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der Carl von Ossietzky Universität Oldenburg**

Volume 13

Ulrich Bernath & Albert Sangrà (Eds.)

Research on Competence Development in Online Distance Education and E-Learning

Selected Papers from the 4th EDEN Research Workshop
in Castelldefels/Spain,October, 25-28, 2006

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Editors' Foreword

The13 articles assembled in this volume originally have been submitted as papers to the 4th EDEN Research Workshop in Castelldefels/Spain in October 2006. They were among selected best conference papers and eventually also selected for this post-conference publication.

Thematically all articles contribute to "Research on competence development in online distance education and e-learning" and deliberately present research in their respective context. In accordance to the editors' understanding of research they are systematically and comprehensibly analyzing and/or investigating their cases in order to present facts and to reach conclusions that gain acceptance and recognition in the scientific community.

The articles in this book comply with the requirements of successful research. They have been scrutinised in a scientific peer-reviewing process and selected for publication. In accordance with the editorial guidelines authors elucidated their research methodologies and referenced individual articles to each other. Hence the 13 articles in this book are contextually related. The reader will find exemplary research works as well as contributions to the current discussions on competence issues and on teaching and learning in online distance education and e-learning.

One of the prominent membership services of EDEN is the provision of opportunities for professional development in open, distance and e-learning. With respect to research in these areas particular efforts are made biannually with EDEN's Research Workshops. The first event was held in Prague in 2000. In 2004 EDEN introduced a Best Paper Award. The competition made papers of finalists visible and distinct. For these outstanding papers two opportunities for publication were offered: One was EURODL, the European Journal of Open, Distance and E-Learning, and the other was the ASF Series on distance education edited by the University of Oldenburg with a volume on the conference theme of the 3rd EDEN Research Workshop. (c.f. Brindley, Walti, Zawacki-Richter 2004).

More emphasize on research issues in open, distance and e-learning was supported by EDEN with the launch of the policy paper on "Learning Innovation for the Adapted Lisbon Agenda" in May 2006. This important document is being made available for the reader of this volume as an appendix to our foreword.

In autumn 2006, the 4th EDEN Research Workshop was held. As stated in the call for paper the workshop aimed to focus on research both into fully online distance education, and also into e-learning that combines face-to-face teaching with online learning. Within the general theme, there were three parallel sub-themes: (i) Research into institutional planning, management and quality development for online distance education and e-learning; (ii) Research into innovative online teaching, learning and knowledge building (including assessment issues); (iii) Research into online technology tools and services. In addition a special workshop was held on appropriate research methods and designs for online distance education and e-learning.

94 papers have been submitted and all were independently reviewed by at least two academic reviewers. 60 papers have finally been accepted and have been made available to the participants of the Research Workshop from the EDEN Website.

Regarding the selection of papers for publication 24 papers have initially been taken into consideration following the original idea of making the best of the 4th EDEN Research Workshop available in a book on research into online distance education and e-learning. With the approval by the EDEN Executive Committee and the Chair of the Scientific and Programme Committee, Tony Bates, the editors of this post-conference publication assembled best research papers along a coherent thematic structure rather than covering the widest spectrum of contributions to the Research Workshop. While reviewing these best papers it became apparent that a cluster of 13 papers dealt with aspects of competency developments in online distance education and e-learning. Eventually, all authors of these selected papers agreed on the revision and extension of their conference papers under severe time pressure. This allows us to proudly present a volume with 13 exemplary research papers, which particularly emphasize:

- Concepts and developments of competencies in education and training,
- Enhancing competence development in online distance education,
- Building up institutional capacities for competence development
- Developing competencies through curriculum development, instructional design, and assessment in online learning environments.

Thus, the reader of our book will find the following:

Part 1: Concepts and Developments of Competencies in Education and Training

Schneckenberg introduces the concept of competence for the context of higher education. He presents a theory-based discussion of competence models and compares methods for assessing and measuring competences with a focus on academic teachers.

Cattaneo & Boldrini analyse the trend and impact of information and communication technologies (ICT) on teacher's practices and competences in order to define the need for updating teachers and redesigning teacher training in Switzerland.

