhere, then we can not see the real situation, where this kind of tool really helps. The interface on a laptop is much better than the one in a phone, even with phones with large screens. First answer with a mobile phone to the question in the course forum came with an hour, so there are already students who using mostly mobile phone to connect with Internet.

Conclusion

MLE-moodle is easy to use solutions both for teachers and students. People using mobile devices more and more nowadays for connecting to the Internet and MLE-moodle helps to satisfy demands of those people. Big plus for MLE-moodle is that it is open source and do not demands any extra resources but can be simply install as a extra module to the institution moodle environment.

INNOVATIVE MEDIA APPLICATIONS AND THE SOCIAL WEB IN CEDDET

Ricardo Cospedal, CEDDET Foundation, Spain

This presentation tries to summarize CEDDET Foundation results and conclusions when applying WEB 2.0 approach to our activities. The key words in this new way to look at our activities are **collaboration** and **group achievements**. The bases of our new approach are sustained on the new possibilities that the Web 2.0 offers to education.

Introducing those tools in online courses or virtual networks need a previous and in deep analysis of the benefits and the changes that will introduce in the philosophy of our daily job. Besides that, it has been crucial, the adaptation of the tools to our needs and study in deep how to fit them in our strategy, philosophy and activities.

Tutors and students are all involved in the new approach that requires a cultural change that was especially important in CEDDET's experience since we do mainly work with the public sector. The main challenge to be overcome was the "cultural change" of using a different approach in which participants in the training programmes would have the opportunity of *giving* as much as *receiving*.

The methodology and activities needed therefore some changes as well. The introduction of new collaborative activities had to be justified and all related processes to be adapted. Some initial decisions were taken in important issues such as the evaluation of group activities or confidentiality.

The main findings after 2 years may be summarized as follows:

- It is possible to get final "products" using collaborative tools with an added value much higher than that got through individual works.

- The fact of having a multicultural approach and different institutions from different countries working together makes possible an international collaboration that otherwise will be quite difficult to obtain.

- Keeping the discipline in this community is much more demanding in terms of time, coordination and leadership than traditional online courses.

- It is important to keep in mind that benefits of collaborative work must be not only proposed but somehow incentive.

As a conclusion we may state that in our experience this Web 2.0 approach to training has no return point. For CEDDET Web 2.0 has been a change driven mechanism that has decisively contributed to improve our training programmes.

THE BYGGWIKI EXPERIENCE: DESIGN AND USE OF WIKI IN VOCATIONAL EDUCATION

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Statistics show that one of three Norwegian teenagers drops out during the three-year Upper Secondary School Education. Students in vocational occupations are especially at risk, and most of all the first-year students.

This was the situation at Øyrane upper secondary school, a school for vocational studies and training in Western Norway. Having heard about Wikipedia and the wiki technology's embedded opportunities for accumulation of information and knowledge building, the school decided to initiate a wiki project, directed at the first-year students in the "Building and Construction" (B&C) Programme. The aim was to offer the students in this programme (many of them with reading and writing difficulties) a digital resource, or a digital dictionary, which would explain the most relevant and frequently used B&C-terms in a short, simple and precise way.

The project, which is referred to as the Byggwiki project, was launched in January 2009. Although originally initiated as a one-year development project, the project is still running and will persist at least until June 2010. The findings presented in this poster, based on data collected through observations, field notes, meeting reports, wiki articles and wiki logs, should therefore be assessed as preliminary.

While the main objective of the wiki project was to develop an online illustrated dictionary, an additional objective was to improve the concept building of the B&C students by forcing them to write, read, comment, collaborate and ask questions. An important premise was therefore to involve both teachers and students in the content production (of wiki articles). So far, the project can be described in three (distinct) phases (Phase 1 (Spring 2009), Phase 2 (Autumn 2009) and Phase 3 (Spring 2010)), all of them unique when it comes to participants, goals, roles, article layout, content framing, etc.

The project is still in progress. So far, the preliminary findings are as follows:

- Article production must be done in a class setting where the teacher can organize the training and teach the students.
- Rules, describing the teacher and student roles and how articles are supposed to be written, must be designed and often redesigned. All participants must have a shared understanding of these rules.
- The teacher needs to participate and engage in the production of articles.
- Students with reading and writing problems are able to produce a wiki (or an illustrated online dictionary), provided that the articles and production process is designed for this specific group.
- Creating a wiki is time consuming – the wiki must not be seen / used as something added on, but must replace some current work / work tasks (for instance traditional written assignments).
- The teacher must be inscribed in the wiki if the wiki shall sustain.
- The wiki must be inscribed in the study programme / competence aims if the wiki shall survive.

COLLABORATIVE KNOWLEDGE-BUILDING – THROUGH EDUCATIONAL BLOGGING – FOR TEACHERS (IN HUNGARY)

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Educational blogging seems to be one of the most prosperous and useful web 2.0 applications in education. Based on latest available data we estimate that there are approximately half a million educational blogs (in English alone). Despite of the popularity of such sites, we have found a small amount of articles/papers about pedagogical aspects of educational blogging during a wide-ranging review of refereed articles in the literature. There are some detailed explanations of using blogs in higher education (Williams, 2004; Farmer, Yue and Brooks, C. 2008). There are a lot of earlier research projects focused on maintaining and building online communities, and some of them are closely related to our topic. We found a description of effective online learning communities for teachers dating back to 1999 (Leask and Younie, 1999). The authors emphasized that "each user has their own personal narrative with technology". This is important because different attitudes and relations of users depend very much on these prerequisites. In their study they described a topology of users from phobic to highly literate. The creation of an educational blog (and the "readers' community") does not require high-level IT-skills, so it could not be a barrier for teachers. However, successful online communities and collaborative learning outcomes need careful design (Chen, Wang and Hung, 2009). If we would like to support (online) teachers' implementing ICT and web2 tools into their everyday practice, careful planning and realisation is required. Describing network learning M. de Laat et al. (2006) emphasize, that "the future research might focus on the possibilities for supporting a more genuinely collaborative focus in network learning".

In this paper we describe the framework of our current research about edublogs (i.e. educational blogs), present some examples of Hungarian edublogs (as 'best practice' in our country). This paper also reports the first findings of research and an in-depths study about educational blogs in Hungary. Our main hypothesis is that using educational blogging can support this process with measurable level. Drawing on the social constructivist educational theories of Vygotski, we found the following pedagogic (1-4) and technical (5-7) benefits of blogging for teachers:

1. It supports transforming the teacher's role in student-centred learning environment – according to constructivist theory.

2. Edublogs provide a community for teachers for their professional development without technical barriers.

3. Edublogs provide a forum for teachers for discussions of educational subject materials and developing new approaches about subject topics.

4. Teachers can improve their assessment methods and tools based on students' activity.

5. Using edublogs is an easy way to publish the collected educational materials (texts, videos, sounds and links) through web without HTML or CMS knowledge.

6. Using edublogs they can easily integrate different multimedia contents in a web-platform.

7. These benefits are not widely obvious for the pedagogical community, and other factors also play a role in edublogs becoming more acknowledged and accepted.

Our first results show that educational blogs for teachers (and edublogs of teachers) are useful and valuable web2 tools for supporting their professional self-development, communication and classroom teaching. However, the main obstacles of using edublogs by teachers are the lack of time, lack of language knowledge (unable to use English or German educational materials), and "some conservative approach" about teaching methods. Further research needs to be done to assess pedagogical values and impacts of reading and writing edublogs, and finding the adequate methods of implementation edublogs into teachers' practice.

We are firmly convinced based on our first results that the educational blog is a web 2.0 medium that really makes an impact!

Acknowledgements

INTEGRATING ON-LINE JUDGE INTO EFFECTIVE E-LEARNING – EDUJUDGE

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EduJudge System Overview

The EduJudge system consists of a distributed asynchronous e-learning system based on the integration of the UVa On-line Judge (http://uva.onlinejudge.org/) as well as other e-learning tools, such as QUESTOURnament and crimsonHex, into a more interactive, competitive and motivating learning environment. This system has been developed in the context of the EduJudge project (http://www.edujudge.eu/), aimed to bring together the Moodle learning platform and the chance of proposing programming questions, which are obtained from a special repository and need to be evaluated by the aforementioned judge.

In light of the above, apart from Moodle other components take part in the EduJudge system:

- The Uva On-line Judge is a programming trainer created in 1995 by Miguel Á. Revilla with the aim of preparing students to take part in programming contests all around the world. Currently, it counts with more than 90,000 users and more than 2,600 programming problems, and so far, it has received almost 8 million of submissions and has supported about 250 programming contests.

- The QUESTOURnament module has been designed as a new activity module to be supported by Moodle. It encourages students to compete among themselves trying to solve a set of challenges within a time limit. A new Moodle question-type has been developed for the system to be able to undertake an external evaluation within programming contests and competitions.

- CrimsonHex is a repository of Learning Objects (LOs) with a suitable collection of validated programming and algorithmic problems (EduJudge questions) that are stored as learning objects and can be obtained searching for different features.

Supporting a Contest with the EduJudge System

Both the problems repository and the UVa On-line Judge have been integrated into the open-source e-learning platform Moodle, thus the EduJudge questions and the evaluation through the Judge can be supported as an activity within a Moodle course. Furthermore, the QUESTOURnament tool, which has also been integrated into Moodle, permits undertaking contests among learners in which the challenges might contain the EduJudge questions.

Making use of the different features, teachers are able to create QUESTOURnament activities in which there could be one or more challenges with EduJudge questions to be solved by the students in a straightforward way. These students will be provided with the mark obtained for their submissions in order to keep under control their knowledge level regarding any subject matter and to track the ranking of qualifications of the other classmates.

Conclusions

The EduJudge system allows learners to work both in the classroom, with the use of ICTs, and at home in order to improve their mathematical and technological skills. Moreover, this system encourages learners to be more motivated on account of the competitive environment provided by the supported contests.

The EduJudge team has designed the system with a long-term vision trying to provide new possibilities to both the e-learning platform Moodle and the asynchronous evaluation system. Therefore, the EduJudge system would be used in other fields, such as the languages learning or other tasks in which an external evaluation and feedback are required to undertake a learning process.

KEEPING TRACK OF LEARNING: THE USE AND DESIGN OF A NEW UNIT IN INFOMENTOR, A SCHOOL INFORMATION SYSTEM

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Introduction

In this project, which was funded in part by the University of Iceland Research Fund, the use of a school information system, InfoMentor, was studied. InfoMentor is a web-based solution adapted for compulsory schools with a variety of modules aimed at supporting teachers and school administrators and improving communication with pupils and parents. The main focus was on the introduction and use of a new unit in the system, *Assessment for Learning* (AfL), which is intended to encourage professional exchange of information among teachers, promote communication between teachers, parents and students and strengthen individualized learning.

The AfL unit was developed in co-operation with the Ministry of Education, Science and Culture. The aim was to create a tool which could give teachers a better overview of learners' status, provide learners with information on where they are heading in their studies and encourage learners' responsibility. Students and their parents have access to AfL in each subject. In addition, it is possible to create a simple educational contract where individual students, in co-operation with their teacher and/or parents, set themselves certain goals.

Method

The study was an action research project in one school in Reykjavík with meetings, presentations, courses and preparation of course material for school personnel and brochure for parents. Data were gathered with both quantitative and qualitative methods including interviews with three school administrators, three teachers (teaching one class each in grade 3, 6 and 10) 18 students (6 from each class). Other teachers in the school and parents of children from the classes involved completed a questionnaire.

Results

Teachers and parents were generally pleased with the InfoMentor system. Teachers reported increased use of the system between years and they were using more tools in the system. The same was true for the parents but some complained that teachers should use the system more and/or there were inconsistencies in the level of usage between teachers. Administrators, teachers, and parents thought that the new unit, AfL, would strengthen professional work of teachers, increase overview and consistency in teaching. The participants also thought that students' responsibility would increase with visible learning objectives which would encourage them in their studies. Administrators were positive towards the initiation of AfL because experience showed that the teachers were usually quick in adopting new innovations. The teachers thought the goal of the AfL was clear, but many were not satisfied with the initiation process. They called for a plan for the process and complained that there was a lack of professional discussion among the teachers. They also thought that the administrators should have had more direct communication with the teachers. The administrators agreed that they should have given better direction in the initiation process.

Conclusions

The InfoMentor company could help more in preparing the initiation of new units in schools in cooperation with the school management by emphasizing the factors that seem to be important when introducing innovations to teachers including knowledge creation, motivation, sharing responsibility and cooperation.

SYSTEM INTEGRATION FOR VALUE-ADDED SERVICES IN E-LEARNING

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Using existing technology to improve the user experience

In modern Open Source LMS landscape, there is a wide availability of different products, each one with their qualities, but also with their peculiarities. In our experience, none of the available Open Source LMS has all the tools needed to a modern Learning Environment. In order to achieve the best user experience – students and teachers in our context – the adopted strategy was to integrate different services into our main LMS, rather than developing new features into it from scratch. After evaluating different LMSs, we decided to integrate OLAT, a Java Open Source LMS platform designed by the University Of Zurich and developed by a growing community of international e-learning specialists, with external services provided by other Open Source tools and services, with minimum customization of the original source code of the various software components.

System architecture and scalability

In addition to the standard LMS architecture the system has some new integrated functionalities provided by external servers and services:

- Centralized user provisioning with Virtual LDAP server querying different centralized Users Databases
- Videoconferencing service with cross-platform Flash / browser client
- Tracking and monitoring service, based on Java Agent elaboration, RDBMS storage and graphical UI for the results

For each added-value service we evaluated, and chose, Open Source software, except for the Videoconference Service.

The centralized user provisioning permits to have a single login for multiple systems and services, synchronized on all systems in case of an update of user data.

The Videoconference service adds a synchronous experience to the asynchronous e-Learning model.

The Tracking service adds a great support to the evaluation process of students' work.

The different services are able to run together in the same physical server, but, as one service load increases, it can be put into a separate server, leading to high scalability.

The services are also shared between multiple LMS instances, decreasing the administration costs and the overall Total Cost of Ownership.

HOW DOES YOUR (DIGITAL) ORCHARD GROW? A LOOK AT THE PROJECT'S FIRST YEAR

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The Digital Orchard (Hort Digital in Catalan) is a project developed at Citilab-Cornellà (http://en.citilab.eu) with the support of the i2CAT Foundation (http://www.i2cat.cat), whose objective is to help high school teachers use technology in innovative ways in the classroom. It has been conceived as a Living Lab for education, focused on secondary education, with plans to expand it to other levels and areas. In this space, teachers and facilitators work together to propose, discuss and test innovative approaches to using technology in the classroom, with a focus on Web 2.0 tools and personalisation of learning. The main driver behind the project is to help in closing the digital gap between teachers and students, help teachers realise the potential of new technologies, and support the new policies being issued by both the regional and national governments in Spain. Both the Spanish and Catalonian governments are currently in the process of revising their educational policies; one of these policies is aimed at the "digitalisation of education": providing resources to schools, teachers and students, in order to take advantage of the new technologies available, such as digital whiteboards, digital textbooks and netbooks. The eduCAT 1x1 project, as it is known, follows other major initiatives around the world, based on the same concept: provide each student with access to a computer, and other ICT resources in the classroom.

