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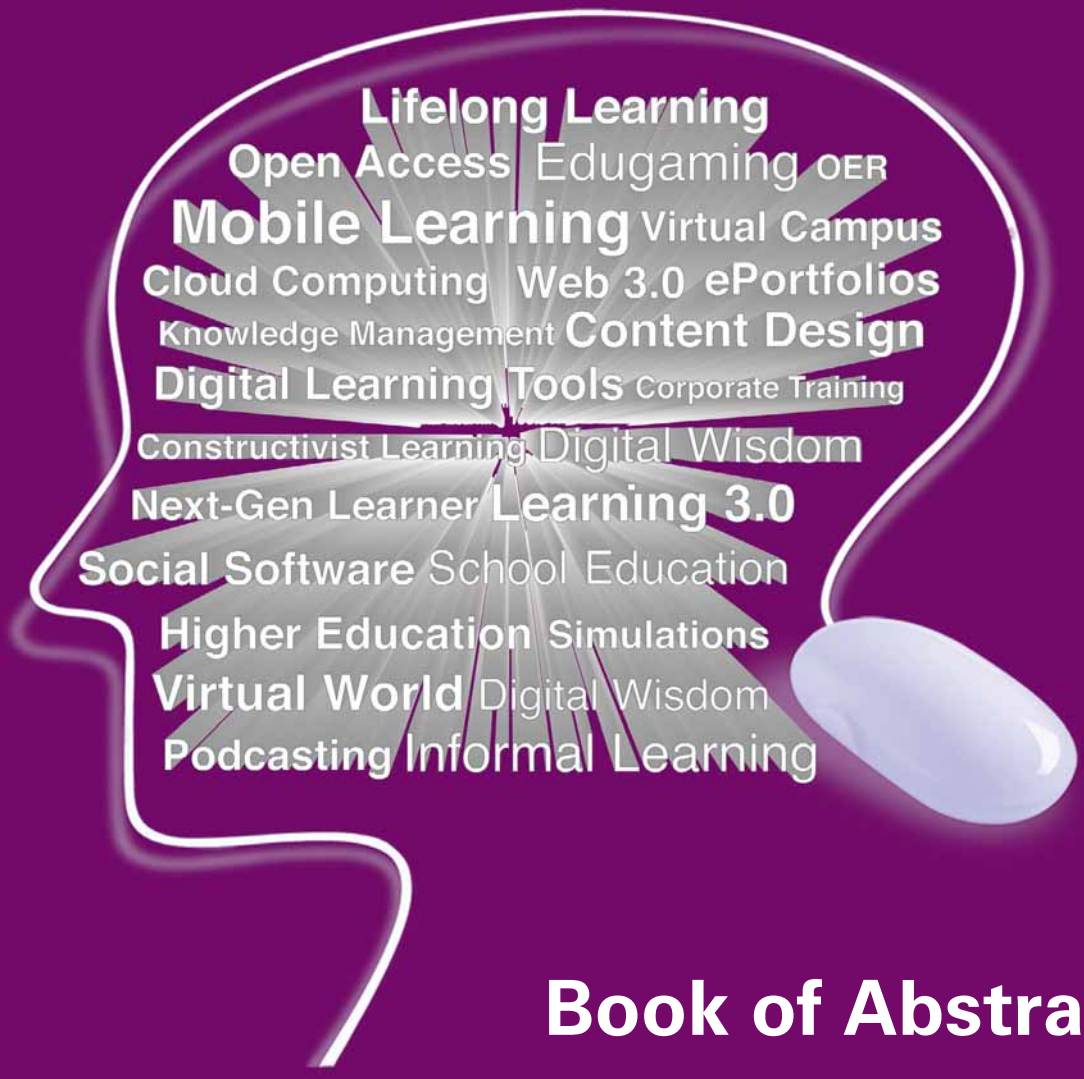

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Practice Makes Perfect!
Bringing Experiential Learning to Life

David James Clarke IV, Toolwire, Inc., USA & Charles Jennings, Duntroon Associates Ltd., UK

Introduction
The profound changes created by the Internet over the past 20 years have affected 21st Century knowledge workers more than any other group. The ability of individuals to access massive amounts of information on seemingly every subject presents both benefits and challenges to the learner. Simply put, it means that knowledge is no longer power. *Access* to knowledge – and turning that knowledge into action and decisions – has become the new power.