Dudink & Niveen reflect on competences particularly required from tutors for competence-based vocational education in the context of a commercial distance education company in The Netherlands.

Part 2: Enhancing Competence Development in Online Distance Education and E-Learning

The successful online learner is critical in **Borges'** empirical study. He raises the question about competences that enhance learning, communicating and collaborating in an online distance education environment.

Cleveland-Innes & Garrison examined novice online learners and their instructors and make an argument for the importance of teaching presence for learner independence as well as interdependence in online communities of inquiry.

Paulsen argues for cooperative learning in virtual learning environments that allows both learners' independence and a learning community. He introduces a set of instruments for achieving cooperative learning.

Edirisingha, Salmon & Fothergill present findings from a pilot study on students' learning with 'profcasts' and discuss the application of the podcast technology in large scale.

Part 3: Building up Institutional Capacities for Competence Development

Aczel et al. present results from a two-year research study identifying examples of innovation in relation to the e-learning strategies developed by higher education institutions and **Ehlers** reflects about the challenge for e-learning in higher education to support competence development.

Botturi & del Percio present results of a qualitative study which investigated the instructional design process of an e-learning unit in two different institutions. Their results indicate that differences between the teams largely depend on variables in the institutional setting.

Part 4: Developing Competencies Through Curriculum Development, Instructional Design, and Assessment in Online Learning Environments

Guàrdia, Sangrà & Maina reflect on the case method for a competence-based curricula design and present a four-component case model as a result of their qualitative research.

Aguirre presents findings from action research for improving online discussions design, implementation and evaluation in order to innovate meaningful learning.

Finally, the question about assessing competence-based learning in online distance education adequately is raised by **Barberà & Ahumada,** who study the strengths and limitations of a the e-Portfolio as an alternative tool in a validated assessment system in higher education.

All articles together represent an impressive wealth of exemplary research. They render prevalent reflections on critical topic areas in the current discussions about the future developments of effective and high quality technology-enhanced education and training in general and in online distance education and e-learning in particular. The reader will find substantiated reflections on the theoretical, conceptual and institutional framework of competencies as well as on teaching and learning strategies for competence development in online distance education environments and e-learning.

We hope that this volume will find our targeted readers: Participants of the 4th EDEN Research Workshop; the wider professional community within EDEN and beyond; the research community in open, distance and e-learning at large; teachers, scholars and students with similar research interest or interest in research-based argumentation in respective topic areas; practitioners, administrators and politicians in related areas of responsibilities, who seek foundation and underpinning for their argument.

For us, the editors, this volume provides an excellent opportunity for enriching post-graduate programmes, in which we are engaged:

The Open University of Catalunya (OUC) is currently running a Master's Degree in Education & ICT *(e-learning)* in which students can follow two different paths: the professional and the academic and research one. Regarding the last one, a number of courses are offered to match the competences they should get at the end of the learning process in order to be ready and able to start working in the research and final dissertation that will be required to get Ph.D. at UOC or elsewhere. This book fits very well as a support resource in this particular path. Furthermore it matches very well with the structured and scaffold-based approach to competencies of the Master's programme and the new 20-ECTS European Certificate in e-Learning Course Design and Teaching

(in English) which has just started. The book will serve as a benchmark on and will provide access to international-wide research.

The University of Maryland University College and Carl von Ossietzky University of Oldenburg are jointly offering the Master of Distance Education (MDE) programme. A course on research methodologies is being introduced to support practitioner research as well as to prepare graduates for a dissertation track. Selected chapters will serve as strongly recommended readings.

We hope that other schools are following our examples and develop their own strategies of making best use of this volume. Furthermore we hope that this book reaches its various targets. Ultimately we wish each author and the book as a whole impact within the actual policy, professional and scientific contexts.

The volume has been made possible by EDEN, the conference organizer, OUC, the hosting institution of EDEN's 4th Research Workshop, and Oldenburg University for integrating this volume in its ASF Series on distance education. Martha Cleveland-Innes provided an inspiring feedback on the sequence of the articles, and Franziska Vondrlik from the Center for Lifelong Learning (C3L) at Carl von Ossietzky University Oldenburg, deserves our highest regard for her intrepid editorial assistance.