 The Digital Orchard project was proposed as a space in which teachers could explore the possibilities of technologies and Web 2.0 applications in the classroom, by developing innovation projects in a collaborative environment. The project was inspired by the MediaZoo at the University of Leicester (http://www.le.ac.uk/beyonddistance/mediazoo). The metaphor we chose, an orchard, aims to illustrate the different types of tools and users, and the way the former can be incorporated into the users' toolkits – the Orchards. The orchard metaphor itself points to another important foundation of the project: the personalization of learning through the development of Personal Learning Environments, PLEs. We have been working on this area of research since 2008, as part of a collaboration agreement between Citilab and the Beyond Distance Research Alliance at the University of Leicester, UK.

The Digital Orchard is based on a Living Lab approach: users are involved in all stages of the process, and innovation is user-driven. In this context, tools and support are provided to the users, and the learning is based on projects, proposed and developed by the users. Participants can also work in groups, synchronously or asynchronously, hold discussions, and share ideas and content, through a virtual space based on Ning, a free, Web 2.0, social-network tool. Our goal is that, in this way, the teachers will create bit by bit a "toolkit", a set of personal learning and teaching support tools – their Digital Orchard. Previous research has proposed the use of Web 2.0 tools as "hubs" for the creation and management of Personal Learning Environments, and in this case, teachers are creating their own PLEs, so they can use the acquired knowledge and skills in their teaching, and furthermore, guide their students in building their own PLEs.

So far, very interesting ideas have been proposed and developed: for example, social networks (based on Ning) to allow teachers and students to share files (documents, videos, pictures, music) through the social network, and comment on them and start discussions on the forum; Wikis for collaborative creation of content for the subjects; student-created videos for demonstrating physics and chemistry experiments, shared through a Youtube group; and dossiers based on Google Docs, through which the teacher can provide feedback and suggestions.

The project entered the pilot stage in October 2009, and will continue during the 2009-2010 academic year.

TECHNOLOGICAL INSPIRATION IN ADULT EDUCATION

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It is a key issue to realize that current educational system is focused on preparing learners for everyday life and deal with problems in the modern world. Therefore, education has to adapt to changing conditions – it has to follow all the changes including quickly developing modern technologies. Information communication technologies (ICT) not only foster learning in traditional educational institution environment but also help learners face the challenge of lifelong learning.

During the last decades there have been many discussions on lifelong learning, where the main participants are adults, and much attention has been drawn seeking to intercept new technologies in education, develop initiative, computer literacy, communication and etc., and provide people with possibilities to adapt to changing environment and new technologies. Only constant, accessible to everyone, meeting the needs of the majority development of qualification and acquisition of new technologies and changes can ensure successful and long-lasting activity. When talking about the acquisition of innovative technologies and their usage, adult educators are still a friable part of the society.

Project "Tech-Connected Teacher", which is presented in this article, ensures today's actual issues and help to develop, improve and access learning and teaching as life long learning process while suggesting e. learning tools, methodical material, courses, and other sources available online. This article presents the technologies associated with pedagogical innovations that can lead to diversification of educational material and at the same time provide possibilities for adult educators to learn how to use innovative technologies. These technologies have been analyzed, selected, presented to adult educators from different educational institutions in project partners' countries during the two-year project "Tech-Connected Teacher" which is developed from 2008 under Grundtvig's sub-programme of Lifelong Learning Programme.

In purpose to develop project activities and achieve qualitative results successfully project beneficiaries' institutions, in all 19 education centres in each project partner's country, were invited and actively involved in the project development, analysis and evaluation process. The survey according which the real situation concerned with the use and knowledge about information technologies in adult education was clarified, the needs and wishes were expressed by adult educators. According to the results of the survey, national and international analysis and research were done in order to choose the most useful and suitable information communication technologies (ICT) for improving the availability and quality of courses for adult educators. Seeing to satisfy the demand of the methodology material and explanation on how to use technologies, the methodological material was created in English and translated into Lithuanian, Italian, Polish, Spanish and Greek. A practical guide and a manual video on e-learning material were also created in order to show how to use innovative technologies and tools step by step.

Methodic and video e-learning material is designed for adult educators who would like to integrate innovative technologies in their work and find out about the possibilities of e-teaching. The materials were developed for teachers who seek to organize their lectures in a new way and make them attractive. Technologies appear to be a prerequisite for this kind of lifelong learning which should become the foundation of the knowledge based society. The material developed provides some of theoretical background and practical guidelines for adult educators in purpose to equip them for the challenges that they will face as roles change from "traditional teacher" to "technologically connected teachers".

All these recourses were used during international courses and seminars for adult teachers and were based on cascade methodology. The trainings were organized together with evaluation, dissemination, exploitation and valorisation of the project and its results. The information about the project, its members, results achieved and other useful information for educators is available in the project's website www.tcteacher.eu.

PRECONDITIONS TO IMPLEMENT E-READERS IN HIGHER EDUCATION

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In this contribution we focus on e-readers and we will look at what conditions should be met when we use e-readers in education. More concrete, this contribution addresses the question of what framework we best consider to introduce e-readers in higher education. We do this from two perspectives.

Firstly, we discuss a number of technological features of e-readers. Secondly, we discuss the educational perspective from an educational framework, after which we look at the point of view of the student and lecturer. Finally we make an overview of organizational and administrative advantages and disadvantages. From this analysis we make a list of possible conditions for the implementation of e-readers in higher education.

We conclude that e-readers offer opportunities to support learning, at least if the educational context is interpreted sufficiently "wide" so that apart from processing the materials presented by the lecturer, self-construction of content by the student is facilitated. Maybe an e-reader is the most likely to support informal learning. Here the student can autonomously choose and download the desired content; the result of the process of 'critical reflection' on the selected content may then possibly be included into a formal learning process.

Secondly, this generation is educated with mainly studying printed study material. Therefore, it is recommended to consider the e-reader as a complement rather than to replace the printed study material. Furthermore, we have to consider the fact that the purchase of an e-reader is (still) quite pricey for students.

Thirdly, we focus on possible implementation issues from the perspective of the lecturer. How do we convert the course material to ePub is here one of the central questions. The lecturer might have to rewrite parts of the material in order to compensate for structural and layout limitations. Since it is advisable that the course material's layout is limited, the materials are best checked on layout by a technically literate person. This has to happen without hurting the autonomy of the educator. The lecturer must also be prepared for a possible "open" use of the materials, wanted or unwanted. Even with a DRM solution, materials might spread easily.

Finally, it is also important to consider the organizational implications before the introduction of the system, both on the positive and the negative. For instance, one also has to extensively look into a proper business model. The digital availability of study material presents a challenge to develop a financial model that allows students to download personalized course material, but make sure that the overheads are covered. A possible tool is Adobe DRM, this application allows limitations in the number of times a document is downloaded to a device, present the download in a password protected environment, … . But maybe it is the right time to consider a more "open source" approach to course materials.

ON THE WAY TO EFFECTIVE INTERNET TECHNOLOGIES TEACHING

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Introduction

Internet brought a lot of new possibilities to everyday life. For many teachers, creating an effective online course site using general-purpose tools such as web page editors, discussion groups, mailing lists and commercial office software can be a very complex task. Becoming proficient in the use of these tools is beyond most teachers, who have limited time and resources. As a result, most online courses are very simple, consisting basically of static 'lecture notes' (text and graphics) and, less often, a generic 'threaded discussion area'. In addition, from year to year these web sites easily stagnate as the course. Improvements to the course are very often seen in terms of rewriting the content, or adding more media to the web site, such as audio and video.

Our attention is dedicated to the subject "Design of Internet applications" where students need to learn some theory and mainly to gain a lot of programming skills. However, since this field is changing very rapidly they also need to be prepared for the period after school and therefore they need to learn how to orient in a huge amount of information they can find, how to evaluate the importance, relevance and suitability for the task they have to solve.

Interactive tool for testing of script codes

In the training of server scripting languages the method of trial and error is the most effective. It is very important in order student could practically verify the program source code that he or she proposed. The code has to be both without syntax errors and it has to have the correct functionality, as well. Simply to say, the program has to accomplish the task it is supposed to do. The practical demonstration of problems enables to understand better the studied topic.

For this purpose we tried to prepare the web application that offers students the test environment for testing their codes prepared in Python server script language. We chose this language among others because it is used for design of web applications and it seems to be very appropriate for preparation of applications devoted to solution of scientific problems. It has quite good community support and the interested user can find several free libraries for solving mathematical tasks, drawing graphical dependencies, etc. Therefore Python language can also be a good choice in the case of building the applications for virtual and remote laboratory.

The advantage of the proposed testing environment consists also in the fact that in difference to for example PHP programming language, where does not exist a big number of free web hosting portals that support the Python language. If a student would like to try own Python code he or she usually has to install own local server together with the Python interpreter. The not enough skilled users can be discouraged by the complexity of this activity that also is time-consuming. One needs approximately 1 day of preparation (it includes looking for appropriate software combination, study of manuals, installation, customizing, etc.) to test the first code with 3-5 lines. The test environment enables to verify, modify and tune own script codes immediately without special preparation to this activity. It is sufficient only to be online on the Internet and to connect to the predefined server.

Added value of the tool

It is to mention that the created application can also be used for other purposes. In this period our faculty is involved to the solution of Leonardo da Vinci Transfer of Innovation project "Reviewing and Reviving Existing VET Curriculum". Its main aim is to ensure the quality of VET curriculum and services by reviewing and reviving existing VET curriculum on the basis of innovative education and technological methodology. Our institution is responsible for reviving the subject "Introduction to engineering mathematics". It is the supporting course of high school mathematics for the university study where student can repeat, refill and complete the knowledge, ability and skills from high school mathematics and to create presumptions for the successful university study. Thanks to various libraries for scientific and mathematical computations that were developed for Python, the introduced application can be used for the project purposes, too.

TEACHING OF CREATING SCIENTIFIC PRESENTATIONS IN HIGHER EDUCATION

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When I see a presentation as a designer I ask a few questions:

- What kinds of tools were used for developing it?
- What kinds of tools can be used for demonstrating it?
- Why were the design mistakes that alter the meaning or diminish the effect of the presentation committed by the author?

As an instructor who teaches Colour Theory and Typography, my question is how should Presentation Design may be taught more effectively during undergraduate studies and on the job?

The scientific presentation

First of all, the presentation is an illustration of a lecture. It completes the lecture, enriches it with visual elements, and emphasizes major thoughts. It makes the structure of the lecture easy understandable, it helps making notes and recall the content later.

Creating a presentation needs expertise. You should know the principles of visual communication, elementary rules of typography, and you should also be aware of expressive power and meanings of the colours. You should be able to use the tools for creating presentations and you should know how your work can be displayed. Badly created presentation due to incomplete knowledge of these areas may be traversed not only about its aesthetic flaw, but it makes comprehension difficult instead of making it easier.

The perfect solution would be to leave making presentations for a professional, and the lecturer should only display it.

But it does not ever work. Therefore we should teach lecturers, would-be lecturers and teachers how to make presentations properly.

Teaching to create scientific presentations in higher education

Suitable infrastructure is inevitable for teaching presentation design. Nowadays they are created almost exclusively by computers. There are many programs available on computers. The most familiar of them is Microsoft PowerPoint, but there are some similar software products as well (for example Impress in the Open Office). What is more presentations can be made online, too (docs.google.com). Another exciting possibility is to use professional graphic software developed for designers. The disadvantage of them is that they are too expensive to be widely used. The popular misbelief regarding these programs is that they are difficult to handle, but it is not true. They are understandable and built according to ergonomics.

Every task is easier with the help of graphic softwares. (Good examples are Illustrator, Indesign and Flash from Adobe). You can also employ the rules of typography and visual communication much easier. The PowerPoint which is generally used much more difficult to customise because it has too many automated functions that are difficult to shut down. The docs.google.com has limited functionalities and it is inaccurate.

It is difficult to develop an effective teaching strategy. The solution is, perhaps, to point out good practice and design failures that may encourage students to strive for simplicity and avoid empty visual effects. We should also emphasize the study of visual communication and typography. The most important rule of typography is the legibility – in terms of visual appeal and comprehension as well.

HEADHUNTING IN SLOVAK HIGH SCHOOLS

Vladimír Janiš, Matej Bel University, Slovak Republic

In Slovakia there is a long tradition of close cooperation among Universities and high schools. One of the forms of this cooperation were so called correspondence seminars. In these seminars the students used to send their solutions (by ordinary mail) to previously announced problems to particular university departments. After political changes in previous decades the tradition of these seminars was unfortunately interrupted.

Since 2006 Matej Bel University in Banská Bystrica organises online correspondence seminars for high schools students in Mathematics, Physics, Chemistry and Informatics. The details of these seminars are described in a poster by Jana Bukovinová (see the EDEN Valencia poster session) and the seminars themselves can be reached at http://lms.umb.sk, however, only in Slovak language so far. Although the basic idea comes from the traditional seminars, its online form opens new possibilities for sides, the university and the students.

The main difference is the interactivity. Contrary to classical form, where usually no adjustments were possible after sending the solution, in our case the students can discuss with university staff members on the problems. The discussions are available to all seminar participants, to guarantee equal chances. Moreover, the LMS system we use enables us to include either links or our own materials connected to the topics of the seminars.

Members of our target group are all the students from the first to the last year of high schools, there are no categories with respect to the participants' age. Therefore we try to present problems which require the ability of logical considerations and are in some way attractive rather than difficult problems demanding a lot of formal knowledge. It is not easy to find such problems, especially in the fields of physics and chemistry, on the other hand there is a plenty of suitable problems in mathematics and informatics. Moreover, from obvious reasons we have to avoid laboratory experiments. Identifying problems for the correspondence seminars is usually a task for students of teacher training programs at our university.

As a consequence of the continuous information stream attacking us from all possible sources it is not easy to find suitable participants for this type of seminars. What definitely does not work, is bulk mailing of information brochures to high schools, be it in classical or electronic form. As a rule their message results unnoticed among quantity of other leaflets. It seems that one of the methods that works is a personal communication; usually we prepare a popularisation lecture for a high school, which is connected with the information on correspondence seminars. Sometimes also a demonstration how to create the account and use the LMS system is useful.