In order to succeed in this "brave new world" of information, today's students and leaning institutions, be they universities or corporate training departments, must broaden their traditional learning methods to embrace new performance-centric skills. Today's workforce requires agile minds that can locate and master skill sets or the knowledge they need, not simply memorize learning content. We call it "MindFind" – the development of skills to find data, not the development of skills to store information.

Today's "new frontier" requires fresh approaches to develop these *agile minds*. Among these approaches is "experiential learning," hands-on personalized practice with live Internet-based systems and scenario-based virtual worlds. These remote laboratory-based learning solutions can bridge the gap between education and experience in such fast-growing fields as IT, healthcare technology and business consulting.

State-of-the-art experiential learning solutions enable students in classrooms and eLearning programs to gain the valuable real world experience they need, while providing institutions of higher learning and corporate training departments with an arsenal of valuable tools that extend their campuses and engage their students.

The New Frontier: Richness versus Reach
The rise of technology and the development of the Internet have changed everything. It has changed the way we communicate and interact, the way we transact our business, and the way we learn and develop to enhance our personal and professional lives. The constraints of time and distance and the trade-off between *richness* and *reach* have all been broken.

Philip Evans and Thomas Wurster described a pre-telecommunications world where there was always a trade-off between the ability to provide rich experiences and to reach large numbers at lower cost. Equally in education, the rise of the Internet as a rich connectivity conduit has broken the traditional Oxbridge (Oxford and Cambridge) model: where students needed to attend top-flight bricks-and-mortar universities to have the richest experiences and learn from the top academics.

Technology has played a vital part in this change. The diagram below illustrates the changes that have occurred. The barrier to rich learning experiences has been broken, taking with it the unique selling point of classroom or face-to-face education. Now, students can achieve all the richness of a world famous professor without having to travel to London or Boston.

Learning: Living It Forwards, Understanding It Backwards

Gilly Salmon, University of Leicester with Aaron Porter, Vice-President of the National Union of Students, UK

> *Let's set a vision during Educa 2009- a marker on the horizon and our pathways towards it – as we enter the 2nd decade of the 21st Century already.*

In the complex and messy knowledge world of the early 21st Century, we have opportunities that no other educators have had before us. . Learning has become research and research is learning. Formal and informal learning are in a tangled web.

Despite the huge and rapid changes in education, learners are seldom active in shaping the future for learning and remain largely non-influential in changing the educational process. There are voids in our understanding of the way learners may wish to engage with new technologies for learning and this gap leaves room for stereotypical views, or those based on past experience rather than fresh insights. Examples include that the 'net generation' already knows how to learn through digital media, or that experienced teaching staff cannot embrace teaching with technologies. These are both generalisations and are just NOT TRUE!

The precise nature(s) of learning, teaching, assessment and knowledge construction through and with new technologies cannot be 'predicted', but each of us has a role in the construction of what futures do become available through designing and delivering learning, and in sharing experiences of successes *and* failures. We need to contemplate many possible futures, engage in dialogue and undertake evaluation with different stakeholders about choices available to us.

Some futurists make a distinction between trends and emerging issues; within the exploration, it is important to be aware of issues that emerge that could *not* have been easily predicated. Trends have their limitations since there are so many different forces acting on our society, including its technology and the varying ability of our policy makers and practitioners to respond. In 2009, the UK policy and funding arenas are dominated by attention to the learners' experiences in UK higher education, and to the changing nature of learners as they arrive at university more technologically savvy, more linked in. The power of individual choice has never been greater. There is a feeling that if we look back too much that we risk inventing the future based on outdated modes of teaching and learning. So the role of creativity, imagination and viable innovation in engaging with the technologies and pedagogies of the future has become very important.

How challenging it is to get a usable picture of our present…and even harder to get a vision of our future! From my perspective, there has been a huge amount of diagnosis so far, but not a lot of treatment! Some industries looked very very safe – perhaps the UK motorcycle industry in the 20th Century or the financial services industry in the first decade of the 21st Century! Could education and training in Europe go the same way by the end of 21st Century? My parents' generation stopped polio and TB and brought in new health and life goals as a consequence – educators now need to usher in a new world of learning

We need more ways of creating strategies and plans for growth and development that meet the challenges that social, economic and technological changes in society bring to education. We need to explore technologies that engage young learners but are currently peripheral in education. (We know a fair bit about student needs- but rather less about their future expectations and likely deployment for learning)

What will it be like to live with constant pervasive and ambient online networking, mobile devices embedded in everything and a massive summer garden of digital abundance?. What is the future