Ulrich Bernath and Albert Sangrà**,**
Oldenburg/Barcelona, April 2007

Reference:

J.E. Brindley, C. Walti, C. & O. Zawacki-Richter (Eds.) (2004). Learner Support in Open, Distance and Online Learning Environments. (+ DVD-Video). Oldenburg: BIS-Verlag.

Learning Innovation for the Adapted Lisbon Agenda

Policy Paper of the European ODL Liaison Committee, approved by the Member Networks and released 3 May 2006 (http://www.odl-liaison.org/pages.php?PN=policy-paper_2006)

1. Introduction: A New Focus

The Lisbon Agenda has been adapted in 2005 to act as an updated focus for European policy development. The adapted agenda calls for a strong and fundamental effort to equip the European citizens at all levels with the right knowledge, skills and attitudes, and society at large with a full understanding why this is needed. The present education and training systems are not completely equipped to face this challenge through conventional learning methods. A substantial amount of learning innovation will be required for which the knowledge base is only fragmentary now.

In the new environment, the flexible, open, innovative – the so called "atypical" – forms of education are certainly in the position to offer contributions and solutions not only to make possible a more effective and efficient investment in education and research, but also to bring learning opportunities closer to SMEs and to help individuals to be more prepared for their working life and citizenship agenda. It is worth recalling, that in 2004 a Policy Paper "*Distance Learning and eLearning in European policy and practice: the vision and the*

reality" was delivered by the European Open and Distance Learning Liaison Committee (LC) to European and national policy makers in charge of learning innovation.

The Policy Paper was generally well received, broadly quoted and commented upon and produced a certain impact on European Commission action, particularly attracting the attention on the need of coordination among EC services, on the opportunity to connect the Lifelong Learning agenda and eLearning developments, and finally on the opportunity to consult more systematically the relevant professional networks and stakeholders on new policy developments.

Recognising that significant progress has been made in the last couple of years in many areas, the present document aims at pointing out a major problem that emerged in the last year of discussions on eLearning and ICT for learning: the knowledge gap on learning innovation. This problem is deriving from (1) a lack of priority for a comprehensive learning innovation within research programmes and (2) the lack of accumulation and utilisation of current practice and the few available research results, including the consolidation of the knowledge gathered and available. For successful implementation both are needed in a well-constructed connection.

This paper of the Liaison Committee addresses the policy level issues of the Lifelong Learning context as a natural continuation of its earlier recommendations which mainly concerned open, distance and e-Learning. The Committee feels that it is now the right moment to call attention to these issues, since the experience of the member networks, each one in its own environment, shows that it is not possible to bring ICT-supported learning innovation into mainstream education and training if the supportive environment and the right context are lacking. Sustainable improvement can only be reached if the use of ICT and flexible focus of learning are proposed not as a specialised theme in the periphery of policy discourse, but at the heart of it. The following sections 2 and 3 attempt to clarify the present situation, while the final section 4 proposes a few recommendations for urgent action by EU institutions, national governments and other stakeholders of education and training systems.

2. A Renewed and Re-oriented Investment in Research

It is widely accepted that Human Resources are the determining factor for the drive towards competitiveness and growth in the knowledge-based economy and are critical to the achievement of inclusiveness, social cohesion and equity. In parallel, globalisation, suggesting mobility for goods, services, labour, ideas and societal practices, coupled with the pervasive effect of the proliferation of information and communication technologies, is exercising a strong pressure on existing education and training (E&T) systems, which run the risk of losing relevance and effectiveness. In the past, these notions have been stressed time and again; however, in our view they lack until now comprehensive rethinking, supported by validated experience and solid research.

Educational research that is relevant within the actual policy context, timely, conceptually ambitious, culturally sensitive and, above all, of convincing scientific quality is now essential for the long-term success of Europe.

In all recently adopted Communications (and Reports, EU Policy Frameworks, etc), education, training, human resources and employability are being intertwined and increasingly related to reforms in national learning systems in Europe, in the frame of the *lifelong learning perspective*.