On average not more than 5% of the addressed students continue to participate actively in the correspondence seminars. However, these are usually the best students, in many cases not yet decided for their future studies and hence this activity can play a significant role in deepening their interest in natural sciences. The interest is approximately equally distributed among mathematics, physics and chemistry, surprisingly low interest is in informatics. This contradicts the widely believed fact that the computer science is very popular among the youth. Or, perhaps it supports the statement that it is a manipulation with the computer, which is popular, but not a deeper theoretical background of informatics.

After four series of the seminars (lasting for 2 months each and consisting of 3 problems in each subject) we organise a summer school for the best participants. The summer school lasts for 3-5 days and consists of both leisure and professional parts. The "scientific" program for summer schools is prepared very carefully, usually the best available experts are invited to deliver a lecture on some attractive topic of their research.

Our experience from previous years shows that about 70% of the online correspondence seminars participants decide for the university studies in natural sciences. Although the absolute numbers of them are not high, in this case it is important that our correspondence seminars inspire the most gifted students in their choice of university studies.

INNOVATIVE DISTANCE LEARNING SERVICES FOR EUROPEAN SMES: THE IN.TRA.NET IDEA

Chiara Sancin, Dida Network, Valentina Castello, Dida Network and University of L'Aquila, Maria Riccio, University of Sannio, Francesco Zoino, Italy, Jan Saliga, University of Kosice, Slovakia

The IN.TRA.NET project, funded in 2008 by Lifelong Learning Programme – Leonardo da Vinci – "Innovation Transfer Network", with the participation of Institutions and Universities from three different European Countries (Italy, Spain, Slovakia), aims to design and develop an innovative environment for Vocational Training on instrumentation and electrical and electronic equipment of last generation. These devices are managed and controlled remotely via Internet through the system IN.TRA.NET that employs a distributed architecture (see Figure).
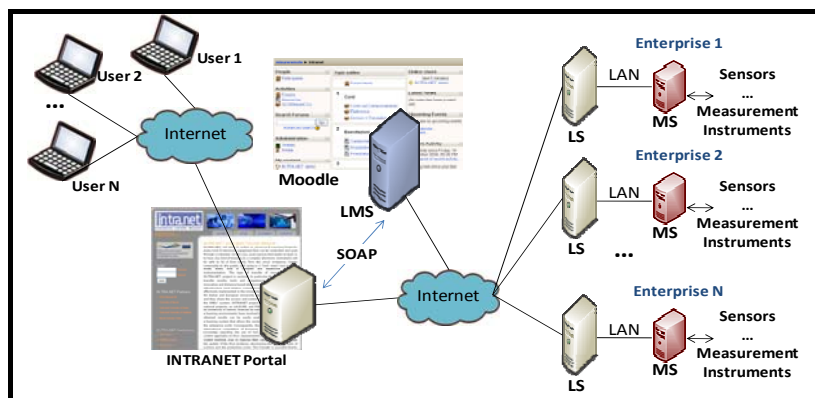
The environment uses a Learning Management System (*LMS; Moodle)* that integrates specific applications based on Web Services technology enabling remote control of real devices placed inside the laboratories of companies. In addition to remotely update activity to enhance the skills of engineers, SMEs can use the system to enhance their competitiveness by allowing potential clients to remotely access the devices.

A detailed user needs analysis was aimed to identify the specific needs of SME workers and technicians concerning continuous updating activities for the acquisition of new and more skills in managing complex and last generations instrumentations. The analysis was specifically finalized to the definition of which type of apparatus each SME was more interesting to make it manageable in the IN.TRA.NET environment, which type of specific activity had to be realized and finally what type of specific theoretical contents had to be considered for the development of the learning units.

The system is based on a web portal which interfaces with the LMS, in order to access contents and experiments to be provided to the users. The web portal allows making the system transparent to the user, so they have the support of the functionalities provided by the LMS, but without using it directly. The LMS is then connected to all the laboratories inside the university or in the company sites, where the experiments, instrumentations and industrial processes are located. The LMS is executed on a central server; the Laboratory Server (LS) is used to interface each experiment with the rest of the distributed architecture. There is an LS for each enterprise involved in the project; the Measurement Server (MS) is the server located in the enterprise that enables the interaction with one or more instruments or sensors depending on the specific experiment. A MS is physically connected to a set of different electronic measurement instruments or sensors by means of specific interfaces.

Starting from the user needs analysis and the direct involvement of four companies in the testing phase, it was decided to carry out specific functionalities i) to provide distance learning about the electronic equipment use, ii) to enable remote control of devices intended to control quality of the production process, iii) to allow the remote monitoring of the electronic devices performances, iv) to allow the remote demo of equipment to market.

For more information about the project: www.intranetlab.eu.

VIRTUAL ENVIRONMENTS FOR COMPETENCES DEVELOPMENT – VITA PROJECT

Valentina Castello, University of L'Aquila, Dida Network Srl, Chiara Sancin, Dida Network Srl,
Giovanni Sorrentino, Italy

VITA – Virtual Learning for the management of successful SMEs, approved by the European Commission (Lifelong Learning Programme – Leonardo da Vinci) in October 2008 and launched at the beginning of 2009 – presents an innovative approach to learn and practice entrepreneurship and business management competence.

Vita project is based on the results of different projects, concerning web 2.0 based and virtualization strategies, the EU recommendations, policy for SMEs and experiences already promoted in member states (such as the use of "mini-companies"), e-learning curricula for SMEs and virtual training experiences to develop a learning strategy specially designed for the needs of SMEs' managers.

Objectives

Main project is to transfer best practices and methodological framework on virtual worlds' use for promoting managerial competences' development (as related to the specific Lisbon 2010' goal on successful SMEs for the dynamic growth of economy).

VITA aims to increase the capability of SMEs to adapt to European competitive scenarios, resorting to a specific training module, and increase adults employability, mobility and multicultural awareness, by:

- Defining the European entrepreneur profile in terms SME's management competences on the basis of needs analyses in collaboration with employees;

- Defining courses, pedagogical approaches and evaluation tools addressing identified needs, upon the results of different projects, adapted to the characteristics of a virtual learning campus;

- Conceiving a 3D virtual learning environment where learners will participate in collaborative learning experience, located in Second Life platform and will have the opportunity to test their competences in safe context of application by generating and managing a virtual SME;

- Program's alignment of eLearners in the basis of EQF and ECVT systems and other national qualification systems.

Virtual Campus and Virtual Training

Vita Campus consists in two Sims (lands) in Second Life: UTAD and VITA PROJECT. Students of the University of Trás-os-Montes e Alto Douro (UTAD), coordinated by Professor Dr. Leonel Morgado have built the Campus. Regarding the Methodology *we* have accomplished curricula content for the following contents: Communication skills; Negotiation and decision making; Ability to control and manage costs; Ability to discover new opportunities; Build and lead teams; Project management ability; Ability to create and provide strategic/operational plans; Time management for own work and team and Basics skills for sales planning.

Our target group is represented by a multicultural classroom of around 20 adults with the following requirements:

- Ability to communicate and work in English;

- ICT manipulation proficiency;

- Entrepreneurship motivation (being a SME's manger or willing to become).

There are suggested the following learning tools: Brainstorm wall; Role playing scenarios; Zebra presenter; Business plan simulator; WordGrid and some others.

For more information about the project: http://vita.bitmedia.cc/.

USE OF INTERNET BY PREGNANT WOMEN IN GREECE – PRELIMINARY RESULTS FROM A QUESTIONNAIRE SURVEY

Evridiki Kalatheri, Papageorghiou General Hospital, Panagiotis Antoniou, Democritus University of Thrace, Themistoklis Mikos, Filippos Tzevelekis, Vasilieios Tzevelekis, Basil Tarlatzis, Aristotle University of Thessaloniki, Greece

Objective

The aim of the study was to identify the extent of the use of Internet for pregnancy related purposes by pregnant women living in Greece.

Design and setting

This was a prospective, questionnaire survey, to obtain information from pregnant woman who visited the outpatient antenatal clinic of the 1st Department of Obstetrics & Gynaecology, Aristotle University of Thessaloniki, Greece, from December 2009 to January 2010.

Participants

There were 202 pregnant women who participated in the study, with a mean of age 32.38 years and mean of gestational age 21.6 weeks.

Findings

There were 135 pregnant women (135/202, 66.83%) who had access to the Internet. The frequency of the use of Internet was in a daily basis for 20.96% (39/186), more than 2-3 times per week for 12.36% (23/186), less than 1-2 times per week for 30.10% (56/186), whereas 38.70% (72/186) never used the Internet. In the question of the reliability of the health information from the Internet, 47 women considered that this was high (23.26%), 70 women average (34.65%), 6 women low (2.97%), whereas 79 women did not answer this question at all (39.10%). Younger pregnant women appear to have statistically significantly increased Internet availability compared to older women ($p<0.001$). Primipara and pregnant women of higher education have also increased Internet availability ($p<0.01$), they use the Internet more frequently ($p<0.01$), and they consider the pregnancy related information via Internet reliable ($p<0.01$). Finally, Greek women have higher Internet availability compared to non Greek pregnant women ($p<0.001$), and they consider the sources from the Internet reliable ($p<0.001$).

Conclusion

The pregnant women who participated in our study use the Internet to obtain pregnancy related information in 66.8%.The most sought after topics are breastfeeding, pregnancy timeline, neonata issues, and delivery. Younger Greek women of higher education use the Internet mostly, and they consider Internet derived pregnancy related information more reliable.

A TECHNOLOGICAL CHALLENGE TOWARDS E-INCLUSION AND ACCESSIBILITY

Maria Riccio, University of Sannio, Valentina Castello, Dida Network and University of L'Aquila,
Chiara Sancin, Dida Network, Italy

eFESTO background and rationale

The technology is considered a very important resource for educating and integrating citizens with deafness disability in modern working and professional society. In literature it was highlighted that citizens with deafness disability can get very advantages by using technologies both in educational and professionals' fields. In recent years, in particular, it has been highlighted the important role of the Internet, as an instrument to create educational path that can be personalized and can go over the space-time constraints and to emphasize to role of the communication as central in the learning process. The online training can be considered "deaffriendly" because it allows each deaf learner to follow a learning path that is based on his/her modality and time, allows chare information and allows to facilitate the discussion. During the design phase of the learning path for a deaf student it is not possible to consider and identify only one user category. Deaf learners are characterized in fact by a lot of different variables that derives both from their sensorial deficit but also from the relational and psychological sphere.
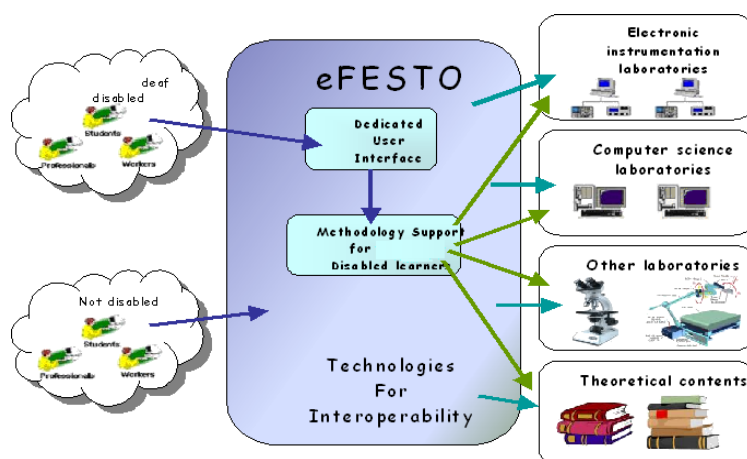
eFESTO goals

The eFESTO project is the merging and vaporization of results, tools, competencies and evidences of two projects: PSELDA and LADIRE, both are an Italian national experimental project created by the University of Sannio in 2003 – and funded by the Ministry of Education. The first had the specific mission of supporting and enhancing the university education of deaf students through the use of specific pedagogic models and methods tailored to the users' needs. The second is a national measurement laboratory that operatively provides to the students of electric and electronic measurement courses the access to real remote measurement laboratories and that delivers them different didactic activities related to measurement experiments to manage remote real instrumentations to learning to use them. The eFESTO consortium is composed by Techin (Poland), University of Sannio (Italy), Dida Network s.r.l (Italy), Time-Foundation (Bulgaria), Istituto Canossiano Scuola Audiofonetica (Italy), Polish Association of the Deaf (Poland), Corvinno Technology Transfer Center Nonprofit (Hungary), Hungarian Deaf Sport Association (Hungary).

Taking into account these considerations eFESTO project, found by Lifelong Learning Programme – Leonardo da Vinci – Transfer of Innovation, aims to realize an innovative learning environment for deaf learners for acquiring more skills about managing and using of electrical and electronic apparatus in different application fields, such as in biomedical, telecommunication, industry and sustainable environment. This aspect will give to disabled learners the possibility to acquire new competencies and so to have different chances to be employed in the modern e-society. The system will also deliver specific courses of English language for deaf learners.

For more information about the project, please visit the project website: www.efestoproject.eu.

DEVELOPING A VIRTUAL CAMPUS FOR INTERNATIONAL SOCIAL WORK

Anne Karin Larsen, Bergen University College, Norway, Eduardo Marques, Miguel Torga University College, Portugal, Andres A. Astray, Complutense University, Spain, Grete Oline Hole, Bergen University College, Norway

The EACEA funded project Social Work – Virtual Campus (SW-VirCamp) started in 2008 with 12 partners from 9 countries. The aim is to establish a Virtual Campus for Social Work in Europe including an international specialisation with e-learning courses, study abroad programmes including practical placement and theoretical courses and Bachelor theses written in English with a comparative perspective on international social work. A quality guide will be developed to assure high quality.

Development of a Virtual Campus for Social Work in Europe is an innovative project that aims to integrate the Bologna process and to inspire Higher Educational Institutions to increase English skills among students and teachers and to offer possibilities for both *internationalisation from home* and student and teacher exchanges. The curriculum plans are developed in cooperation among the partners, and the teaching is done by a multinational teacher team. The portfolio of e-learning courses include earlier developed courses by the international consortium *the Virtual Classroom for Social Work in Europe* (VIRCLASS) plus a new e-learning course in Community Work from an International Perspective (15 ECTS credits), a SW-VirCamp outcome.

The e-learning courses are based on a socio-cultural learning perspective and intend to develop a '*community of learning*' among students from different parts of Europe. The study of social work in their own country and participation in the international courses give students an opportunity to look at commonalities and differences and compare their knowledge and practice to that of students in other countries. By participating in theme discussions, chats, and by co-writing they are sharing documents and knowledge. The courses intend to stimulate creativity in problem-solving processes and competences needed in the daily work of a social worker. Through interaction between students from different countries working with the same assignments in a transparent classroom, we hope to stimulate new methods of problem-solving strategies in social work.

