Programme of the 2nd Education & Technology Summer School & Conference

Strasbourg, 17.-28. August 2009

European Doctoral College

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Organisation Committee

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Lectures, conferences and activities

	09.00-10.30	11.00-12.30	12.30-13.30	13.30-15.00	15.30-17.00	17.00-22.00
Sun 16.08						**Arrival**
Mon 17.08	**Arrival**			**Welcome reception**	**Key Note** (Prof. P. Marquet, FR)	**Boat Tour** (18.30)
Tue 18.08	**Lecture Module 1** Didactics of collaborative learning (Prof. T. Köhler, DE)	**Workshop** Module 1	Lunch	**Invited talk** Localization of cross-cultural social networks (Daniel Jung, NO)	**Group work** Preparation of PhD students' presentations	**Light Show at the Cathedral** (21.30)
Wed 19.08	**Invited talk** Computer Simulations as Research Method (Dr. Tino Schütte, DE)	**Group work** PhD students' presentations	Lunch	**The Wine road** (Wine tasting and visit of the castle Haut-Koeningsbourg)		**Dinner in Ribeauvillé "Flammenkueche"**
Thu 20.08	**Lecture Module 2** Qualitative interpreta-tion of quantitative data (Prof. D. Apollon, NO)	**Workshop** Module 2	Lunch	**Group work** Preparation of PhD students' presentations	**Visit of European Parliament**	**Show "au cœur des étoiles"** (21.30)
Fri 21.08	**Invited talk** Game Technology and Educational Research on Preconcep-tions (Dr. Myriam Danièle Coco, NO/FR)	**Group work** PhD students' presentations	Lunch	**Group work** Preparation of PhD students' presentations	**Workshop** Consortium meeting	**PhD Party**

	09.00-10.30	11.00-12.30	12.30-13.30	13.30-15.00	15.30-17.00	17.00-22.00
Sat 22.08	**Free time in Strasbourg**			**WE in the Alsatian Mountains** (Le Hohwald)		
Sun 23.08	**WE in the Alsatian Mountains** (Le Hohwald)				**Return to Strasbourg**	
Mon 24.08	**Lecture Module 3** The instrumental conflict, a concept for describing ICT uses in education (Prof. P. Marquet, FR)	**Workshop** Module 3	Lunch	**Group work** Preparation of PhD students' presentations	**Workshop** Constitution of research groups for the future	**Argentine Tango** (18.30)
Tue 25.08	**Invited talk** Reading assesment through computer tasks (Dr. N. Gavens, FR)	**Group work** PhD students' presentations	Lunch	**Group work** Preparation of PhD students' presentations	Visit of historical museum of Strasbourg City (to be confirmed)	**Concert of G. Fraulob folk orchestra** (20.00)
Wed 26.08	**Invited talk** The Four Pillars of Educational ICT Research (Prof. P. Dessus, FR)	**Group work** PhD students' presentations	Lunch	**Group work** Constitution of research groups for the future	**Visit of IRCAD and EITS (European Institute of Tele Surgery)**	**Walk at "deux rives" garden** (20.00)
Thu 27.08	**Group work** PhD students' presentations	**Workshop**	Lunch	**Group work** Preparation of work programme of research groups	**Free time in Strasbourg**	**Gala Dinner** SOFITEL
Fri 28.08	**Workshop** Evaluation and improvement of Modules	**Workshop** Debriefing and preparation of E&T 2010	**Departure**			