In order to conceptualize effectively the contribution of national and European E&T policies in achieving the goals set at political level in terms of development, employment, etc., it seems appropriate to recall the main relevant European policy documents produced over the last four years. In fact, education and training are exemplary as policy area for subsidiary to play its full role – also according to the treaty establishing the European Communities –, and the increase of the quality and the scope of EU initiatives fostering E&T quality, access and openness has been spectacular.

In particular, six relevant strands of actions related to E&T research can be identified:

- The adapted Lisbon strategy
- The European Employment strategy
- The commitment of the EU vis-à-vis Lifelong Learning
- The actions aimed at increasing mobility of learners, trainees and workers
- The Copenhagen Process of enhanced cooperation in the field of Vocational Education And Training
- The European Social Agenda

In spite of the fact that all these policy strands recognize the priority of human resources development and citizens' empowerment, research on education and training in Europe is presenting a number of critical weaknesses, which might jeopardize the ambition of Europe to grow and generate new employment.

Notwithstanding the importance of independent (i.e., not policy-driven) critical research, some key problems that European research in E&T present today can easily be identified:

- It is often poorly connected with the changes and innovation processes taking place in education and training systems and it is insufficiently focused on the challenges that E&T systems are facing;
- It is often limited by national disciplinary and curricular logics and funding streams and, consequently, does not often adopt an integrated thematic approach;
- At the national level, research on E&T often depends on both the education and the research authorities, among which a higher degree of coordination and synergy should be expected.
- In several countries it tends not to be exposed to internationalization and to be limited to the "national traditional mainstreams". This fact does not contribute to a high reputation of educational research within the international research community;
- At the EU level, in each of the DGs that provide funding to E&T research such research does not get high priority in the relevant Programmes (e.g. IST, Priority 7) while in specific E&T innovation Programmes Leonardo, Socrates, or Employment innovation oriented initiatives (EQUAL, European Social Fund) insufficient resources can be devoted to studies and research; furthermore, the efforts of these entities and programmes are not enough coordinated among themselves and with the respective national authorities;
- The scale of research funding is a very small percentage of the overall expenditure on education and training.

In order to improve the state of the art of research on Education, Training and Lifelong Learning at national and at European level – and so to increase its contribution to and impact on the required learning innovation –, it is necessary to devote higher attention to this field in terms of policy attention, implementation effectiveness and resources. This should be done at complementary levels, by improving coordination, evaluation and utilization.

This does not mean to limit fundamental and curiosity-led research, but to find a balance between autonomy/originality and the need for research leaders to be accountable to society on how and where they direct research resources when a compelling need to produce an impact exists in education and training systems, and in society at large.

We therefore propose the following concrete initiatives:

1. to promote educational innovation research and its coordination by well-organized measures at EU and national level. An effort should be made to create a visible and interdisciplinary area for research on learning innovation within the EU 7th Framework Programme for RTD, within the new Integrated Programme on Lifelong Learning and in the DG Employment and Social Affairs action lines devoted to innovation; the same should apply to National Research Plans, many of which tend to reproduce the architecture of the EU Framework Programme. At present finding a "place" and a funding opportunity for integrated and interdisciplinary research on learning system interaction is often impossible since every specific programme stresses much more technological or social aspects of research, defining "not innovative enough" or "not corresponding to the work plan requirements" any proposal which tries to balance and integrate the different perspectives through which one can study learning systems innovation.
2. to increase the relevance of educational research in Europe, with a focus on meaningful linking and integrating the existing research domains (pedagogy, psychology, technology, organization, economics, institutional reform, links to society, etc.), establishing further interdisciplinary contexts that might better relate to the present and future challenges of learning systems, according to new thematic clusters. An effort is required to make the research community understand the societal demand for accountability and relevance of educational research;
3. to evaluate and systematically utilize research results, thus maximizing the impact of research on innovation and effectiveness of education and training systems, and strengthening the case for increased funding to educational research.

3. A Lack in Acumulation and Utilisation of Available Knowledge

An excuse for not investing more in educational research might be that there are already so many results which are not used in practice that the first priority should be to transfer existing results to the educational practice.

Although this is not a good reason to limit investment in research, the argumentation contains a very good point: research results – and more generally experience and knowledge derived from innovative practice – are presently under-utilised in mainstream practice.