As e-learning courses become more common, it is important to know more about what facilitates deep-learning in computer-supported settings. A blended course in '*E-pedagogy for teachers in Higher Education'* was therefore developed to recruit and increase teacher competences. The course material is presented in a Virtual Book (Larsen and Hole, 2009) under a Creative Commons license.

The Curriculum plan for the Community Work module is competence-based and the challenge in an e-learning course is to include a possibility for practice experience which can help students in their learning process. A Community Case has been developed and the daily life in the Green Park Community is presented through a community blog where people who live around the park present their thoughts, interests, troubles, etc. Students are mapping the Community and develop project plans together with people living around the park. The learning experience derived from this work will be followed by a research programme in spring 2010.

Web addresses:

- http://vircamp.net
- http://virclass.net
- http://virclass.net/eped

ON-LINE CORRESPONDENCE SEMINARS OF NATURAL SCIENCE

Jana Bukovinová, Matej Bel University, Slovak Republic

On-line correspondence seminars of Natural Science – the Slovak national on-line competition – are designed for students of secondary schools. They solve interesting and practical tasks from the scientific subjects – Mathematics, Physics, Chemistry and Informatics.

Students, who want to participate, create an account in the system MOODLE, which can be found at the address: http://lms.umb.sk, and they enrol for some of the following courses: Mathematics, Physics, Chemistry and Informatics.

Seminars consist of four series of tasks from the above mentioned fields, which are gradually publicized during the school year through the software of MOODLE. The first two series are accessible in the first term (October-December), the last two series in the second term (February-April). Each series consists of 3 tasks from each subject. The tasks are made up and evaluated by a group of scientific-pedagogical employees working at Matej Bel University in Banská Bystrica.

The way of communication with the participants is electronic. Students, engaged in the competition, solve the tasks from the subjects which they choose and after the resolution of the problem which the task possesses, they put the file containing the solution into the program LMS MOODLE.

They can get from 0 to 5 points per each task. The maximum number of points is given to solution which covers not only the correct result but also the proceeding and is submitted until the pre-appointed deadline. Solutions which are submitted after the deadline can be valuated by maximum 3 points. Participants can get maximum 15 points (3x5) per one subject. During the school year, it means after 4 series of tasks, they can get maximum 60 points per one subject. Tasks from each subject represent an autonomous category that is evaluated independently.

In the end of the school year, not only the winners from all subjects are announced but also a winner who took part in all categories.

The most successful students are rewarded by books according to their own choice and they can take part in summer seminar-meeting. Seminar-meetings take place in pleasant places, in the country, where an interesting program is prepared for students. They can attend lectures with attractive topics, which are prepared by pedagogues from Matej Bel University. Moreover, they can meet other students from different part of Slovakia; they can compete or can go for a trip in the nature. During the meeting, they can be enriched by precious advice about the possibilities of study at universities.

On-line correspondence seminars of Natural Science enable students:

- to find out their possibilities and compare their skills with other students from Slovakia,
- to use the opportunity of preparing for their entrance interview to university,
- to learn something new,
- to acquaint with e-learning,
- to take part in summer-meeting designed for the best participants,
- to acquire prices.

WHEN CHILDREN USE COMPUTERS AND THE INTERNET, ARE THEY LOST FOR SPORTS?

Nikolas Apostolakis, Panagiotis Antoniou, Democritus University of Thrace, Greece

Introduction

When children use computers instead of participating in sports and community activities, this raises concerns about the likely impact it may have on their physical and psychological development. Studies have shown that when children play games on their computer are being exposed to various risks such as hand injury, epileptic seizures, etc. Access to computer increases the total time children spend sitting in front of a (TV or PC) monitor and so children are exposed to the risk of obesity. Cognitive research findings, however, suggest that children should be allowed to play computer games.It has been also suggested that moderate use of computer games has an adverse effect on children's interaction and on family ties. In Greece, students have limited spare time since the schedule of classes, as the main factor beyond others, takes up most of the day, compressing thus spare time available to students. Use of spare time in after school activities contributes to the psychological and the social development of children. It has been observed that internet access and PC ownership contribute in the short-term to reduced teen participation in physical activities.

The objective of this study was to inquire into whether computer use by 1st year junior high school students affects their involvement in sports. In particular, the aim was to investigate whether students who are PC and Internet users are involved in sports through a sports club.

Methodology

A sample of 217, 1st year junior high school students took place and for the participation of the subjects required parental consent. A demographic data form and a computer use questionnaire were used for the data collection. Descriptive statistics methods and t test analysis for independent-samples were conducted, in order to evaluate the data.

Results – Discussion – Conclusions

128 boys and 89 girls participated in the study (mean age = 12.04, sd = 0.30). Of the sample, 89.9% were Greeks and 10.1% were third country nationals. Of the sampled population, 84.5% is using computers. 91.3% of the students making use of computers, own a computer at home for more than two years (50.6%), which seems to be the same with the period since their first contact with computers (54.3%). When using a computer, 29.9% of users do so for a period of 30 minutes – 1 hour, 38% of users for a period ranging from 1 hour to 2 hours, while 13% of users use the computer for more than two hours. 28.8% of users use a computer on a daily basis, 31% uses a computer for some days of the week, while 25% of users uses a computer on weekends. 89.9% of the sampled population is involved in after school activities: Sports (through a sports club) (54.4%), Dancing (dance school) (15.9%), Music (school) (15,4%), Foreign language (tutoring) (76.4%), Painting (organised sessions) (5.6%), other (21%). Statistically significant differences were noted between users and non-users of computers concerning their involvement in sports through sports clubs $t_{(215)}$ =-2.33, $p<0.05$), and foreign language learning $t_{(215)}$ =-2.74, $p<0.05$), with non-users outmatching users.

The findings suggest that personal computer use is widespread in the homes of our sampled student population. Greek parents and parents from other countries view computers as a useful tool in the education of their children. Computer use is affecting almost every after school activity students are involved in, especially those activities that require consistency such as involvement in sports through sports clubs. This last finding comes to confirm the findings of previous studies. It is supported that computers have gained a prominent place in children's interests and parents are recognising computers as a necessary learning tool contributing to the acquisition of the appropriate skills that are required in an information and knowledge society. However, children's use of computers is a time-consuming activity and as such it deprives children the chance to get involved in after school activities, such as sports, which demand discipline and consistency.

OFFICE INTERACTORS – NEWS FOR NEW LEARNING

Lucia Petrescu, EuroEd Foundation, Iasi Anca Colibaba, "Gr.T.Popa University" Iasi, Romania

Updating the teaching/learning process is probably one of the most important means of motivating learners, especially adult learners. The Office InterActors project transfers the experience and the products of a previous project, InterAct, with the purpose of offering beneficiaries a motivating learning experience. The methodology developed focuses on valorising participants' personal experience to support the learning process. The use of ICT elements provides a wide variety of activities. The blended approach implemented by the project involves both face to face meetings and other diverse types of online communication with the international partners thus taking into consideration the learning needs and affordances of all the groups activating within this programme.

General information

Today's society has clearly modified its requests towards practitioners, irrespective of their field of activity. There is the need of identifying an opportunity to mould professional affordances so as to update them to the market request. These kinds of experiences have to address a much wider range than that of professional skills and abilities. Success in all professional fields includes research and work within a complex frame that offers individuals the chance of having a holistic view on the entire activity field, including more than the strictly professional aspects.

The present project reaches in-service courses using a methodology previously developed within the InterAct project (the result of a Leonardo da Vinci project awarded the European Label in 2007), proven successful and adaptable to learning at the workplace. The principle at the basis of this method considers the fact that the beneficiaries of these courses need to be integrated or reintegrated in the present society making relevant links to their professional domains. This includes activities meant to widen the multicultural and multilingual horizon within which the target groups are either active or with which they are about to interact.

This course is structured in two stages each of them including courses which address both the tutors and the end beneficiaries. Participants from Spain, France, Lithuania, Bulgaria and Romania are organized in national groups which communicate online by the help of a Moodle platform to accomplish collaborative tasks developed on the idea of problem solving. The scenarios created offer an authentic and relevant support for the acquisition of all aspects that have to do with participants' professional domain. Tutors are encouraged to adapt the original work model to the target groups they are to work with. The first tutors training was delivered in Iasi and the second will take place within the international conference and will be followed by the second course for the end beneficiaries. This creates the possibility of dissemination towards other parties interested in the specific methodology and structure of this type of courses. The site of the project will be used to support this approach as it offers a resource data base for the delivery of the courses (http://www.officeinteractors.eu).

BABEL WEB ANTHOLOGY A SPECIAL OFFER TO EUROPEAN DISTANCE AND E-LEARNING NETWORK

Zsuzsa Votisky, Typotex Ltd. Electronic Publishing House, Hungary

What is BWA?

The Babel Web Anthology (BWA) – www.babelmatrix.org – builds upon the Babelmatrix idea that changes the traditional bilingual relationships between original literary works and their translations into a special, multilingual form.

Thanks to the innovative structure of Babelmatrix, it is possible to handle original literary works and their translations multi-dimensionally, that is, in multiple languages in the same time.

BWA is edited with great care and continuously updated with contextual information that can provide the user with adequate insight into the cultures and literatures of other European countries. What we offer?

- Set up new subanthologies as international project like Visegradliterature Net (www.visegradliterature.net). A fulfilled part of Babelmatrix where Visegrad countries Czech, Hungarian, Polish, Slovak literature pearls are available in each other language and also in English and German translation.
- Set up national opened pool for volunteer editors and translators like Hungarians in Babel (www.magyarulbabelben.net). The basic literary pool is from classical, modern and contemporary Hungarian literature translated into several languages, and the pearls of the European literatures translated into Hungarian. It has just become available for the average user/amateur translators in web2 style. After moderating the new elements became part of the main database. Opened 2010 March.

BWA in figures: Number of original works: ~1 800, Number of translations: ~3 500, Page Rank: 6, Average number of unique visitors/months: 20 000.

Why are we offering BWA to the participants of this conference?

Because these words are common with our approach:

> *"Changing learning styles and identities during lifelong and life wide learning."*

> *"Distance and e-learning in non-formal and informal learning situations."*

How do we want to improve the project, especially by this presentation?

- find personal contributors as teachers
- find professional partners to fill the database
- find projects that invite us as a partner

How can we imagine our contribution in e-learning / where is the place of BWA in the circle of knowledge building and sharing?

BWA is an e-learning tool that can be used by teachers and students in the field of linguistics and of course by learners of foreign languages.

WORKING WITH CHANGE TO ENHANCE THE POTENTIALS OF DIGITAL LEARNING

Judit Vidékiné Reményi, Budapest University of Technology and Economics, Hungary

Digital learning has gained much popularity lately both among educationalists and learners. Educationalists are increasingly integrating phases of digital learning into mainstream education;, learners are replacing both content- and environment-wise inflexible traditional learning environments with the digital one as they have had enough of time-wasting, demotivating institutionalized solutions. The input carefully selected and provided by educationalists so far is selected and provided by the learners themselves. The change of the learning environment long provided by educational institutions and taken for granted is formed by the fast developing tools of technology. As the locus of learning has been shifted outside schools, and the learning environment has drastically been changed, the learning process can hardly be controlled any more by educationalists. If we do not recapture control over the learning process, educational goals cannot be met. In the lack of control, it is impossible to design the learning process and attain both the short-term and the long-term output goals of education. Consequently, it is essential that we have relevant knowledge on both the input and the process, it is vital to have insight into the process of content and tool selection, the procedure of information acquisition, storage, abstracting and relating to the existing information structure, and to provide pedagogical help with making information into knowledge, organizing the knowledge patchworks into a meaningful entity.

We need to acquire a full understanding of the key characteristics of digital learning. More information is needed on how learners design and develop their own courses using the great abundance of content materials and tools, how they select from the non-instructional and instructional learning materials, what descriptors they prefer when choosing the reusable learning objects. In the lack of more insights into the learning process it is not fully understood how they navigate and select from microcontent elements. It is much more understood that digital learning is rich in community aspects and social communication has huge potentials but less is known about how it can be successfully integrated into the learning process to utilize the collaborative learning potentials.

Educationalists need to face the challenge to prepare present and future 'consumers' of digital learning to become successful self-directed digital learners and what tools can be used to improve self-knowledge and conscious selection. It is also still to be solved how learning objects need to be structured and developed to be suitable for covering the complete learning process, as otherwise learning will not occur. The process of selection should be modelled to make content input more predictable, to use better 'descriptors'. We need to design a wide spectrum of performance measurement and evaluation tools allowing for more individualized ways of evaluation, as their integration into mainstream courses can only provide more insight into the digital learning phases and the expectable outcomes. Value-adding F2F teaching should replace frontal lecturing to 'map' the white spaces in the students' knowledge structures and to relate pieces of information to form an entity of knowledge. Aspects of collaborative learning such as moderation, integration into digital learning should be more understood and relied on to ensure that digital learning is not 'make or break'.

QUALITY CONTROL IN THE VOCATIONAL ONLINE EDUCATION

Olga Grishina, Elena Sidorova, Russian Plekhanov Academy of Economics, Russia

Introduction

The new economic environment in Russia caused by the world financial crisis, high competition on the labour market have brought about the necessity to elaborate new educational programmes aimed at updating professional skills and knowledge of citizens. In the framework of its programmes for lifelong education the Faculty of Distance Learning (FDL) of Russian Plekhanov Academy of Economics is undertaking the effort of creating such short-term courses allowing employees to combine them with their full time employment. But time limit and focusing on practical skills contribute to the ever-existing challenge of successful content delivery through distance education. It is important that students who complete an online programme get the same education as those who receive it through traditional class-room based instruction. The control of quality is necessary in order to guarantee that the learning process meets basic standards and objectives of the concrete programme and leads to students' satisfaction. That is why the FDL is concentrating on the creation and further implementation of its own quality strategy.

What has been done

As a first step a survey based on online questionnaires for two target groups – students and teachers – was conducted. The main purpose of these questionnaires was to find out the level of satisfaction of both groups with quality in provided online education, but other questions (e.g. concerning students' background) were included.

The second step was devoted to the analysis of content of provided programmes and their compliance with the corresponding traditional face-to-face programmes.

Now all the received data are being processed in order to get information on the following parameters:

- The basic characteristics of the learning process;
- Intellectual level, motives, and basic psychological features of students;
- Background, knowledge and technical skills of students.

Basic concepts

To define the basic characteristics of the learning process the following factors can be used:

- Students' participation and learning process effectiveness are measured with time charts and questionnaires;
- Students motives are analysed with questionnaires;
- Compatibility of different methods, with time charts.