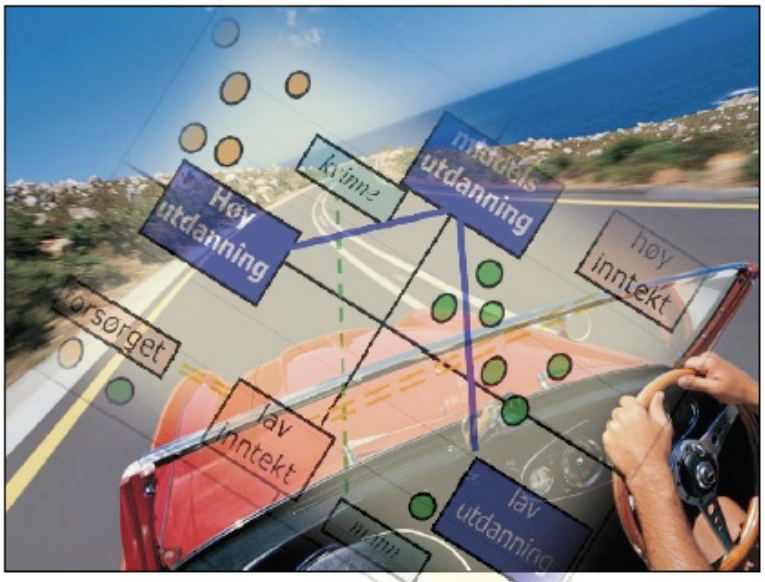
Abstracts

Lectures and invited conferences

EDUCATION AND TECHNOLOGY DOCTORAL SUMMER SCHOOL 2009 STRASBOURG

Qualitative interpretation of quantitative data
Examples from Correspondence Analysis

Daniel Apollon
University of Bergen



Qualitative approaches are frequently presented in contrast to quantitative approaches. "Hard" model-driven methods are also presented as opposed to softer empirical and interpretative approsaches.

This lecture offers a quick example-driven introduction to qualitative interpretation using Correspondence Analysis.

Correspondence Analysis

Correspondence Analysis is a widely popular **method** to explore multidimensional data sets. It is particularly handy to explore problems described with many categorical variables.

It offers the analyst an eminently **visual** and interactive, yet formal approach to data exploration and serves as a powerful platform to develop fresh theoretical perspectives.

The **biplot diagramme** produces a synthetic analysis and representation of, e.g., respondents and their answers together with their socio-cultural background. It enables the analysist or researcher to track individual and group profiles, interpret observations and their variables together and construct a comprehensive and empirical interpretation of the data.

There are numerous **applications** of C.A. in educational science, sociology, linguistics, marketing,sociolinguistics, public surveys, cultural studies

Game Technology and Educational Research on Preconceptions

Myriam Coco, Department of foreign languages, University of Bergen, Norway

ICT and educational research have many meetings points and one of them is the game technology. This communication aims at providing a concrete example of the use of online role-play games – performed in a Multi-users Object Oriented (MOO) virtual environment – as a tool to unveil preconceptions.

Research on language teacher's preconceptions has grown during the past decades (Archer, 2000; Barcelos, 2003; Borg, 2003; Woods, 1996), as preconceptions are now understood to have a significant impact on teachers' education and the learning conditions teachers eventually create for their students (Breen & Mann, 1997; Riley, 1994). However, the study of preconceptions remains problematic: they need to be first collected, then unveiled; the available methods and tools to do so come with advantages and disadvantages that must be seriously weighed by researchers (Barcelos, 2003).

One recent tool is the "Pratique d'Enseignement Virtuel", a didactical activity that includes a role-play game in a MOO that can either be used to help (student) teachers to become aware of beliefs they may host about their future profession and to develop better practices (Coco, 2006, 2008a, 2009), or to do research on (student) teachers' preconceptions (Coco, 2008b, 2009; Trebbi, 2001, 2003). Originally linked to the game world as online platforms for Dungeons & Dragons role-play games (Turkle, 1997), MOO environments seem to provide safe exploratory spaces where (student) teachers can express preconceptions, collect them, unveil them and study them without endangerering their sense of selves (Coco, 2008b, 2009; Danet, Ruedenberg, & Rosenbaum-Tamari, 1997). The textual interface of MOO environments and the use of avatars permits the creation and collection of unaltered data from which preconceptions can be unveiled in a collaborative process (Coco, 2009).

This communication will present one example of "Pratique d'Enseignement Virtuel" developed during the completion of my PhD and shed light on how the combination of this activity and the characteristics of MOO textual online environments may help addressing some of the problematic issues in research on language students' or teachers' preconceptions.

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Localization of cross-cultural social networks: Impacts on language and culture

Daniel Jung, University of Bergen, Norway

If developpers and producers want to successfully internationalize and localize social software (computer programs and code facilitating social online networks), so that users of different cultures and language origins may use it simultanously with each other in their own interface language, they must either (a) define a linguistical/cultural common ground of GCD (greatest common divisor) on which these cultures can meet, (b) favor one language/culture above the other, implying that the « weaker » part must adjust, or (c) offer a third culture which all users have to learn.