There are, in fact, several aspects in this problem that, in a rather simplified diagnosis, can be summarised as follows:

- the lack of accumulation of available knowledge, a typical "not invented here" syndrome that makes both researchers and innovative practitioners prefer "starting from scratch" and be "new heroes" of learning innovation in their own environments rather than build on recent progress made by someone else;
- the limited effort done to circulate results of innovative projects when the funding life-cycle expires;
- the lack of awareness by decision makers of promising – but small-scale – innovation results achieved by pilot projects and action-research;
- the objective difficulty to implement system level innovation in education and training institutions that have limited possibility (financial resources, flexibility, real autonomy, etc.) to activate change levers;
- the ways to promote top-down innovation initiatives are not always "user friendly", and the implementation models seldom allow people on the front-line – typically teachers and trainers – to take the necessary time and knowledge to become owners of the innovation proposed. That is usually stigmatised as "resistance to innovation" but is frequently a well-founded resistance to "unconvincing innovation", plans that do not match, nor negotiate with the visions of the world of the interested stakeholders. Institutional leadership should create top-down the necessary conditions for fruitful bottom-up initiatives.

Each of these five aspects of the problem requires action at the level of European Institutions, National and Regional Governments and other policy makers, not in the last place at institutional level. In particular, while we appreciate the increased focus that European Programmes put in recent years on valorisation, dissemination, sustainability and mainstreaming at project level as a criterion for selection of new proposals (and see the risk of a certain routine emerging without real change), we would like to attract the attention on the need to work at a more systemic level on knowledge accumulation and dissemination.

Not all the responsibility has to be put on project partnerships. Thematic showcases of project results - preferably cross-programme - might be an easier source of information and documentation than hundreds of half-dead project web-sites.

Encouragement to utilise research results and to implement large scale innovation should be made available at all levels of policy making, from the European Education Council to the leadership of education and training institutions; and encouragement does not only consist of visions and framework policy papers: it needs to include top level commitment, reward to innovators, strategies and monitoring instruments that help to learn from mistakes rather than killing anything that does not perform perfectly after two years and institutional sanctioning of actors involved..

This culture of support to innovation – that is claimed as necessary in the European economy and society – needs to be embedded first of all in every part of our education and training systems. If it does not happen within learning systems, it is very unlikely to happen in society at large. The capabilities in education institutions to implement learning innovation using ICT have been analysed in earlier papers of the Committee and in the HECTIC project.

4. Recommendations

Several points of action can be identified from the considerations expressed in the previous sections. Some call for immediate intervention, while others are more directed to set renewed working conditions to better link policy, research and innovative practice.

4.1. Recommendations for urgent Action at EU Level

U1. Establish a consultation and operational framework to guarantee sufficient resources for education and learning innovation research, eventually establishing a Bridge Programme or Action Line on Learning System Innovation, at both EU and national level. If this objective cannot be achieved, at least guarantee that existing work plans encourage and welcome an integrated and interdisciplinary approach to learning systems innovation.

U2. Increase the space and funding for research and evaluation within the new integrated programme for Lifelong Learning and within the DG Employment and Social Affairs initiatives oriented towards innovation, so to encourage the necessary links among Innovative Practice, Policy Making and Research.

U3. Guarantee that the new Lifelong Learning Programme pays sufficient attention and devotes appropriate resources to flexible and distance learning and technology supported learning, especially for the hitherto neglected areas of informal and non formal learning.

U4. Make sure that – when the new generation of European Programmes is starting in 2007 – visible research results and previous projects results are made available, in a user-friendly thematic approach, to new proponents to avoid massive "re-inventing the wheel" and waste of public resources.

U5. Dedicated policies at European and national/regional levels will be needed to stimulate and support leaders in E&T institutions to decide on and implement the strategic changes they opt for. These policies should address coherently personal and institutional development aims, to guarantee full adoption of the innovation agenda at all operational levels.

4.2. Recommendations for systemic Innovation Support at all Levels

S1. Link educational policies to broader innovation, competitiveness and inclusion policies in order to respond to the needs for education and training that result from the adapted Lisbon Agenda. Involve the professional environment both in the definition of the new Lifelong Learning Programme and in the implementation of its strategic actions.