The process of investigation has shown that calculating a quantitative indicator of quality meets most of the requirements of quality control. Collecting information through questionnaires proves to be the best way of maintaining educational efficiency. Educational coefficient fluctuations in the process of learning of one group, or among different groups help to elaborate "managing impact" on the methods and content of teaching in order to improve them constantly.

Conclusion

Improving quality has always been a priority task for all educational institutions but quality control in online education is of crucial importance. And though certain standards for teaching methods and programmes content have always been in the focus, students' opinion and background were sometimes unreasonably neglected. But it is apparent that students' satisfaction is the key factor in defining quality, the situation where quality is worked out in collaboration between students and teachers is the pattern one should aspire to.

USER GENERATED CONTENT IN HIGHER EDUCATION: APPROACHES TO QUALITY ASSURANCE

Thomas Kretschmer, Friedrich-Alexander-University of Erlangen-Nuremberg – ILI/FIM, Germany
Claudio Delrio, University of Emilia Romagna, Italy

In today's society individuals and organisations are confronted with an ever growing load, diversity and permanence of constantly changing information and content. Content can be considered the crude oil of our economy and content creative destruction, aggregation, selection and diffusion are key issues in the Knowledge Society. The "explosion" of user generated content (UGC) takes place at such a magnitude and extent which go beyond conceptual boundaries. However, some common traits can be identified:

- Publication and sharing: focus on the work that is published in the context of a publicly accessible website, a collaborative project work or a page on a social networking site accessible to a select group of people;

- Creative effort: a certain amount of creative effort was put into creating the work or in adapting existing works to construct a new one; i.e. users must add their own value to the work;

- Creation outside professional contexts: User generated content is generally created outside of professional routines and practices, but may be fed back into organisational settings.

In a scenario of global competition among higher education providers, enhancing quality of user generated content and ultimately fostering its acceptance and diffusion into teaching and learning practice is fundamental for universities in their modernisation agenda. And yet there are several inhibiting factors both to the introduction of UGC into higher education (and the related development of quality frameworks), like lack of time, skills and reward system for teachers and still a significant share of learners; Reluctance of many teachers to use or create UGC, since they challenge the concept of "authority"; etc.

Against this background, the overall aim of the CONCEDE (CONtent Creation Excellence through Dialogue in Education) project is to improve the effectiveness of teaching and learning by enhancing the quantity and quality of user generated content that can be incorporated into higher education learning provision. To achieve this aim, a three-layered quality framework will be developed and applied, with the following layers:

- A first level of quality assurance is based on users' comments, reviews and ratings in relation to a learning experience taking place within one HE institution;

- A second layer of quality assurance is based on institutional quality procedures undertaken by universities;

- The third layer is dialogue and negotiations among the representatives of these two levels of quality assurance (i.e. teachers and learners) in order to reach a consensus which determine a synthesis of both layers described above.

QUANTITY OR QUALITY? – A DILEMMA OF DL

Éva Sándor-Kriszt, Anita Csesznák, Tamás Radványi, Budapest Business School, Hungary

We are often trapped in the quagmire of an absurd dilemma: should we try and go ahead and expand by trying to recruit an increasing number of students thereby overcoming the problems posed by the global financial crisis and the dwindling number of applicants or should we turn our attention to further improve the quality of the programs offered and thus luring more students to our DL programs? Should we invest more in advertising and promoting our programs or spend more money on the development of better learning materials? Should we finance an expensive but promising publicity campaign or should we rather use more resources to develop new learning facilities?

The obvious answer is that that is the wrong way to tackle the problem. You must discard the conjunction or and replace it by and. Quality or quantity is not an alternative solution to problems of strategic planning for DL programs: DL programs should always be designed bearing in mind the interest of the students, which means that we – tutors, curriculum designers, program developers – can only be successful if the student is successful. In other words maintaining and enhancing quality is the only way of attracting more students.

Of course, this is easier said than done. Very often you are faced with alternatives such as, for example, whether you should allocate the funds available for a newspaper advertisement or the development of your website. There isn't enough money for both. Your colleagues look at you. "What's the use of enhancing the website if we don't have students?" says one. "How can we recruit more students with the outdated website?" asks the other. A decision has to be taken.

And there are even more sensitive and delicate dilemmas. If you want your students to achieve better results, you may become too demanding and too many students may drop out. You must maintain a balance between high expectations and reality. Is there any one of us who has not experienced the pain of seeing an appallingly large number of unsatisfactory tests? Should you fail 90 per cent of your class or lower the passing score?

Unfortunately, there is no panacea for all these problems.

The paper only wants to give a short description of what problems the Budapest Business School has and how we try to grapple with similar problems in the context of DL programs provided our School. We try to analyze quality problems using also quantitative methods, look at how we seek to solve the problems, and what solutions we have already found.

We shall also give a short review of the School's quality management system and our institutional development plan.

MEDIA SUPPORTED LEARNING TO OVERCOME COMMUNICATION BARRIERS IN VOCATIONAL EDUCATION

Dorin Festeu, Buckinghamshire New University, United Kingdom, Per Thomsen, Greenland Business School, Denmark, Lasse Ziska, Oqaatsinik Pikkorissarfik-Sisimiut, Greenland, Denmark

The aim of this poster is to present within the framework of the European e-learning practice the results of an EU funded project in the area of media supported learning. COMBAR Project was financed by the Leonardo da Vinci Programme of the European Commission and was developed from 2006 to 2008.The general aim of the COMBAR project was to develop e-learning pedagogies and tools to assist learners who live in remote areas to overcome communication barriers. Project partners: Greenland Business School as Project leader (Nuuk, Greenland); Building School (Sisimiut, Greenland); Oqaatsinik Pikkorissarfik (Sisimiut, Greenland); Institut for Anvendt og Teoretisk Informatik (Denmark); Buckinghamshire New University (United Kingdom); Lahti University of Applied Sciences and Humanities (Finland).

Identified problem

Many European countries face the problem that recruiting into the VET system is unbalanced and not representative to the demographic and cultural composition of the Member States. The accessibility to VET for learners in remote or peripheral regions and from cultural and linguistic minorities is restrained by a number of communicative barriers. Communicative barriers can simply be geographical distance to learning opportunities, but also cultural barriers

Project objectives

The objectives of the COMBAR-project were to develop a modular training course using e-learning methodology and e-based pedagogical tools to overcome the communicative barriers faced by learners in the peripheral and remote regions. The methodology was developed in cooperation with experienced European VET institutions and e-learning specialists and was based on the adaptation and transfer of existing innovative solutions to the specific context and the specific challenges of the project. The development of the project had taken into account Conole's (2004) design rules.

Outcomes

The overall result of the COMBAR project was the implementation of the modular training course in e-learning methodology in the participating VET institutions.

Specific results included: The COMBAR Manual (Thomsen and Ziska, 2008).

- Mapping of practical and communicative barriers of learners in remote and peripheral regions.
- Mapping and developing support networks that are adapted to the practical and communicative barriers of the learner.
- Creation of pedagogical models for the development of work situated education and training by e-learning.
- Development of flexible teaching plans and curriculum for the COMBAR course.
- Development of training course for key instructors to deliver COMBAR course.
- Development of templates, toolbox and guidelines for future courses.

Main communicative barriers tackled: Geographical barriers; Cultural barriers; Language barriers; Cognitive barriers.

COMBAR Concept is accessible at www.combar.cursum.net and could offer inspiration to other VET organisations on how to: formulate learning objectives; develop procedures for the teachers to identify barriers; develop procedures for the counsellors to work with learners; develop procedures for the apprenticeship mentors; develop joint (theoretical and practical) assignments; develop collaboration procedures between learners, teachers, counsellors and mentors etc.

BLENDED LEARNING IN THE TRAINING OF SPORT PROFESSIONALS

Ágnes Kokovay, Semmelweis University Faculty of Physical Education and Sport Sciences, Hungary

Raising the Problem

The two-level programs (BSc, MSc/MA) that were introduced in higher education in Hungary after the System Change were not as successful as originally thought in the training of sport professionals. Among all the programs the training of coaches – that was integrated into the higher education system – was hit the hardest.

Laws regarding this new system strictly regulate that a minimum of 8 to 12 students have to be enrolled in each program at each institution. In case there are not enough applicants the program cannot be started. Because of this it can easily happen that in a certain sport there is no training for coaches for years as usually only two or three people are applying annually.

The Aim of Development

Our main goal was to work out a system that complies with the binding legislation but on the other hand secures the training of coaches according to the needs.

The Adaptation of Blended Learning

In order to realize our goals we introduced the so-called "network learning" where students can participate in a system that covers the whole country.

The essence of the system is that the theoretical curriculum is developed centrally in the form of e-learning. Its uniqueness lies in that every institution is able to attach their specific initiatives into the system. This way system ensures that every institution can preserve their unique image and appeal. The exercise part of the training is done on location at each institution while not excluding the idea – that if the need arises – this can also carry out centrally. If the latter is also worked out suitably that would mean that a complete system of blended learning is at hand which cover the whole of the country.

The Feasibility of the Project

The IT background

In Hungary higher education institutions are linked to one another by a system operated by the *National Information Infrastructure Development Institute,* so the technical conditions are given.

Choosing the Sports

At the moment the demands of the students are surveyed. As to which sports will be chosen it will be decided in the light of the results.

Personal Conditions

The sport experts of the participating institutions as well as professionals from each sport who will be called upon will take part in development of the curriculum. As they did not do this kind of job before at the moment the preparation of the teachers is under way.

Conclusion

Above is the presentation of the first steps of a work that is in progress for years and which will hopefully foster the training of future generations of coaches. With this we will be able to assist reaching new heights and further Hungarian sport triumphs that the public expects.

INNOVATIVE USE OF THE PEDAGOGICAL AGENTS WITHIN THE E-LEARNING PLATFORMS

Mikail Feituri, Paolo Degasperi, Susanna Correnti, Consorzio For.Com., Italy

Distance learning through information and communication technologies has consistently had a notable impact and influence on the academic and professional world. Traditional courses delivered in an e-learning modality can sometimes, however, result in being unexciting and leaving the student with the impression of being isolated during their learning process.

Pedagogical intelligent agents represents the answer to such issue due to their constant presence in the learner's training environment, interacting verbally and non verbally (gestures and expressions) with users, thus making e-learning much more interesting and fun. This ongoing interaction and support of the agent, therefore, notably helps reduce the possibility of users feeling excluded during their e-learning course, thus better enhancing their overall learning experience and reinforcing their motivation.

Two examples of the use of pedagogical intelligent agents will be described that clearly demonstrate and represent an effective approach for e-learning.

The first case is represented by the COACH BOT Project. The COACH BOT project aims at developing an e-learning methodology that combines the Conversational Agent Technology with a modular e-learning path addressed to healthcare professionals. The e-learning environment includes a "Virtual Assistant", called Clara, who interacts with learners through a human-like interface, supporting them "individually".

With the Guidance Interview Clara defines a professional profile of each student. Afterward, student is allowed to access the platform's exercise area. The Start up Quizzes aims to test the students' initial knowledge. The student can find the course modules list in the LMS: his/her own Personalised Training Path. With the Help Desk area Clara provides the user explanations of the LMS functionalities. Clara also helps the user regarding topics featured in the course through the functionality "Suggestions". In order to keep learners motivated, Clara provides ongoing verbal feedback concerning their progress (Ongoing Presence). The Final Assessment aims to check the student's learning progress.

The second case is represented by the T2 Project: "Teaching Tutoring – Intelligent Agents to customize lifelong learning pathways in the microfinance sector". The project addresses the needs of European Microfinance Institutions which provide micro-credit to non-bankable micro-enterprises and low-income and marginalized people as a strategic sector in Europe promoting growth, jobs social inclusion and flexicurity.

The T2 e-platform encompasses an e-course and Virtual Tutor Environment featuring a chat-bot or "Virtual Tutor", an intelligent tutoring system able to generate individual assessment pathways for learners.

The Virtual Tutor's human-like behaviour is simulated through the application of an adopted Fuzzy Logic, translating natural language syntax into an artificial language for computers.

The Virtual Tutor's assessment is stored in a database and distributed to teachers through web-interface and synthetic indicators, which can be used to better customize and develop the T2 face-to-face training sessions according to MIF professionals' needs.

MERGING ONLINE AND "TRADITIONAL" COURSES AND STUDENT GROUPS: A "NATURAL" TREND OR A TEMPORARY TACTIC – WHY AND HOW?

Sólveig Jakobsdóttir, Thurídur Jóhannsdóttir, University of Iceland – School of Education, Iceland

Introduction

The concept hybrid or blended learning has been used to refer to a mix of online and f2f learning. Many universities and other educational institutions offer both online courses for distance learners as well as "traditional" f2f courses for students studying on campus. The question arises whether courses previously run separately for different student groups (distance or on-campus) should be combined to cut costs and/or for other reasons. What are the advantages and disadvantages or potential problems from different perspectives (financial, pedagogical, organisational)? If this is done on a large scale – how should it be arranged? In this poster, we focus on the experience at the University of Iceland – School of Education (UISE) where a decision has recently been made for the teacher education program in the next academic year (2010-2011) at the undergraduate level to combine most courses that have usually been offered both online (with campus sessions) and face-to-face (f2f). That is to make it a rule rather than exception to co-teach distance and on-campus learners. The authors of this poster have been involved giving their expert advice and are members of a work group set up to facilitate this change. In this poster session we describe the UISE preparation process and the guidelines that are being developed.

The Context – Earlier Experiences

Most academic staff at UISE teach both in the distance education (DE) and the regular program. A few years ago, some of the lecturers started experimenting with co-teaching when they were teaching both types of courses at the same time. In the spring semester 2009 there were 19 cases where the two course types had been merged. Based on earlier experience (anecdotal evidence) advantages can include less workload when utilizing online resources for both groups. Also, courses have been available which otherwise could not have been offered (too few students), and less expense to run a combined class rather than separate ones. On the other hand, there have been complaints of increased workload due to complicated planning. There have been difficulties running live f2f sessions, due to low attendance and/or technical problems while recording. DE students sometimes feel left out during live sessions whereas campus students have complained because technology use during the recordings can be bothersome. There have been scheduling difficulties for online/synchronous meetings; and some lecturers worry that there might be more tendency for dropout due to difficulties in accommodating different needs of the student groups involved.