This is especially (but not only) interesting for platforms and communities, which make active use of the Third Place concept. The project uses thus, amoungst others, translation, mediation and contextualization problems in the internationalized last version of the enCore Learning Environment (educational moo-based platform). How can, e.g., a so-called tape recorder function (and its wording) be translated into an ancient Roman setting, making it work for a variety of users? How can a yes/no/maybe question be translated into languages whose cultures avoid blunt refusals? And how can its responses be handled across cultures? How can the notion, function and wording of *creating* be used in a collaboration process where devout muslims are involved (who believe that only Allah can create, humans only assemble)?

The goal is to map (a) what rationale, or unconscious assumptions, developpers and producers have while globalizing social software; what overt, or covert, strategies they pursue in doing so, (b) how participants of different cultures and language origins collaborating in social platforms perceive (and react to) the others' input and actions when those are mediated, and maybe even partly translated, by a computer program, (c) what is really new in computer/internet mediated networks.

The Four Pillars of Educational ICT Research

Philippe Dessus, Laboratoire des sciences de l'éducation & IUFM, Grenoble-I & -II Universities, France
Website: http://webu2.upmf-grenoble.fr/sciedu/pdessus/

In a nutshell, educational ICT research aims at studying how new technologies and forms of communication can be effectively designed and used for fostering learning and teaching. The theoretical foundations of educational ICT research are thus fourfold (Spector, 2008). First and foremost, psychology of learning provides important information on how students learn. Second, communication theory shows how language, is used in ICT for instruction, and through which media. Third, Human-Computer Interaction prescribes how artefacts are designed and used. Fourth, the research area of instructional design and development focuses on the teacher's activity and study how pedagogical scenarios can be built. A large bulk of research on each of these pillars is available, but is it possible to raise them at grade?

The purpose of this talk is to provide information on research on each of these pillars, arguing that research that lead to the growing of each of the pillars at grade is possible and necessary. The purpose of this talk is to present a comprehensive view on educational ICT research according to these four pillars, and to show how it fuels the research in the development of ILEs (Interactive Learning Environments). Psychological models of learning can be embedded in ILEs (Lemaire *et al*., 2005), NLP techniques (e.g., Latent Semantic Analysis, Landauer & Dumais, 1997) can be used in order to provide (semi)-automatic feedback (Dessus, 2009), and instructional design models can be invoked for refining flows of activity within ILEs.

First, we briefly present the field of research in Instructional Design. Then we present a comprehensive and historical view of Instructional Design models that can lead to the design and the implementation of learning environments, from behaviorism to narrativism. Some examples from our past and ongoing research will be given: checklists for teaching, self-regulated learning (Dessus & Lemaire, 2002), automatic assessment of summaries (Lemaire *et al*., 2005), the design of cognitive tools (Dessus, 2006). Eventually, we will present some possible research trends aimed at integrating knowledge from these four pillars (Dessus, Mandin & Zampa, 2008), which takes place in the EC-funded research project LTfLL (Language Technologies for LifeLong Learning).

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Reading assessment through computer tasks

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This presentation relates to the experimental structures used in Cognitive Psychology to evaluate reading ability. The National Observatory for Reading considers that: "learning to read is to develop capacities in two domains: the identification of the written word and the derivation of meaning for the understanding of text" (ONL, 1998, P13). The functional objective of reading is understanding, but this does not arise exclusively from reading itself. Thus, to what extent can activities linked to understanding (the use of knowledge stored in the long-term memory, how to process information etc.), be exercised independently and earlier than the formal teaching of reading. The identification of the written word is an activity inherent to learning and requires mastery of a number of cognitive processes. However, the mental mechanisms involved in reading cannot be directly observed. Therefore, have psycho-linguists been able to create structures facilitating performance-measurement of readers at a behavioural level. With the aid of computer-based tasks, this research focuses upon observing how the reader treats written language.

The aim of this presentation is to relate concepts of cognitive psychology in the context of reading to its tools and paradigms, especially those concerning assessment. There are indeed a number of structures which enable the assessment of reading, but not all of them have the same objectives.