Next Generation Learning Strategies

Portuguese as a Foreign Language Teaching: A Blended-Learning Practical Case

Carla Sofia dos Santos Amado, Universität des Saarlandes, Germany

Abstract
The use one can make of the educational technologies within the frame of the teaching of Portuguese as a foreign language at a university level is still an area to explore and, therefore, broaches the issue of this PhD Project in progress at the University of Saarbrücken – Germany. The Portuguese courses range from Breakthrough (A1) to Waystage (A2) levels, thus representing a genuine case study to enrich the Portuguese Studies' Curriculum abroad by means of the Digital, i. e., contribute to better Portuguese linguistic competence and, hereby, develop materials and methods that can be more effective for the language acquisition process. It aims at verifying if all those tools used in a *blended-learning* context enforce and facilitate the learning in an inspiring way, and as such helps to measure the German students' most common difficulties while learning Portuguese.

Keywords: PLE, Portuguese as a Foreign Language in Germany, *blended-learning*, foreign languages didactics, errors and mistakes in the process of language learning strategies

Introduction
In the light of the arguments put forward in favor of the Common European Framework of Reference for Languages (Strasbourg: Council of Europe, 2001) and of the theme open to question within the scope of this Conference, the teaching process of a foreign language can and should be enriched by learning environments that stir it up using the active production of knowledge. In the instructions of the above-mentioned European Framework one can read:

> "They [the teachers] are expected to monitor the progress of pupils/students and find ways of recognizing, analyzing and overcoming their learning problems..." (2001: 141)

and this is the approach of this current PhD Project about *blended-learning* and teaching Portuguese as a Foreign Language at university level (under mentioned as PLE) – with the aim to identify, analyze, organize and interpret the most common errors and mistakes of German students using pedagogic and didactic materials created online. The intention is to prove that all Web 2.0 tools, used in a *blended-learning* context intensify and make the learning process easier.

However, the use one can make of the didactic technologies on a PLE teaching level is still an area with many issues to explore. It was from that lacuna that grew the idea of this Project being developed at the University of Saarbrücken – Germany, for the Portuguese Language courses from Breakthrough (A1) to Waystage (A2), thus setting up a case study to enrich the Curriculum of the Portuguese Studies abroad by means of the Digital. The main objectives are the contribution to better Portuguese linguistic competence of the German, based on the development of materials and methods that prove to be effective on the language acquisition process.

From Pedagogical Objectives to Video Game Design

Valérie Boudier, KTM Advance, France

Key Words
Serious Game , Business Game, Scenario, Game Play, Knowledge Management, Knowledge Base, Game Design, Cognitive Model

Introduction

"Serious Games" are training programs that require for their developments very contrasted professional protagonists : when the professionals of education express their needs in terms of "pedagogical objectives" "cognitive abilities" and "storyboards", the game designers think in terms of "pitches", "huds" "game play loops" and "triggers"...

This paper focuses on this cultural "gap" : filling it up requires a knowledge management approach as an intermediary stage. This approach conducts to the elaboration of a cognitive model that will provide the essential clues for the game designer to build up his game project.

The knowledge management approach is presented on the basis of a world wild program developed for BNP Paribas bank, and on which we could test the reliability of it.

Knowledge Management Approach

The Starbank project is an induction program which objective is to hand down to new hired a corporate understanding of the bank, including :

- The discovery of its various activities and services, and its organization's guideline,
- The understanding of the mechanisms underlying banking activity development
- The understanding of the bank's role as a financial go-between

The first task that KTM-advance undertook, before any attempt of Serious Game consideration, was to perform a knowledge management approach in order to identify, analyze and characterize the "available knowledge content" according to the "pedagogical objective" of the training project.

Knowledge Identification

The knowledge management approach is the first stage of the analysis: it identifies, analyzes and characterizes the available knowledge content according to the pedagogical objective of the training project.

It then clarifies these objectives and organizes the nature of the content to be displayed, on a cognitive point of view

Concept based knowledge
Concept based knowledge is a conscious recollection of factual information and general knowledge thought to be independent of context and personal relevance.