Current Developments

The preparation during the spring semester includes the following: a teaching committee has identified a select group of UISE staff with experience in co-teaching in various courses connected with e.g., biology, arts & crafts, and pedagogy. They have shared their course designs and experiences with colleagues in monthly lunch seminars. A work committee appointed by the dean of UISE, is identifying more colleagues who could provide 'best practice' models. The plan is to set up a support web with good examples (recordings and/or show cases). Also, a network will be started among the teaching staff with one or more representatives from each discipline to facilitate collaboration and spread of knowledge and skills. Among needs identified by the work group are providing support and counselling through workshops on course design and on the use of technological solutions that are or will be available in the fall. One concern of the work group is course registration which needs to be improved to ensure that students indicate the form of study (online, f2f). This is important for the organization of the courses. A minimum number of f2f students may be set for running f2f classes. The work group will be providing examples and creating guidelines for the co-teaching based, e.g., on class sizes and different combinations of DE and f2f learners. Students have been included in the preparation (two members in the work group, one from each student group, f2f, online). Graduate students registered for an introduction course on distance education at the UISE have also been involved. They completed group reports offering their views and suggestions for guidelines. This poster is meant to provide food for thought and discussion about emerging hybrid forms of course designs in universities. How flexible can we be in the long run?

FINNISH BASIC EDUCATION IN KAUNIAINEN GIVES TOOLS FOR A GOOD LIFE

Riitta Rekiranta, Allan Schneitz, School of Kasavuori, Finland

The Dream School is a concept created in Kasavuori School (Finland) to make the school a better place. In dream school the students are in the center of everything. Our open source based ICT model is built to serve that purpose.

The Finnish language School Authority in Kauniainen, Finland has a continuous process called the Dream School to entirely re-think the purpose and experience of the school. This began with a need to address the rapid sociological and technological development and change, the need to equip the pupils for jobs that do not yet exist and a need give them tools for a good life. It is also a response to the simultaneous but opposed needs to cut costs and at the same time increase ICT use in schools. This necessitated re-thinking of everything starting with an "open-source" collaboration with partners, the school-student relationship, the pedagogy, and the supporting technology.

Our student-centric pedagogy strives to recognize and harness the real-world knowledge our students bring. For the learning process it is important that the knowledge and the emotions are united, because the emotion colours the knowledge, the motives affect emotions and the knowledge changes the motives. To accomplish this we have re-mapped the learning environment, the role of the educator, the teacher-student relationship and the school itself. We bring the emotion into learning.

Supporting the pedagogical vision is an open-source technology model. We focus on open-source, cost effective and environmentally sound open source ICT- solutions since we believe the more expensive closed models lack the necessary innovation.

Key considerations for the Dream school ICT:

- Extendability: the system is based on open-source and has standardised interface.
- Security: we are dealing with students and their personal data.
- Reliability: maintenance is done by companies.
- Usability: less is more and system needs to be easy to use.

Our goal is not merely the delivery of the curriculum, but the internalisation of the underlying concepts and the ability to think critically and act socially (http://kasavuori.fi/images/stories/dream_school.pdf). We believe that the ability to work will need continuous updating and developing of know-how. Media skills are significant for surviving in the ubiquitous society. The importance of networking and interaction skills will increase as well as skills to control and manage one's life. School has to be proactive (not reactive) and innovative. Kasavuori School is a learning organisation and learning is not only a student privilege. Continuous development and life long learning belongs to everyone, including staff.

Our goal is to conceptualise the development process in a way that would make it easy for other schools to start their own processes. Central for this is sharing the common values, knowledge, experience and also sharing certain common networkable development tools – the open source of learning. The following visual depicts the end-state and shows the balance between social requirements and content requirements.
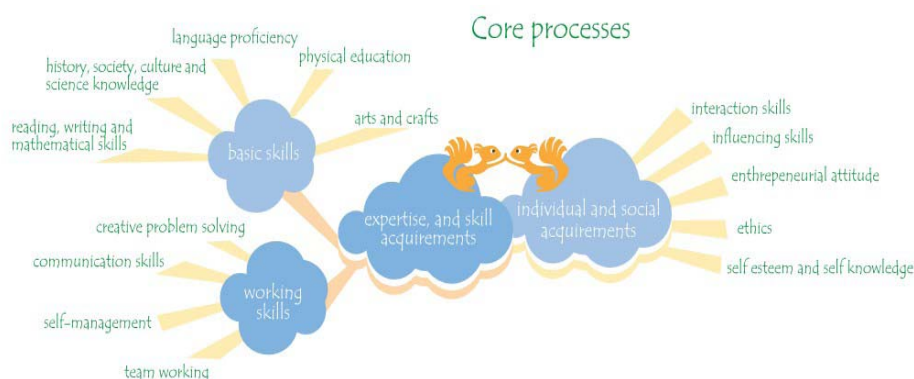
STICKAM AS A TOOL FOR TEACHERS' TRAINING COURSES

Panagiotis Antoniou, Democritus University of Thrace, Christos Gotzaridis, School advisor in Secondary education for sciences in Thrace, Greece

Introduction

The present paper explores the attitude of secondary education teachers serving in Thrace Greece, on the use of ICT in distance training courses.

The need for distance training programs

When organizing a conventional training course for teachers, there are many problems that have to be solved. We should begin by mentioning the distance that the participants have to cover in order to reach the appointed place not to mention the cost and time they need to move from the place they work to the meeting place. Another factor that has to be considered is finding suitable dates for the number of secondary teachers who would be expected to attend the sessions. In addition we should underline the fact that annually, 20% of the Science secondary staff is replaced by new members. As a result a considerable number of teachers need training courses as well as an easy contact with the educational administrative centre and their advisor for support. These considerations led the Science advisor to search for more effective forms of organizing training seminars and workshops.

Training through the Stickam website

The first attempt to find ways for distance cooperation with the teachers of the region was supported by the European education program *Rural Wings.* As the effort was in progress, a need for simultaneous broadcasting of lectures in more than one recipient in the area emerged. Thus, after searching the net for programs which were available for free video-chat communications, the Stickam was chosen. Stickam is social networking website that features user-submitted pictures, audio, video, and most prominently, live streaming video chat. Additionally, it allows users to embed their streaming webcam feeds into other web sites via a Flash player.

Methodology

The present group of secondary teachers attended two training seminars via Stickam videochat service. The group was composed of 39 Science teachers (18 female and 21 male) who teach the subject of Geography in the prefecture of Thrace, Greece. The questionnaire included seven items in the 5th Likert scale and three open ended questions inviting the teachers to describe the weak and positive points of these seminars.

Result and conclusion

The results of the questionnaire analysis show that the majority of respondents have a positive opinion for web training courses. Given that these teachers are not familiar with similar activities, the significance of their positive attitude at such large rates has to be underlined. A factor that has decisively influenced the positive attitude of the respondents is the fact that they consider access to the platform easy.

The positive response to the third question, concerning an increase in their motivation for further training, should also be noted. The next question which explores the participants' opinion about the material does not share similarly high rates. Combining the last two results, though, we can argue that motivation for participation will continue to be high once the educational material improves and as long as the participants get more familiar with the Stickam.

When combining the answers to the open questions and the rates of acceptance of distance training courses, it is evident that the respondents do not hold that this form of communication can replace the personal contact. However, they do believe that it is an effective tool in training as it saves time, money and as it eliminates distances.

BLOGS IN PHYSICAL EDUCATION (PE) TEACHER'S TRAINING

Maria Maheridou, Panagiotis Antoniou, Thomas Kourtessis, Andreas Avgerinos
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Web 2.0 technologies such as blogs have harnessed the social networking and community-building potential of the online environment, enable sharing and collaboration between geographically remote users and offer the opportunity for new forms of student-centred pedagogic practices. Educational blogs might enable new forms of effective teaching and learning and often reported as social software tools, as they support a variety of ways of learning: sharing of resources, collaborative learning, problem-based and inquiry-based learning, reflective learning, and peer-to-peer learning. Likewise, blogs are Web 2 tools that support reflective practice and active student-centred teaching.

Learning theories and blogs

The design of online learning materials – so and the different ways software tools are used to deliver it to the student – can include principles from behaviourist, cognitive, and constructivist approaches to learning. On the other hand, blogs often reported as social software tools. To integrate the social dimension into the pedagogy of online learning environments, the synthesis of the cognitive constructivist and socio-constructive approaches was recently proposed.

This approach emphasizes the socially and culturally situated context of cognition, in which knowledge is constructed through shared efforts, as the interactions through collaborations or discussions on educational blogs, enable knowledge to be constructed individually but mediated socially. However, it is also pointed out that even with increased "learner centeredness", there will still be significant demands on teachers to provide structure and facilitate the learning.

Educational blogging in Greece

According to the official statistical data, a rapid developing of use blogs in education is occurring in Greece. Some researchers pointed out that blogs can be used as effective educational "tools", if sat in a proper pedagogical pattern and blogging was reported as a powerful reflective teaching tool.

Despite the positive clues in Greece, there is a need of systematic experimental studies aiming to clarify which are the most efficient pedagogical strategies when using blogs as an online learning environment. As a result, there is also a weakness to determinate the criterions – and so the blog's constructional principals – as efficient Web 2 teaching tools.

Three proposed course blog examples

Leaning to socio-contractive learning approach and different cooperative instructional strategies, we propose three (3) course blog examples, in order to be used and evaluated in PE teachers training. In this paper, we focus in presenting the potential teaching processes, than the educational blog's context. The three (3) cooperative teaching methods are: Student Teams Achievement Divisions (STAD), Co-op Co-op (COOP) and Informal Cooperative Learning (ICL).

Conclusions

Because this paper refers to an early stadium research our conclusions are limited. It discusses our personal scope using blogs in education. It contributes towards our further understanding of blogs and student-centred learning, since at the same time provides a theoretical basis, as far as three different practical applications. However, there are clearly many more steps in learning to use blogs effectively as teaching tools. Our future research in Greece will be directed towards a structure experimental examination of their effective use to increase student-centred learning in PE teacher's training.

HELPING FACULTY MAKE EFFECTIVE USE OF EMERGING TECHNOLOGIES

Susan Ko, University of Maryland University College, United States of America

How can those who support faculty best assist them in making the needed transition to new technology tools? What are the types of professional development that might be most effective in helping faculty find appropriate teaching methods as they transition to the use of new technologies? How can one rapidly develop a set of best practices when emerging technologies are by their very nature both potentially ephemeral and relatively untested? This presentation suggests some approaches to supporting faculty as they seek to make the most effective use of emerging technologies to enhance teaching and learning in the context of their institutions, disciplines, and courses. These approaches are Establishing an Atmosphere of Exploration, the Integration and Setting of Guidelines, and creating Appropriate Forms of Faculty Development and Training.

Establishing an atmosphere of exploration means hands-on experimentation with emerging technologies in the context of a workshop or demonstration that can provide first-hand learning experience. Workshops and demonstrations of tools, whether delivered face-to-face or online (or in blended modality), can provide an environment in which faculty are able to share with and learn from their colleagues. However, this type of exploration should not be limited to technical training, but should also foster thinking about the how and why of using these tools and provide an opportunity for faculty to reflect on possible application to their own teaching situations. Carefully designed pilot programs can further assist faculty and academic administration in proving the effectiveness of different approaches for the use of emerging technology tools.

Whether an institution desires to formally integrate and adopt a new set of tools within their existing virtual learning environment or course management system, or prefers to leave adoption to individual faculty initiative, a set of guidelines should be developed that address such issues as institutional policy, resources available for support, and best practices.

A logical approach to faculty development and training is to expose faculty to examples of the different categories of tools – from social bookmarking research tools (like Delicious and Diigo) to visually oriented tools (such as Viddler and VoiceThread) to synchronous conferencing and whiteboard tools (like those offered by DimDim). One can devise a series of tasks and assignments to provide hands-on practice to faculty that will entail a thorough exploration of the tools.

Creating some sample online models based on real classroom use can serve to showcase effective implementation of Web 2.0 tools under real teaching situations – yet another way for faculty to learn through observation, reflection and discussion. Among the exemplars to highlight are those assignments which foster student use of Web 2.0 tools and the cultivation of information literacy regarding Web 2.0 resources.

In summary, faculty development has an important role to play in assisting instructors in the wise selection and implementation of Web 2.0 tools, and in encouraging them to develop appropriate, effective methods of incorporating such tools in instruction. Hands-on activities as well as observation of models, pilot programs, dissemination of research and evaluation data and collaborative approaches all provide ways to promote ongoing exploration of emerging technologies, critical reflection on the most appropriate use by faculty in their teaching, and the sharing of knowledge with peers.

VOICES: A SERIOUS GAME FOR E-PARTICIPATION

Lucia Pannese, imaginary srl, Italy

The aim of the VOICES EU-project www.give-your-voice.eu is to enlarge the scope of the VOICE project, which aimed at connecting citizens with the European Parliament via a software platform. The dimensions that the new project is adding are a semantic support to the VOICE platform, a social network and a Serious Game www.seriousgames.it/VOICES. This Serious Game wants to make citizens more conscious about the delicate dynamics of European negotiation issues and the European legislative process: the so called "Co-decision Procedure" (the main legislative procedure by which directives and regulations are adopted). In the Serious Game, players go through seven phases that map the Decision Making Process in the European Parliament. To do this they can directly take over the role of one of the four main actors in the legislative process: Minister, Lobbyist, European Parliamentary, European Commissioner. The game is over when all the steps have been played or when either disposable time or money has been spent. At the end of each step a player can see, as a visual feedback, his or her position compared to the "ideal" European position (corresponding to the collective bargaining outcome), as well as the value of all his or her playing parameters, e.g. in the Minister role these would be "working time", "popularity" and "family". The game flow follows the seven steps of the Decision Making Process as if they were seven narrative phases. Like an adventure game, during each step the player has to face the typical situations or problems that need to be solved in order to overtake a step and continue with the next one.

The full game will be demonstrated for all the four roles: Minister, Parliamentary, Lobbyist, European Commissioner. In particular the game structure as well as the decisions that the player can take will be explained and demonstrated together with the feedback system, the disposable charts and the glossary.

A "SERIOUS GAME" HELPING POTENTIAL E-LEARNERS TO IDENTIFY THEIR LEARNING NEEDS AND SEEK SUITABLE PROVIDERS/PRODUCTS

E-ruralnet network (Network promoting e-learning for rural development) represented by
Fouli Papageorgiou, Vassilis Tsipidis (PRISMA Centre for Development Studies, Greece)

The e-ruralnet network project

The e-ruralnet network (network promoting e-learning for rural development) addresses the question of enhancing lifelong learning (LLL) opportunities in rural areas through ICT, with a focus on the workforce: SMEs, micro-enterprises, self employed and persons seeking employment. Access to LLL for these target groups has been shown to constitute the basis for rural development. Previous research by the Euracademy Observatory also showed that there are important constraints that do not allow these groups to take advantage of ICT-enabled learning. These constraints are mostly related to infrastructure and low personal motivation of learners, who are "shy" of ICT. The e-ruralnet network continues and expands the Europe-wide research of the Euracademy Observatory aiming to build a body of knowledge regarding the "needs" and "constraints" related to e-learning uptake in rural areas; and to create a databank, through systematic documentation of supply and demand for e learning in at least 11 European countries, with the prospect of constantly updating and extending it to more countries in the future. A focus on innovation is adopted and best practice in innovative e-learning provision and pedagogies is included in the databank. Furthermore, the e-ruralnet network has taken the initiative to tackle the issue of needs and constraints related to e-learning more directly, addressing the prospective e-learners. To achieve this, an awareness-raising and guidance tool is being developed, using a methodology based on a "serious games" approach, aiming to familiarise the individual with the possibilities offered by e-learning and to equip e-learning providers too with a tool that would stimulate their campaigns and outreach to prospective learners. E-ruralnet is supported by the European Commission, Lifelong Learning Programme, ICT-KA3.