This presentation is divided into four parts. The first addresses the importance of reading in a social environment (E.I.V.Q., 2005 ; O.C.D.E., 2000 ; P.I.S.A., 2002). Secondly, the different methods of cognitive psychology used in the study of reading (eye-movements, mental chronometry) will be discussed. Thirdly, the way in which these experimental paradigms are used in assessment will be presented by developing the objectives of the different forms of assessment. Finally, the tasks set up within this research project dealing with the assessment of the linguistic skills of learners will be outlined.

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The instrumental conflict, a concept for describing ICT uses in education

Pascal Marquet, LISEC, University of Strasbourg, France

ICTs are usually described as tools and the scientific observation of their use in education has followed three main paradigms over the past 40 years. The first paradigm (1970-1990) was 'technological', in the sense that it was expected by pedagogues that ICT in education could add value to learning situations. The second paradigm (1990-2000), was 'mediated', because digital media, like computers and the Internet were expected to be more flexible than traditional media. The actual paradigm is 'instrumental', due to the fact that within the framework of the activity theory, which is the dominant way of describing tools and their use in a social context, ICT is considered as complex artefacts that require specific cognitive processes for their correct use.

These processes are described on the basis of the interaction between the user and the software and two sub-processes are distinguished in the instrumental genesis (Rabardel, 1995). The first one is the 'instrumentalisation', and consists of the attribution of a function to each functionality or to each command of the software. This attribution is not necessarily the right one, but the user gets a mental representation of what he can do with the software or of how he can act with the software. The second sub-process is the 'instrumentation', which is the adaptation to the current situation of skills already owned by the user. Instrumentalisation and instrumentation occur simultaneously and without any control of the user itself, so that the instrumental genesis is mainly driven by what the interface suggest (the affordances of the software) and by the previous experience and knowledge of the user.

During this lecture, we will precisely define all the concepts and the processes that take place when a learner needs a computer for acquiring knowledge. We will show how the three types objects which are characterising a learning situation, didactical objects pedagogical objects and technical objects, are instrumentalised and instrumented at the same time, and how these processes can be facilitated, when designing a learning situation where ICT is required.

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Research projects

Capacity Building of Teachers and Trainers in Technical and Vocational Education and Training (TVET) in Sudan: A Case of Khartoum State

Hashim Ahmed, Technical University Dresden, Germany

Technical education in Sudan faces great challenges in such a way that most of industrial and agricultural projects; social and medical services and the exploitation of natural resources do not find the qualified technical cadres for their implementation. Moreover, those challenges increased and become more complex because of the rapid technical developments world wide. Qualifying of technicians needs several capabilities including establishment of well-equipped laboratories and specialized workshops and qualified instructors/trainers and the review of the curricula in accordance with the needs of the labour market and development (MHESR, 2005).

In respect to the vocational training, presently, there are over 400 vocational trainers in the Sudan that can be classified into three main categories: the first group is composed of experienced workers who make about 5% of the total number of trainers. The number included in this group is dwindling as a result of the lack of new recruitment. The second group of trainers includes former graduates of VTCs who constitute about 70% of all trainers. Some of these trainers upgrade their skills via graduate study to qualify for better working positions. The third group consists of university or polytechnic graduates who formulate the remaining 20% of trainers. This employment cadre is not appealing to most Sudanese trainers, which led to migration for many of them (Washi, 2004).

In the affair of use of computers and other multimedia in the teaching process in Sudan, international assessment studies have showed that the implementation of ICT in the classroom environment is still very limited in most countries (Pelgrum & Plomp, 1991).

In this presentation, the researcher gives a small glance about the condition of using ICT in TVET in Sudan especially the usage of computer and internet in the teaching process when administered a field research for his PhD study. Whereas the study pointed up to 90 % of the target population having nothing to do with the computer basically, not to mention the internet, So great challenges could face the education in Sudan generally, and TVET particularly, in adopting the new technology in the teaching process. These challenges according to a personal viewpoint are represented in: equipping the schools especially TVET institutes with computer labs, encouraging teaching in computer programs and computer literacy, develop new curricula and using ICT as mode for learning.