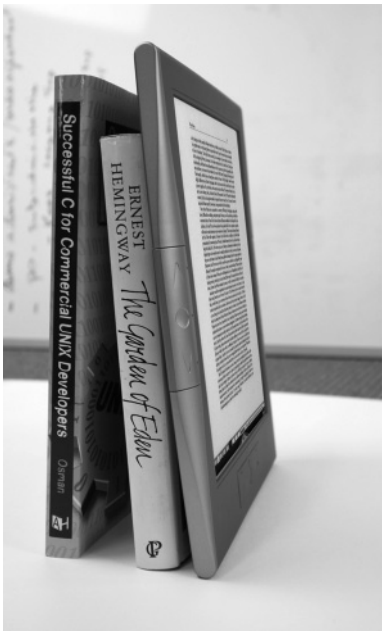
On specific project, declarative knowledge can also be considered as "concept based knowledge" since they are codified and accepted statements : information like "the strategic position of BNP Paribas" or its "Core Values" (Commitment, Creativity, Responsiveness, Ambition) are considered as concept based knowledge.

Procedural knowledge
Procedural knowledge is the expression of competencies that take part of a process : as an example, mechanics related to financial activities such as balances between investments, loans, cred-

Anyplace & Anytime Learning Using Mobile Technologies: The Use of E-Book Readers in Undergraduate Medical Education

Peter de Jong, Leiden University Medical Center, The Netherlands

Reading text from a computer screen for a longer period of time is not very pleasant. The technology behind a CRT tube or a TFT screen emits lights and generates a flickering image, which causes effects like exhausted eyes and headache. To solve these problems an innovative screen technology called E-ink has been developed. With this technique, the displayed text does not flicker anymore and the screen looks very much like real paper. Modern devices like E-book readers use these new types of screens. With these mobile devices, the user can display and read digital documents in PDF format. Initially E-book readers were only available as test devices and quite expensive. However, two years ago E-book readers became widely available in the consumer electronics segment. As a result, student and teachers can now easily access these new devices and we expect them to do so more and more, based on the immense increase of use of personal mobile devices in education.



In a pilot study, we investigated the usefulness of this new technique for medical education, as a replacement of books and syllabi.[1] From October until December 2008, we provided 15 medical students at Leiden Medical School with an E-book reader of the latest iRex model DR1000-S. For this study, we delivered all necessary text files on the reader, ranging from syllabi to selected chapters from commercial study books used in our curriculum. For obtaining the latter documents, we collaborated with several publishing companies. We invited the students to use the device during all kind of different learning scenarios such as lectures, small group meetings, collaboration with other students on assignments and independent study at home. At the end of the study, we asked the students by questionnaire to report their experiences. We did include questions about the technical performance of the device but also questions about the usefulness of the device in the educational process. We also invited them for a focus group meeting to evaluate the pilot.

We found that students encountered several small technical issues in using the E-book reader, but in general they managed quite well to work with the device. They were very positive about

Creating, Reusing and Managing Content

The BERLiN Experience: Exploring Institutional Attitudes to Open Learning

Andy Beggan & John Horton, The University of Nottingham, UK

BERLiN (Building Exchanges for Research and Learning in Nottingham), is a 12-month JISC-funded project to enhance and expand Nottingham's existing Open Educational Repository (OER), u-Now[1], one of the first OERs in the UK and a member of the international Open Courseware Consortium. The aim of the project is to progress the vision of sustainable OERs by making 360 credits of existing learning resources freely available online. The Management Board at the University has a longstanding commitment to open access and we aim to build significantly on both this and on the specific outcomes and experiences from BERLiN. The development of an OER and the wide distribution of open learning resources is a key strategic driver for University, in particular supporting the University's international strategy ('knowledge without borders') and fostering interaction with prospective and existing students in order to complement their studies, as well as building connections with other HEIs nationally and internationally.

Cross Cultural Learning and Teaching in Vocational Education and Training

Rupert Beinhauer & Thomas Schmalzer, FH Joanneum, Austria

Abstract:
Education and training have always been two of the most important factors in personal and societal development. Today and in the future it will be the international dimension of such activities that contributes added value in the building of European communities that span borders and will be instrumental in solving the global problems of tomorrow.

Due to the increasing work- and learning related mobility expected within the next years in the EU countries a rising need for improved qualifications which fulfil the requirements of a fast moving economy exists. VET institution and universities in the EU and worldwide are facing diverse types of learners with equally diverse ways of perceiving, processing and presenting information (learning styles). The learning behaviour of people with different cultural background seems to differ between countries and the process of how to deliver necessary qualifications must therefore take into account cultural diversity and through that adapt teaching behaviour accordingly. The Leonardo da Vinci project CCLVET aims at generating insights into these learning styles.

Main activities include profound surveys and focus interviews as well as the creation of teaching material including its testing in train the trainer workshops. The results will be summarized in an e-manual for teachers supporting their skills in teaching trainees coming from various countries. Successful approaches to teaching will be investigated and put into the existing cross-cultural learning styles context. Hands-on material will be produced to advice teachers on how to teach in culturally diverse classroom(s).