A "serious game" for e-learners

Previous research of the Euracademy Observatory (www.euracademy-observatory.org) has shown that a major constraint for taking up e-learning by employed and unemployed adults is their ICT "shyness" and their assumed lack of motivation and self-discipline – both of which are necessary to take up and complete successfully an e-learning course. The e-ruralnet network is currently addressing this issue by creating a friendly and easy to run tool aiming to help the non-expert learners to find out firstly their learning needs; and secondly the available e-learning products to satisfy them. Familiarisation with e-learning environments and demonstration of the benefits that can be gained by e-learning are also objectives of this tool, which is based on Games-Based Learning technology ("serious game"). The tool addresses all adults that wish to find out their training needs and seek e-learning providers and products to pursue further training, with a view of furthering their employment and career prospects, even if they have very little computer experience. The tool is also linked to the e-ruralnet inventory of e-learning providers, created by the e-ruralnet partners in 11 countries, in order to demonstrate to users how they can search for suitable e-learning products and how to evaluate them against their needs. Users are expected to set their learning targets, select the preferred learning methods, search the internet for suitable providers and pre-evaluate the costs and benefits of the selected options. This tool will become available to practitioners in the e-learning and rural development fields, including training providers and career counsellors. The tool also aims to familiarise the learner with the process of e-learning as such, create a positive attitude towards ICT-enabled learning and build self-confidence to those who do not possess high computer literacy. The GBL tool also features a basic web search tutorial so that the user understands how to search for relevant e-learning providers by using the internet. A report is generated at the end of the game which describes the e-learning needs of the individual according to a set of basic parameters. These parameters are defined through an extensive research of e-learning providers and users across Europe carried out by the e-ruralnet network. A help desk will be set up to provide support to training providers and counsellors who wish to promote the tool and monitor its effectiveness. For further details regarding the e-ruralnet project, visit the website www.e-ruralnet.eu.

THE LEADERSHIP ROLES IN A VIRTUAL LEARNING COMMUNITY

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Summary

As part of an educational research project in-progress, with the purpose of studying "the meaning of the leadership roles for the collaborative learning in virtual learning communities", this *paper* is being presented under the title "*The leadership roles in a virtual learning community*". After contextualizing that community, it will be listed some aspects that theoretically support both the leadership styles and the learning community concept. It will be described, as well, the results of the observed and analyzed interactions within the several student groups, regarding the different activities they conducted under the program themes proposed to the class. At last, it will be registered a group of remarks that support the questions subject to the research.

Contextualization

We consider that leadership is essential for the learning to take place and have a meaning for those who learn, associating the leadership perspective with the environment where learning occurs. Within this context, we shall refer to an educational research project targeting a Masters class, offered through Online Distance Learning, using an e-Learning platform, as interface. We shall be admitting that the learning results are directly dependent from the surging leaders, their leadership styles, the degree of participation and sharing of the class students, working towards the learning community building and consolidation. The project is based on three assumptions: (i) The leadership drives to "sharing", which becomes the support of collaboration in learning; (ii) The collaborative learning becomes reality under certain leadership styles; and (iii) The leader has got a meaning regarding the building and distribution of the learning. We intend to provide an answer for the following three questions: (i) "What type of leaders is developed within these learning communities?"; (ii) "What are the characteristics of these leaders?"; and (iii) "Which models do they fit in?".

Theoretical references

It is a requirement, a reference, even brief and superficial, to the concepts of leadership and virtual learning community. *Leadership* is a word with a complex meaning, but is admitted that it includes, totally or partially, concepts as intention, driving, expectancy, and interaction. Based on these, we have several leadership styles, commonly associated with different leadership models. It is important to be aware that these models are the result of different attributes grouping, which act as benchmarks to typify those models. The expression "*virtual learning community*" deserves a previous note aiming at the reinforcement of the word "*virtual*", which is a strong attribute of this community and projects itself on the operationalization of this concept. The learning community is intrinsically characterized by the inclusion of its members, their performance and mutual commitment, and by the work's organization in equally distributed initiatives. It is assumed the sense of belonging and the identification of common goals to be reached through dialog and sharing.

Interactions and their meaning

This topic briefly addresses the interaction issue and its meaning, by using data collected in a real e-Learning situation. The data has been organized in order to facilitate the quantitative analysis of interaction, and the evaluation of a potential correlation between higher levels of leadership and higher levels of interaction. The class has been organized in Groups, randomly defined, and the teacher has not imposed a coordinator or leader to them. For the purpose of this project we have accounted for every post at the asynchronous forum of each group. Since these forums are organized by threads, it is possible to know which way the communication is going through, and record who is responding to whom, as well as who is getting replies from his/her group mates.

Final remarks

This educational research project is still in-progress and at its early stages. It is expected that the mutual knowledge of the different group members will have a positive effect regarding the results in terms of collaborative learning. It will be interesting, as well, to analyze the similar and distinct attributes of those students who have assumed themselves as group leaders, and evaluating the roles they played as the remaining activities progress. At a later project's stage we might test, as well, how leadership occurs and develop when coordinator or leaders for each workgroup are previously assigned by the teacher.

ENHANCING COURSE OBJECTIVES THROUGH CYBER-ENABLED LEARNING

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Description

Web 2.0, Web 3.0, and cloud computing technologies offer significant opportunities to educators for enhancing course objectives and supporting pedagogical goals. Their utility was demonstrated via virtual learning tours conducted for Information Technology Systems (ITS) graduate students at the University of Maryland University College. Web 2.0 was illustrated through Twitter and Twibes, Web 3.0 through the application of Second Life, and cloud computing via Google Docs. The established pedagogical goals for the presented cyber-enabled learning approach are as follows: (1) Introduce students to the emerging technologies that will lead to the Next Generation Internet: Web 2.0, Web 3.0, and cloud computing; (2) Identify the optimal technologies, tools, and teaching strategies for establishing an effective educational platform that both engages students and supports reflective learning; (3) Enhance the course learning objectives of the first two core courses in the ITS graduate program, ITEC 610 and ITEC 620. During the demonstration, the developed approach for integrating the three technologies will be presented, the virtual tours' pedagogical objectives will be discussed, exemplary educational Second Life locations will be showcased, key lessons learned and recommended teaching strategies will be shared, and plans for future application of cutting edge technologies to teaching and learning will be reviewed. The audience will be able to view preparation and activity tutorials, illustrative tour video recordings, and sample student deliverables; as well as will be encouraged to participate via interactive questions and answers, and will be challenged to generate more ideas on integrating modern technologies for cyber-enabled learning.

Demonstrated Features

Through avatars, the students participate in guided virtual tours to visit educational sites in Second Life and experience virtual demonstrations, presentations, and simulations. Twitter and Twibes are used as platforms to capture student experiences in real time and to monitor for student difficulties. Google Docs is used to synthesize students' reflections and to produce a collaborative presentation. The visited virtual locations are directly aimed to enhance the objectives of the first two core ITS courses, ITEC 620 (Information Technology Infrastructure) and ITEC 610 (Information Technology Foundations), which combined have approximately 900 students enrolled in multiple sections each semester. Examples of the visited virtual sites are as follows: IBM Systems Technology Island, Cisco Live Conference, NOAA Island, Siemens Innovation Center, Sun Microsystems Public Sim, IBM Systems Technology Island, US Military Veterans Center, and Genome Island. ITEC 610 course objectives were enhanced by introducing a novel perspective on how data and information can be delivered, demonstrating how modern systems can support learning, and helping students discover a new economic and social order for study and discussion. ITEC 620 course objectives were enhanced via interactive virtual explorations and simulations on distributed data processing, computer hardware and architectures, and through participation in virtual technical sessions on secure communication networks, the "Internet of things," business and educational applications, and the trends in IT and their impact on the future developments. The utilized technologies during the virtual tours reflected recent IT developments.

Significance of Contribution

This is the first time that Web 2.0, Web 3.0, and cloud computing technologies have been integrated to serve as a rich, engaging, interactive, and reflective educational platform. The virtual tours support the pedagogical objectives of being engaging, interactive, and supportive of student reflection. A new level of information sharing, skills practice, and collaboration was achieved. A comprehensive survey shows that students find the course enhancement activities academically challenging, which stimulates their curiosity and sense of discovery, and enhances their critical thinking and problem solving skills. The students enjoyed their experiences, appreciated the exposure to cutting edge technologies and new exciting worlds, and would like to use such again in subsequent classes. Valuable lessons were learned from managing the virtual tours, which translated to recommended teaching strategies.

Links to overviews of each tour, tutorials, Twibes accounts, Google Docs presentations, and recordings of conducted virtual tours are provided at: http://polaris.umuc.edu/~ibojanov/Demos/Virtual Tours.

ITEMS PROJECT: TEACHING GEOMETRY ONLINE WITH MOODLE

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Introduction: ITEMS project

The central objective of the ITEMS project is the development of a framework aimed at improving the competences of science and mathematics teachers and, consequently, increasing the students attainment and interest in these areas. In order to achieve this the work programme is organised in three stages:

- Development of educational material for secondary school students in Science and Mathematics using a new model of course production based in the packaging of Learning Objects in an e-learning format.

- Dissemination of such material through training courses aimed at familiarising teachers in the management of the modules in a classroom environment using an on-line/blended approach.

- Mentoring teachers are experimenting the materials in their classroom in order to facilitate sustainable accessibility to the ITEMS materials.

To achieve ITEMS objectives a consortium with diverse background has been created. It is composed of European Schoolnet, a European institution, CEFIRE (Spain) and SLSS (Ireland), teacher training institutions at regional and national level respectively and, finally, Gymnasium Isernhagen (Hannover, Germany) and Gimnazija Poljane (Ljubljana, Slovenia), secondary schools that help to keep connected the consortium to the everyday reality of the school life.

Teaching geometry online

ITEMS modules are designed to enhance learning by means of developing key competences. The proposed learning model utilizes instructivist techniques to guide students to fully grasp terms/concepts (content), and then employs constructivist techniques to engage students to apply the information in collaborative contexts. On the other hand, it is intended that the use of a variety of online communication tools would be an asset by itself, because it helps students to become confident with a medium that they could use in future.

The approach used could be described as 'innovative' when compared to exposition-and-exercise, dominant use of textbook. Such approach is based on the use of a great variety of learning activities (quizzes, forums, glossaries, ...). The expectation is that all learning activities foster the highest degree of teacher-student, student-content, and student-student interaction.

The geometry module consist of an online course developed in Moodle (the well known open source VLE) and a set of teaching resources, mainly animations developed in flash and Geogebra, embedded in the course. The scientific content of this module is the standard content of the plane geometry, but limited to lines, angles and circles, adapted for students aged 12-14. This mathematical content is related to everyday examples, mainly from the field of astronomy. Materials are available at the following URL: http://www.itemspro.net/moodle/

Aim of the demonstration

The main aim of the presentation is to showcase the ITEMS geometry module management in a classroom environment. It will offer opportunity to discuss, to exchange ideas and collect feedback from participants. Participants will experiment different types of activities of the module using the student role under the guidance of the presenter. They will be prompted to evaluate the didactic material on the basis of their experiences. Finally, the classroom management of such a module will be discussed using the non-editing teacher role.

ASBCAST – BUSINESS BROADCASTED ONLINE

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Presentation of the work with creating a digital media repository, adding value/metadata to videos, linking them with an institutional repository and sharing the information. The media platform ASBCAST from Aarhus School of Business (ASB), Denmark was launched fall 2009.

We will demonstrate the importance of using metadata, why it matters to take the time to describe a video or a podcast with those few extra words. We will show how our platform http://asbcast.dk takes advantage of fields with metadata, and how we register videos and files.

In 2009 ASB set a strategic goal to integrate "IT in everything" before 2012. The initiative involved enhanced IT support for administrative processes and learning activities. ASB Media department and ASB Library rose to the challenge and worked closely together to develop the first version of ASBCAST, the media portal which is now a window to the outside world and a first step towards greater openness and easier access to research. It is research dissemination in a new way and a signal to the world that ASB is ready to share knowledge with industry and society.

ASB Library provided knowledge of metadata, cataloguing and other library skills to a "media world" which is lost in YouTube and Google. Enriching each broadcast with additional information from our institutional repository or other knowledge portals – mostly with links to publications and research projects – giving extra value to the video and new life to our institutional repository http://research.asb.dk.

The Rise of ASBCAST

As the amount of video material produced at ASB grew there was a need to find a system that could handle the recording and viewing of videos and digital media, and there are many systems for just that purpose. From large commercial systems, the nature of LMS platforms, to "Media Management Systems", to free systems like Vimeo and YouTube.

Why does ASB not just use existing channels for media on the Internet? Channels both users and content providers are familiar with, and who already act as aggregators of media on the Internet. The answer is that our own portal gives greater control over ASB rights, possibility to make advanced enrichment of the videos and the ability to quickly adapt to new formats.

We chose edumedia, a platform developed by Forskningsnettet (The Danish Research Network)[1]. Edumedia has a strong backend to register metadata and a fairly quick search interface. It is like YouTube free and easy to use. However, we wanted to be able to register more metadata and we wanted our own ASB frontend. In collaboration with Forskningsnettet and a company called Geckon we modified the platform edumedia to meet our needs.

Today we have a platform where we are able to register the following metadata: title, publisher, creator, contributor, keywords, category, type, abstract, additional information, rights (license information). We have chosen an editor to register the metadata to ensure a correct and uniform data registration. Regarding the videos in ASBCAST we work with a license agreement which is expressed by using creative commons licenses. Now, 6 months after the launch of ASBCAST the number of videos has exceeded 100.

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[1] Forskningsnettet is managed by the Danish Agency for Science, Technology and Innovation under the Ministry for Science, Technology and Innovation. It has its own Management Committee and its own Network Secretariat. Forskningsnettet is in charge of the operation and development of network and services to universities and research institutions.