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On rising competences in technological education by implementing dual system´s elements under El Salvador conditions in the field of mechatronic

Reina Durán de Alvarado, Faculty of Pedagogy, Technische Universität Dresden, Germany.

Employability is one of the biggest concerns in El Salvador, especially for young people; according the Report of Human Development El Salvador 2007-2008, the number of unemployed in the high school and the superior education levels represented in 2006 were more than **30%** of the total unemployed (UNPD, 2008). Besides, the study about challenges in the educative system in El Salvador, it outlines the necessity to have a link between school and industry (Barraza, 2008). Under this context, in 2008 at Specialized Engineering School ITCA-FEPADE in El Salvador, began with the implementation of some elements of the German Dual System in technological education in the field of Mechatronics, with the purpose to experiment if this system developed **better competences** in students allowing them better job opportunities contributing and increasing their life condition. The main purpose of Dual System is to alternate the students formation between the academy and the enterprise.

One of the most important goals for technical education is to develop competences in the students; understanding competence is like a transferable, multifunctional package of knowledge, skills and attitudes that all individuals need for personal fulfillment and development, inclusion and employment (European Commission, 2004); besides, recognizing competences as "…dispositions of self-organized acting, as self-organizational dispositions" (Erpenbeck, Rosenstiel; 2007) and that competences are a disposition of, which appears in complex situation (Wiesner,2008).

Therefore, Dual System can be a strategy to implement competence approach in education in order to achieve better opportunities for students, preparing them for labor life. It was the reason of this research, where it tried to find out, if this study system develops in the students better competences than the traditional system (traditional system has been works since 1999) and under which conditions can be its implementation successful in the context of El Salvador

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Educational Media in the Home Learning Environment: The Influence of Parental Attitudes on the Use of Digital Media in the Context of Educational Processes

Claudia Börner, Technical University of Dresden, Germany

Media competence is one of the fundamental qualifications in our media-defined world. For that reason, it is not surprising that a significant task of the schools is to prepare students to enter that media-defined world. Therefore, even at the elementary school age, students are to learn to use the tools offered by the computer when completing academic tasks. This requirement is, for example, one of the interdisciplinary goals for schooling and upbringing stated in the curriculum for Elementary Schools in the Federal State Saxony (SMK, 2004).

If this interdisciplinary goal for schooling and upbringing is truly to be implemented; i.e., if the students use educational media such as the computer and the internet in the classroom during the learning process, this will also require a similar process and use of media at home, for example, in the completion of homework (Medienpädagogischer Forschungsverbund, 2009). This means that with the integration of ICT for teaching/learning purposes in the classroom, a new learning culture is forming in the schools and is having an effect on other realms as well, for example, the home learning environment.

The question here is the degree to which the students' parents are prepared for this situation in regard to their own competence with digital media and infrastructural resources, and if the parents perceive the necessity of their own support. In addition to the usual help in reading, writing and math, parents must also possess a pedagogic competence in regard to digital media, so that they can appropriately support their children's completion of homework assignments.

At this point, the intention of this doctoral dissertation is to investigate to what degree the use of educational media in the primary area, in the school, affects the home learning environment, and which pedagogic consequences arise from the extension of educational media use from the school to the home. Particularly of interest in this study is the influence of parental attitudes on the use of educational media in home learning.

The empirical study is comprised of two survey phases. The aim of the first survey phase is to take stock of the empirical object of research. Parents of elementary school children aged 9-10 (4th grade) are asked about their attitudes to and interaction with educational media in the home learning environment, and the importance they attribute to it. Connected to the quantitative investigation is a qualitative inquiry into the results, the aim of which is to increase the empirical value of the quantitatively reconstructed cluster types.

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Virtual Lab as an Educational Technology Tool: Analysis of Roles and Forms
Hassan A. El-Sabagh1 & Thomas Koehler, TU Dresden, Germany.