Quantitative and qualitative data will be collected. The quantitative part focussing on VET trainees and students includes surveys whose items based on accepted survey instruments such as the Approaches to Study Skills inventories for Students (ASSIST). Within a qualitative part “focus groups” deepen the information gained from the qualitative part via semi-structured, oral group interviews of VET trainers. These sources of information are evaluated by the consortium and recommendations as well as training materials and methods are developed to suit the actual approaches to learning of persons with different cultural backgrounds.

The current paper will provide an overview of the research methods used for gathering basic information on cross cultural differences in teaching and learning styles in Vocational Educational training gathered in nine European countries.

The project is funded with support from the European Commission. This paper reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

The multicultural classroom and approaches to learning and studying.

VET institution and universities in the EU and worldwide are facing more and more diverse groups of learners with equally diverse ways of perceiving, processing and presenting information. The learning behaviour of people with different cultural background seems to differ and the process of how to deliver necessary qualifications should therefore take into account cultural diversity and adapt teaching behaviour accordingly. The Leonardo da Vinci project CCLVET aims at generating insights into these differences.

For the last 40-50 years different researchers have studied the learning styles of individuals, leading to an enormous amount of material available. There is a strong appeal in the idea that teachers and curriculum designers should pay closer attention to students learning styles and

Learning as a Social Activity

A Study into Teaching and Learning in a Virtual World

Trevor Barker, University of Hertfordshire, UK

Abstract
There has been much interest at our university in working and learning in virtual worlds such as Second Life. The department of Computer Science has established a virtual campus within this system where a fairly broad range of learning and teaching activities take place. These include presenting textual, audio and video learning and teaching materials, delivering synchronous and asynchronous virtual lectures, providing simulations and group working areas (Barker et al., 2008). Recently there has been a great deal of controversy over such initiatives, for example at my own university lecturers are divided as to the efficacy of such an approach. Some see the initiative as an interesting addition to the range of teaching and learning strategies available, likely to motivate learners. Others see it as a trivial attempt to jump on the latest band wagon, with little pedagogical benefit or justification. At recent conferences a great deal of the focus of current research in this area has been on the social rather than the pedagogical benefits of such spaces (Ramondt, 2008).

In order to understand how best to make use of such virtual learning spaces, a series of empirical studies were undertaken. To this end, a group of 80 final year B.Sc. Computer Science students used the Second Life virtual environment in order to support their practical project group work. Groups of four learners used the university Second Life campus to hold meetings and to manage their software development projects. Students produced reflective video reports on their experiences of using the virtual learning environment. In this presentation I will report on how the group working areas were established and used by the learners, the types of activities that took place and the effectiveness of the approach in this context. Also discussed are the potential dangers inherent in this initiative related to individual differences and the cognitive burden imposed on learners.

Keywords:
Second Life, Virtual Learning Environments, Group Working

Introduction
In recent years, advances in technology and lower hardware prices have made it possible for three-dimensional (3D) virtual environments (VEs) and particularly computer desktop VEs to become popular (Li & Ting 2000, Mills & Noyes 1999), and be used for commercial, social and educational applications. These technologies and their applications are used in a variety of areas such as entertainment, engineering, architecture, medicine and science. A fairly recent development has been the use of the Second Life virtual environment (http://secondlife.com/) in education and training. Since its establishment in 2003, many hundreds of organisations have become involved in setting up educational and training applications using this system. For example, the University of Hertfordshire has recently established an online campus within the department of Computer Science which is currently being used in order to support the learning of campus based students. In consideration of the investment necessary in terms of development cost and staff

The New Learning Strategy of the Vehicle Inspection Organisation in the Netherlands

Pieter de Vries, TU Delft & Johan Schellingerhout, RDW – Vehicle Technology Division, The Netherlands

Introduction

The RDW is the home of the vehicle inspection organization in the Netherlands. This operational business unit has been confronted with external and internal developments that put a lot of pressure on the existing training organization. External developments include the increased motor vehicle usage, the changes and greater uniformity in regulations on a European and an international scale, fast technological changes and improved service quality demands from clients. Together with the rising average age of the employees and the related loss of knowledge and experience it became inevitable to acquire more inspection personnel and to train the employees better and faster. It was evident that a profound change in the learning strategy was needed to cope with these fast changing learning demands.