TEACHING OUTSIDE THE "BOX"

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What might it look like to teach and learn outside the "box"? In this demonstration we will jump out and take a look at the use of student-generated content, the social web, and web 2.0 to enhance your instruction and engage your students. Have you thought about using blogs in your course so that your students can reflect or make their thinking visible to you? How would you assess and give them feedback? Have you thought about empowering your students to peer evaluate each other? What might that look like? Have you thought about podcasting or screencasting to provide engaging online student feedback? Could video enhance how you present your content? What would that look like? Have you ever wanted to open your course and invite the world in? Would you dare? I teach a fully online master's level course where the majority of the content, interaction, and feedback for the course take place outside the context of the course management system. This demonstration http://prezi.com/cjmoerciiegp/ will show you how I am exploring what it really means to be student-centred – how I design online interaction and online learning activities that make my students make their thinking visible to me by having them reflect, apply, report, explain, defend, refute, question, self-assess, peer-evaluate, summarize, synthesize, and analyze their engagement with course content and as a member of the online class community. I will show you what happens when several web 2.0 technologies (twitter, voicethread, diigo, edublogs, jing, meebome, seesmic, youtube, gcast, audacity, polldaddy) are stitched together into one fully online course in moodle. I will talk about how I did it and why, and what the students thought about it. And I will also invite you to explore selected tools for yourself, and to join my networks, so you can share with me what you know and what you learn. In this demonstration I will also discuss my criteria for the evaluation of instructional technology/tools. The technology must assist you to meet an instructional objective *better, faster, safer, easier, or cheaper.* I will share my lists of cooltools, videos, blogs and resources: http://etap687.edublogs.org/2010/01/22/114/ I will also demonstrate how to be more effective at presenting engaging online course content, how to engage students by creating authentic opportunities for student-centred interaction/collaboration and building community, how to provide more engaging student feedback and evaluation, how to explore, test, and evaluate the instructional potential & use of web2.0 cooltools to enhance online instruction, interaction, & engagement, how to explore the effects of peer and self-evaluation and the public and social representation of self, how to enhance the fully online primarily text-based asynchronous teaching & learning environment, to provide student access to resources & content they generated & contributed to the class to persist beyond the end of the term, and how to blur the boundaries of my online course to expose my students to the world "outside" the walls of our online course, and to invite the world "in" to our course.

Examples from my online course

- http://etap687.edublogs.org – professor and student blogs for ETAP687, http://etap687.edublogs.org/category/cooltools/ – list of cooltools
- http://www.screencast.com/t/MOLSgi8Y – tour of ETAP687 (example of jing screencast)
- http://www.youtube.com/watch?v=MvtxAkPP1xM – ETAP687 welcome
- http://voicethread.com/share/450225/ & http://voicethread.com/share/38310/ – course ice-breaking activities
- http://twitter.com/ETAP687 – ETAP687 text course announcements
- http://www.youtube.com/watch?v=UqRqYDEfKIs & http://www.youtube.com/watch?v=GxrmCuNX2bg http://video.seesmic.com/videos/zoJ4Uxx9JO – ETAP687 video course announcements
- http://groups.diigo.com/groups/ETAP687 – shared references for ETAP687
- http://www.gcast.com/u/alexandrapickett/main & http://tinyurl.com/knqap9 – ETAP687 audio feedback
- http://etap687.edublogs.org/2009/07/09/build-it-activity-feedback-from-modules-1-2/ – screencasted feedback
- http://www.gcast.com/u/alexandrapickett/main – feedback
- http://www.screencast.com/t/whCXu3oj4b – feedback, http://www.screencast.com/t/gvb43kilynw – response to question and how to instructions, http://www.screencast.com/t/P8rpgTNt1O – clarification, http://www.screencast.com/t/hhrJp3h2 – instructions
- http://etap687.edublogs.org/2008/06/02/reflections-blog-post-grading-rubric/ – blog grading rubric.
- http://etap687.edublogs.org/2009/12/17/my-discussion-post-grading-rubric/ - discussion grading rubric
- http://tinyurl.com/5l83or – exemplar courses for observation (faculty podcasts) for students in ETAP687
- http://www.ratemyprofessors.com/ShowRatings.jsp?tid=1106177&page=1 – my ratings for summer 2008
- http://etap687.edublogs.org/2008/08/26/i-teach-like-a-girl/ – student comments/quotes about course

WRITING PROCESS IN A WEB 2.0 ENVIRONMENT

Bjørn Teistung, Globalskolen, Norway

About Globalskolen

Globalskolen (www.globalskolen.no) is a Norwegian online school that provides education in the three subjects included in "Complementary education for children abroad": Norwegian, Social Studies and Religion&Ethics from 1st to 10th grade.

From the fifth grade in Globalskolen, the students are using *writing processes* as a teaching/learning method. This is a collaboration where the students are split in groups of four/five students.

The students write a first-version of a text, send to the teacher, get response, then they modify their story to a second-version. When this version is accepted by the teacher, the teacher puts students into groups of four/five students/stories in an online-forum.

Tools used in the writing process

The process is written in a closed forum in our LMS, pedIT. The students are using text-programme, webcam or audio-recorder, and the forum. The forum has full transparency for all students in the class and the parents, but is closed for everybody else.

Order for the writing process

1. The students make their first version for a short story.

   - The teacher writes response with suggestions for improvements.
2. The students submit their second sketch, and at the same time attach a recording-file or a movie-file of themselves, reading the short story.

   - The teacher now accept the short story (or not), and publish both the story and the recording in a "closed" forum with three/four other stories.
3. The students will now read each other stories, and listen to the other recordings as well.

   - Then they give response to each other stories, and also give response to their reading-performances.
4. The students make their last modifications after this round of response, and finally send the story to our class' homepage to be published.
5. The final story will be published on the front-page of the classroom at www.globalskolen.no, and some on the front page of Globalskolen.

eNOSHA, THE CONSTRUCTION OF A LEARNING OBJECT REPOSITORY: DESIGNING FOR FLEXIBILITY, REUSABILITY AND USER-FRIENDLINESS

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This paper describes the development of an open source Learning Object Repository (LOR), named eNOSHA (eLearning Neutral Object Storage with a Holistic Approach.), at University of Colombo School of Computing (UCSC), Sri Lanka. The e-Learning Centre (eLC) at UCSC has been developing learning content for a nationwide e-Learning Bachelor of Information Technology degree (eBIT) and a preparatory programme for the eBIT program (The Foundation in Information Technology, FIT). Since the start of the eBIT programme in 2002 a lot of learning content has been developed by the eLC staff and there was a need for a repository to help with the storing and reuse of learning content. The aim of the paper is to present and describe the development of the eNOSHA Open Source LOR in regards to three key concepts, flexibility, reusability and user-friendliness. This development was carried out in collaboration between UCSC and two universities from Sweden. As an overall software development methodology in the project we used the agile Scrum method. The development process started with focus groups consisting of staff from UCSC and external project members from Sweden. A requirement analysis was carried out in December 2008, and based on the analysis a plan was drafted for the development and implementation of the system. A participatory approach was used where users have been involved in the design, evaluation and implementation of the system. The initial plan has iteratively been revised based on feedback from the users.

Based on the testing of the system we gained a positive response regarding the searchability and reuse of content. Tests have, however, shown that there are additional features that need to be implemented to help with the usability of the system, Even though the system has been developed based on the needs of UCSC, one of the objectives has always been to make it as independent of context as possible. In our internal tests of the system, we conclude that the system is flexible enough to work in different contexts but the design may need some minor changes once tested in other organizations or cultures.

THE CREATION, USE, AND ISSUES OF ACADEMIC SOCIAL NETWORKING SITES

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The latest set of Web technologies, commonly known as Web 2.0, has given Web users the ability to create and modify live Web content without the need to know XHTML and without having the technology to access Web servers. The ease of building live Web content by the lay-public is one of the reasons the use of social networking sites, or SNS, have been increasing exponentially. FaceBook, MySpace, and Twitter have enrolled millions of users, many of whom have become dedicated followers. The Generation Y student is well connected; sometimes so well connected that is interferes with the learning process. As instructors, we see them in the class, more in tune with their host of i-devices, cell phones, text messaging and/or perusing the latest SNS news, rather than paying attention to the activities in the classroom. Some learning management systems have social networking components. These components may be an additional cost to the school, may not be flexible, and would be dedicated to an individual cohort. The goal would be to provide an academic environment that closely mimics the familiar environment of an SNS. The presentation will highlight the use and the issues of implementing an academic social networking site, or ASNS, that is at arm's length extension of the learning management system. The ASNS can be more of a social gathering and informal virtual meeting place rather than an environment linked to the formal academic structure inherit in learning management systems.

PRACTICE AS YOU PREACH: THE PROSE® ONLINE DIAGNOSTICS FOR QUALITY MANAGEMENT IN E-LEARNING

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PROSE® is a model, a toolbox and a network for quality management in the sector of Education & Training. It is now one of the leading networks for quality management in not-for-profit organisations in Belgium. PROSE® has been selected as a management model in the Guide for Public Management of Flemish Cities and Communities.

PROSE® has been presented at conferences of the European University Association (EUA), the European Forum for Quality Assurance (EFQA), the European Organisation of Quality, the French-speaking International Association of Teaching in Higher Education (AIPU), the European Community of Practice in Quality Assurance Forum (ECoP), and the European Association of Distance teaching Universities (EADTU). The PROSE® System has been recognised to be compatible with the European Excellence® Model Pathway (EFQM) and the PROSE® Quality label has been recognised by the European Social Fund (ESF) Agency in Flanders. In 2010, PROSE® expands the activities to the French-speaking regions of France and Switzerland, the English-speaking regions of the UK and Ireland, and the German-speaking regions of Germany, Switzerland and Austria. A Spanish version is in development for use in Spain and Latin-America. A system of quality labels for the recognition of good practices has been developed in 2004. Experts evaluate the practice and the policy of the institution or department on the basis of transparent criteria.

Recently, we've developed the PROSE® Online Diagnostics System (PODS). It exists in Dutch, French, and English versions. A Spanish and a German user interface is foreseen to become available in 2010. PODS aims to be a very user-friendly and transparent system to activate and analyse online self-assessments, evaluations and consultations. Its performance has been tested by the Royal Military School for Engineering (Brussels) and proven to be the most cost-efficient, value-for-money and fit-for-purpose system available on the Belgian market.

Administrators can use standardised questionnaires but also develop anonymous surveys. An ingenious system allows to monitor the responses without breaking respondents´ privacy. Response rates usually lie between 90 and 100%, ensuring high validity and avoiding an overload of paperwork. The model helps in selecting groups of respondents in the school or department according to the selected questionnaires. All questionnaires have been developed and validated by experienced quality managers and by persons from the sector: teachers/lecturers, school directors, and heads of department.

PODS not only is a flexible and all-encompassing system for quality managers in e-learning, but is also user-friendly and original on the users' side. In PODS, questions are answered but respondents also prioritize goals for improvement and provide evidence for good practices. Also they can write spontaneous suggestions or remarks to every item. The software groups and analyzes all data into tables, figures, and indexes, but also pools all prioritized and suggested items for improvement. The system thus not only generates quality indicators but immediately also potential plans for action, as the items in the questionnaires are very concrete and specific.

PROSE® also contains creative mindmaps for group discussions and for brainstorming sessions on quality issues, satisfaction questionnaires, and templates for project management in quality improvement. For AAL (anywhere anytime learning) and ODL (open and distance learning) we've developed a set of 3 specific questionnaires on organizational and process issues of e-learning. Sets of questionnaires are also available to assess the basic quality of a course or programme and the quality of e-learning curriculum development projects.

The PODS toolbox of PROSE® thus provides the e-learning community with an online tool to diagnose the quality of online courses and e-learning modules from a systems perspective. It complements online teaching & learning processes with an effective online evaluation and assessment of these processes within contextual quality management. The website of PROSE® is available on www.prose.be or www.prose.eu. Interested institutions or evaluators can ask for a PODS trial account by sending a mail to info@prose.be.

THE E-LEARNING IN THE CONTEXT OF THE SECURITY

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In the context of the Politecnico di Milano staff-addressed formative actions, the project pursues an on line course on specific topics pertaining to the security in workplace. The e-learning course, made up of both structured and interactive materials, has been thought to meet the formative exigencies of a varied body of users, which involves security staff, employees, students and all those generic visitors which walk through the Politecnico campus.

With the aim of a customized and independent delivery, the project offers alternative solutions to gain access to on-line materials while pointing mainly to the interactivity of the formative path and the multiplicity of content delivery formats.

The project has been carried out with the financial contribution of the Human Resources and Organization Area (ARUO) and the collaboration of the Prevention and Protection Service and the Computer Application Services Area (ASAI).

Didactics

Conceived as a teaching support to be used with discretion in e-learning and blended learning modes, this on line course is intended to pursue a sensibilization and orientation action addressed to a generic body of users and a support action oriented to those staff members already involved in face-to-face formation. Regarding the project's pattern, it implements materials that can be delivered in different formats and modes (online and offline) according to one's own preferences (audio-video; just text, just video; mobile version for audio and audio-video devices). There are, furthermore, multi-format resources available based on two main models: the "visual telling", characterized by a narrative sequence of images; the "microlearning", adapted to make a short simulation through the use of micro videos alternated with animated slides provided with professional audio comments. Structurally, it puts forward resources accessible through multiple paths: a free and direct navigation of structured resources which deal with every issue; alternatively, logic and interactive paths which aim at directing the student through simulated experiences facing specific issues (problem based).

Technology

The course "Security" has been developed with Moodle 1.8.5 version and integrated with a php specific application developed internally that creates a link to the Computer Application Services Area (ASAI) database of the University. Access the system allows data recovery and information about the connected users of the course, thanks to whom it is possible to organize a statistical monitoring system. Besides, it makes possible to implement the users' automatic validation, through a login centralized service, as well as the automatic delivery of certificates. Production of multimedia materials involved the use of Articulate presenter, a proprietary authoring tool which, working as power point-embedded application, that allows simple and fast creation of Flash presentations, compatible with all e-learning platforms in accordance with AICC, SCORM 2004 standards and preceding versions. The available functions make it possible to customize navigation and integrate contents provided with synchronized audio, html pages, multimedia interaction and quizzes. The logic and interactive paths have been generated by using the "Lesson" module of Moodle.

Delivery

The course definitive version comprises three modules, emergency management, display screen equipment risks and legal aspects, and is being delivered since May of 2009, with two years cadence, to all Politecnico di Milano staff. The only module related to emergency translated into English is constantly active and addressed to all occasional visitors. The flexibility of the course delivery becomes even higher if we consider the platform compatibility with access mode for mobile and with unloadable contents for mp3 and pal devices.

By answering and going through a final questionnaire the formative path concludes and a certificate is issued automatically by the system. The final questionnaire and the Automated Statistical System provide the main information which course monitoring is based upon.