Modern information & communications technology provides a new and rich learning environment. In the framework of Virtual Labs (V-Lab), students learn by performing activities in a context that is similar to the real world. The instructional V-Lab is used in most cases for unguided discovery learning, as students can generate and test hypotheses in a simulated environment. This paper is a review of the literature related to the development of virtual lab technology in education with a special focus on science education. This review investigates roles of the V-Lab and its types, forms in addition to examples of virtual lab, as well as 3D and its effect concerning learner practice and presentation of visualization is discussed.
The authors search the electronic databases and the journal articles from 1988 to 2008 using multiple search terms with emphasis on purpose, methodology, results. The analysis leads to the following conclusions: (A) Learners who are exposed to the VR mode are more effective in learning than those who are exposed to the traditional mode; (B) V-Labs are almost equally effective for both presentation and the practice modes if 3D is used; (C) Specific guidance in V-labs seems to help students to perform better; (D) The virtual lab can be seen as a substitute.

Adoption of ICT in Higher Education.
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A present challenge for organisations in Higher Education is the integration of internet based technologies to support learning, teaching and administration processes. Universities aim at generating a pedagogical and economical overvalue by implementing E-Learning technologies. To achieve these objectives the organisation-wide usage of E-Learning technologies is essential. But in practice the use of technology varies. While some teachers have been continuously using E-Learning technologies for many years, others just start to explore the potentials of E-Learning for their daily work. In addition to these a third group of teachers categorically still rejects all kinds of technological innovations. That means systematic Change Management is essential in order to integrate E-Learning culturally and socially into an institution and to increase the acceptance of teachers facing the usage of technologies.
The P.h.D. Thesis “Adoption of ICT in Higher Education” describes an E-Learning integration from the perspective of psychological, economical and social fields of research (e.g. Adoption-, Motivation- and Consumer Research). This point of view will help to understand the adoption of educational technologies by teachers in Higher Education. It will be demonstrated how different patterns of technology use are developed and that resistance and uncertainty regarding technological innovations are common phenomena. The project reflects the State of the Art of current research. A model will be introduced which describes the adoption of E-Learning technologies by teachers in Higher Education. Starting by description of theoretical basics for explanation of the adoption behaviour results of an empirical study will be introduced afterwards. By that study different types of adopters in the field of Higher Education regarding to their motivation and patterns of ICT use in teaching could be identified. In this context measures and strategies will be introduced, which are helpful for developing of acceptance and competences of teachers towards technologies during the E-Learning integration.

Silver Users in a Digital Society

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New digital technology and services have started a new revolution when it comes to handling every day aspects in our lives. People today are not only passive users but largely producing content themselves (Brandtzæg and Lüders, 2008). While many citizens become active participants in this evolving digital society, others are excluded. One group underrepresented as users of new digital technology and services is third age users (Norsk Telecom, 2008, SSB, 2008; Nøhr, 2006). The third age is the life phase in which there is no longer employment and child raising to commandeer time (Weiss and Bass, 2002).

While 83 % under the age of 45 use internet daily, only 28% of those between the age of 65 and 74 do the same (SSB, 2008). The Norwegian Board of Technology (2009) claims that increased competence regarding technology is absolutely necessary in handling the increased population of older people. Still new academic research has neglected older peoples' use (Nøhr, 2006; Brandtzæg and Roibás, 2009). Former studies indicate that older adults are slower to acquire new skills than younger and generally require more help and hands-on practice (Charness and Czaja, 2005). This puts third age users of technology in a particular vulnerable group being active user of public services within the health care sector. The picture as to why this group of citizens is not embracing and adopting these technologies and services may be complex. Increasing the understanding of the complexities will enable to determine how to help this part of the population to participate in digital society.

The challenge related to the guiding research question has to do with understanding the complexity of how and why third age users embrace or reject new digital technologies and services. In essence, to be sure that third age users may adapt successfully to technology we need detailed information on how third age users' life is affected-, how they learn and understand-, and what kind of skills they need to use, in order to benefit from the use of new digital technology and services. A starting point is a preliminary model, which includes seven different facets involved when using new digital technology and services. To explore and document how these different circumstances confound and effect third age users' life in relation to use, learning and understanding new digital technologies and services and to further develop this model will be the main tasks in the project.

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Online Health communities: accessibility *versus* expertise?