The present training situation

At the heart of the new strategy was the need to make training and learning more efficient, effective and attractive to be able to cope with the challenges, while assuring a high quality standard. The current training situation was mainly classroom oriented with retraining and examinations and additional working practices that demanded a large teacher capacity. This training was very much place and time restricted and dominated by the use of traditional learning activities, that did not fit the needed workplace related learning crucial for the changing working practices. In fact the readiness for new employees to start working was very much delayed by this traditional training approach

The new learning strategy

The new learning strategy focused on a blended learning solution with a combination of e-learning, practical assignments, coaching and training. At the heart of the innovation is a Learning Content Management System for the storage of content, monitoring of activities, progress and results, a course planning system, exams, user definition, allocation of coaches and module maintenance. The employees have access to the system via an electronic learning environment for user identification, communication, progress and results, exams and other organizational issues. This includes the development of a personal training plan for which the participant decides about the time, place and pace of the learning activities. A coach guides the employees and monitors how the practical assignments are carried out.

Essential for the newly developed content are the image based and the practical and visual orientation of the e-learning materials. Theory and practice are combined in such a way that the student can choose either way to acquire the needed knowledge. There is video, visual instruction material, visualizations, simulations, different types of coursework and the practical assignments linked to the e-learning content. Exams are done in clusters, via e-learning and in practice under the supervision of a coach and an external examiner. In this way the employees can do initial training, retraining and examinations as well as additional training and exams at the time of need and at a higher pace than possible in the traditional training system.

The focus in the first phase of the project is on compliance courses like an introductory course to RDW, a course about the Speed Limiter and one about Identification. Also an attempt is being made for a course on Integrity to use e-learning in a blended mode to develop social skills. The focus is though on the development of task related courses that includes the theory, skills and practical assignments to acquire the needed certificates for car inspection.

Creating E-Learning Modules for 5 Continents: Issues, Constraints and Best Practices

Estefania Belleudi & Morgan Riou, WhP International SAS, France

Introduction

In light of current world market trends (globalization, purchasing-merging-acquisition, delocalization…) major international groups have to deal with increasing numbers of staff based in different continents.
Therefore, training managers have more and more challenges to contend with: Adhering to tight deadlines for the development of new training courses which are tailored to the needs of each subsidiary and which are deployed globally and efficiently, whilst taking into consideration budget restrictions and local characteristics.
Thanks to the application of new information and communication technologies, distance learning knows no boundaries and is quick, efficient, flexible and economic. Today, companies are opting for eLearning, a solution which is complementing and gradually substituting traditional classroom courses.

These training courses, designed to be deployed to different subsidiaries of a company, are characteristic of the following: the image of the company depends mainly on the quality of the pedagogical content and technical methods used.
The stakes involved are therefore huge and the recognition of all aspects of deploying training materials abroad should be mastered in order to guarantee all learners can obtain a training course to suit their needs and boost the reputation of the company abroad.
How can we increase the value of this investment in international training from the outset? What are the obstacles which can hinder the creation of new pedagogical material? Can we easily "localize" an eLearning module which contains animations, quizzes, voice recordings and video sequences? How can we define the adaptation level which is appropriate for each country? What is the role of multilingual terminology management in the context of eLearning deployment? Which mistakes should be avoided in order to maintain the forecasted budget and deadlines?

Issues, Constraints and Best Practices

During her presentation, Estefania Belleudi, Operations Manager at WHP International will put forward good practices to facilitate the localization of training programs.
Emphasis will be focused on the importance of taking into account, at the earliest stage possible, the constraints of a training course to be deployed to five continents. The more participants are aware of localization issues, the more specific constraints are detected at an early stage in the workflow (from the beginning of the creation of the teaching material and program development), making it easier to deploy eLearning training materials internationally.
The main obstacles will be discussed in depth whether they be technological (use of Flash, XML, MP3, HTML files…), cultural (people's names, places…) or linguistic (terminology to be applied, definition of written and oral registers) in order to meet quality, linguistic, technical and cultural expectations. Here are a couple of examples which illustrate obstacles which are frequently encountered and which could be avoided:

eLearning and new technologies: New technologies play a major role in eLearning programs: LCMS platform, audio sequences, Flash files, interactive quizzes, graphic environment similar to that of video games, video dubbing etc. These different technologies can be rather complex to localize. It is therefore important to identify, during the design process the positive as well negative aspects of all the technologies used. In order to limit localization costs, it is necessary to avoid using multiple voice talents for dialogs and the voice-over method is recommended rather than audio dubbing.