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We are used to talk of online health communities as a place for informal learning among a multitude of patients who should have access to health and ICT.
The communities may be viewed as places where different kinds of expert (formal) knowledge about ICT and health are merging in their understanding of collective behaviour. Such experts prescribe specific forms of social life and online learning behaviour. I will attempt to describe a dynamic where the demand for universal access to health information creates a need for more expertise and vice versa. A tentative model is outlined below:

1. The scientist creates theories of collective organization and collective learning, combining biological and informational metaphors.
2. The manager targets, defines and organizes groups. He or she rationalises behaviors and health services using ICT in order to reduce health care costs.
3. The online doctor wishes to develop a model of solidarity among patients supporting each other though ICT, encouraging health prevention and information (upstream) and illness management (downstream.)

Sources

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Understanding ICTs Usage and its Role in Enhancing Teaching and research in Sudan Higher Education: Staff Members Perspectives

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The Study come into being to understand (**why)** in spite of the rapid advancement in use and application of ICTs (computer and internet) on education worldwide and the availability of excellent ICTs infrastructure in Sudan, its use is still weak and poor in HE in general. (**What**) The **study aims** to examine the main factors affecting use of ICTs in HEIs in Sudan (particularly HEIs in Khartoum state). Understanding these factors is important to enhance its uses and helps in removing obstacles, take right decision that facilitate successful utilization ICTs in Sudan HE. From a choice of **theoretical models**, the widely used, robust, accepted and famous **Technical Acceptance Model (TAM**) has been selected as a theoretical framework to examine the role of Social Norms (SN) Cultural factors and other External variables in influencing staff member use of ICTs. In fact, there are few studies have been conducted in Sudan in this area but none examine the mentioned factors[1]. The study do also investigate the role of ICT in enhancing teaching process and research from the viewpoint of staff members and try to reveals problems and obstacles hindered its use and adoption. **(How)** regarding **Methodological approach**, this study is **deductive and inductive** in the sense that it starts with **theory** and examines it in **reality** by **collecting data** through wide range of methods. The dada will be collected by using (Questionnaire, interview and observation) to compare the consistency and acquire a mixture of information and data from the **study area** (some private and public HEIs in Khartoum states). After gathering the data, **qualitative and quantitative analysis** will be performed using suitable program (SPSS). Appropriate statistical method will be applied (i.e Chi-squire test) in testing hypothesis. The study hopes in the light of the result to: **Come out** with clear understanding of factors affecting staff members' usage and adoption of ICTs and the obstacles hinder its use. Identify the role ICTs play in enhancing development in teaching and research. Develop framework or plan and reach appropriate recommendation to improve ICTs usage and adoption among staff members in Sudan HEIs.

[1] i.e Rose, G. and Straub, D. (1998) "Predicting General IT Use: Applying TAM to the Arab World", Journal of Global Information Management, Vol 6 No 3, has selected Sudan among five countries in their study to test TAM butt without including SN and culture.

Knowledge transfer in Web Based Collaborative Learning Systems

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This dissertation work is aimed to develop a strategy for didactic support of web based collaborative teaching and learning technologies in the academic teaching which contains both relevant methodical didactic and communications-oriented aspects to the knowledge transfer in the age of the digitized communication technologies.
The scientific approach is aimed at the exploration of diffusion processes of information and shall identify interaction processes within web based learning system to be able to describe knowledge transfer and also to be able to professionalize eLearning in the university teaching. Moreover, the added value of a networked thinking shall be clarified as a scientific conducting scenario in the knowledge transfer to serve for the modelling of modern didactic concepts as a base.
Out of the scientific examination, a model shall be adapted that connects the system perspective of social sciences (LUHMANN, 1970) with communication models of communication sciences (LAZARSFELD, 1968 (1944)) with connectivism theory of educational sciences (SIEMENS, 2004) to be able to clarify the influence of the interpersonal communication on the teaching and learning process within the digital teaching and learning environments. Moreover, this work shall deliver an economic value added result for the evaluation of web 2.0 technologies in web based studying systems.

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Education and Technology Platform

By default, the login for the E&T Platform (http://edu-tech.elcms.de/content) is the family name and the password is summerschool, except for those who already have a login and a password.

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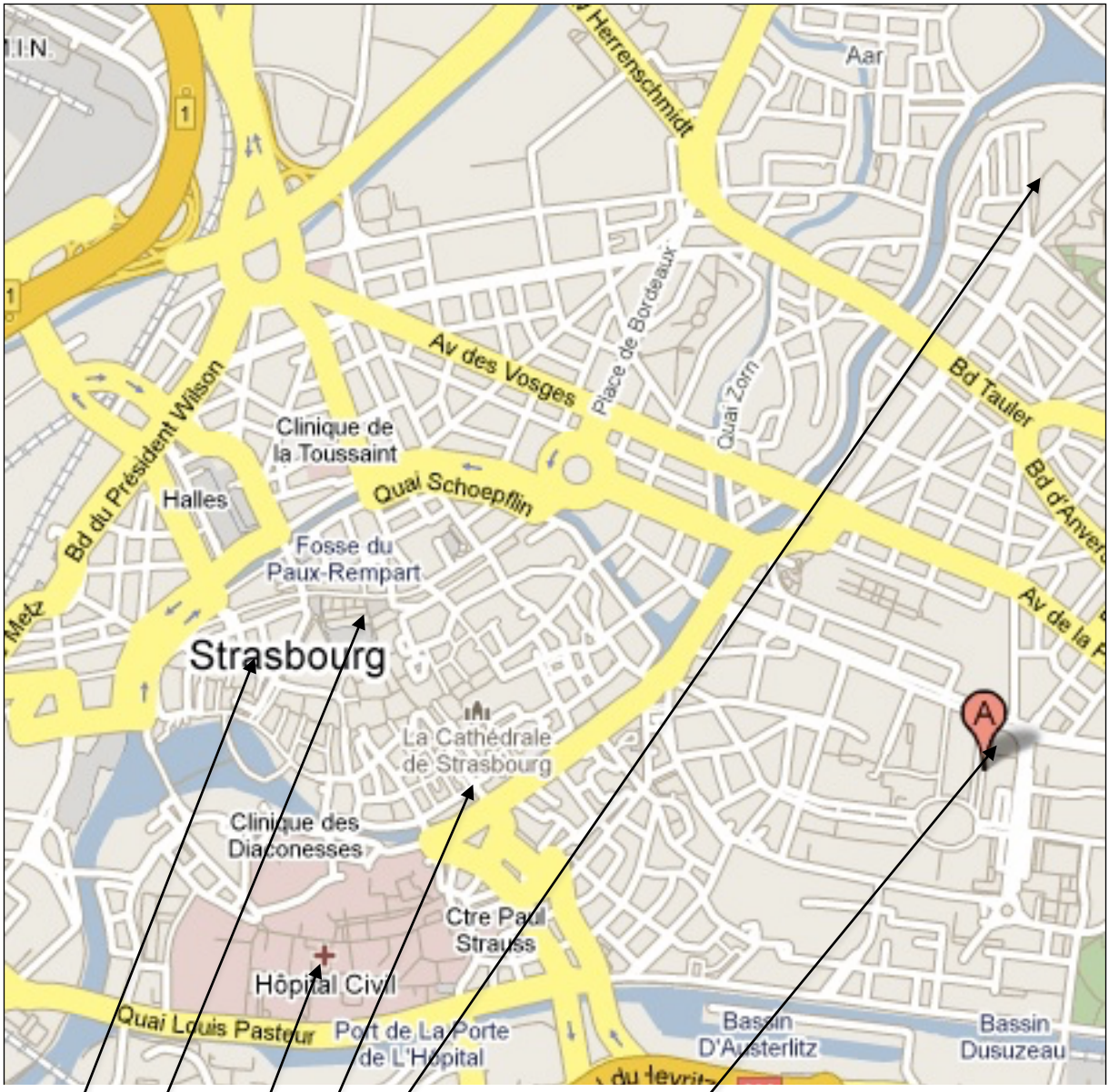
Map of Strasbourg



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— Historical Museum of Strasbourg City: 3 Place du Château

Map of Alsace

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— Wineroad tour and dinner in Ribeauvillé
— Week-end in Le Hohwald

The aim of the project "Education & Technology" (E&T) was to develop, test, implement, evaluate and disseminate a curriculum at postgraduate level in the field of educational technology. In order to reach the goal of qualifying and graduating PhD students in the field of educational technology five European universities and two public research institutes collaborated to build up a European network to award joint PhD-degrees.

The development of the joint English curriculum and the organisation of yearly summer schools by the network tap on the expertise of the contributing institutions.

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