S2. Develop effective mechanisms to let all stakeholders contribute to the development of a new research agenda. Promote utilisation of research results by stimulating both researchers and "research users" (practitioners, policy makers, education and training institutions) to establish collaboration channels and to adopt mutually understandable terms, concepts and – most importantly – some common value commitments and visions on future Lifelong Learning in Europe.

S3. Make all possible efforts to develop a culture of innovation in all education and training institutions and in all policy making bodies; concrete support and rewarding mechanisms have to be given as much importance as strategic orientations and financial resources to this purpose.

S4. Efficiently combine top-down and bottom-up approaches to learning system innovation, always reminding that innovation cannot be imposed: it has to be adopted, and the energy and motivation at all levels can only be sustained by promoting and allowing ownership of innovation by all stakeholders.

S5. More effective communication approaches are needed to involve media and create public awareness, but also to establish the capacity of policy makers to listen to the suggestions and the proposals coming from all stakeholders of the education and training systems. Transparent, coherent and service/support-oriented policy making processes and policy-derived Programme/project structures are strong motivators for the uptake of relevant and sustainable change.

The European ODL Liaison Committee and its Member Networks are available for European and national/regional authorities to support policy design, development and implementation as discussed in this Paper. They can provide unbiased practice-based expertise in almost all EU Member States covering most sectors of education and training. They can be instrumental in guaranteeing the flow of information, suggestions and feed-back which in our view is indispensable for the shaping of a Europe which is capable of playing a leading role in a changing world.

3 May 2006

List of Contributors

Dr James Aczel works at The UK Open University, where his research looks at the effectiveness of innovative educational technologies. He has played a leading role in a number of international research collaborations, with partners including MIT, the University of Cambridge, the University of Oxford and the United Nations. He has chaired the examination of The Open University's suite of Masters degrees in research methods for several years, and has won several awards for his work promoting knowledge exchange about teaching and learning

Manel Aguirre is a father, teacher and an online teacher and researcher. He has been teaching at the Open Universtity of Catalonia (UOC online university) since 1996 and nowadays is in charge of subjects like Educational Technology, E-learning Management Project, Knowledge Management and Communities of Practice. His Research focus is Community knowledge creation and sharing.

Mercedes Ahumada Torres holds a Magister in Sciences of Education, Specialist of Assessment for the Pontifical Catholic University of Chile (1997). In the 2002 concludes your doctoral studies on Sciences of the Education of University of Barcelona. Obtained sufficiency investigative and at present this one ending his doctoral thesis in assessment of competences. She is a consulting professor for Master International in e-learning; Master Official of Education and TIC (e-*learning*) in the Open University of Catalonia from the 2002. Likewise she has given teaching of the Doctorate in Society of the Information and the Knowledge in the same university, developing the evaluation based on competences by means of e-portfolio (2006). In your area of research she has developed numerous works, projects and reports in assessment of learning's; assessment of academic performance. From 2006 she works like investigator to the Interdisciplinary Institute Internet (IN3) in project e-portfolio: assessment of competences.

Elena Barberà holds a Ph. D. in Psychology (1995) and doctorate extraordinary award for the University of Barcelona (Spain). She is currently involved with; the Department of Psychology and Education Studies at the Open University of Catalonia as a teacher co-ordinator of the Educational Psychology area and; with Nova Southeastern University of Florida as an adjunct teacher for doctorate studies on Instructional Technology and Distance Education. She is the research coordinator of the group EDUS (Distance Education in Universities and Schools) and her research activity is focused on assessment, learning strategies and processes of teaching and learning in virtual contexts. Among her books they are: Open and distance education (2006); The education in the net (2004); To educate in virtual classrooms. (2004); The enigma of distance education. (2001); Assessment of teaching assessment of learning (1999).

Dr Ulrich Bernath; Adjunct Professor, University of Maryland University College; Vice-President EDEN. In 2006 he established the Ulrich Bernath Foundation for Open and Distance Learning and chairs the Board of Trustees and Directors. From 1978 until 2006 he has been the Director of the Center for Distance Education at Carl von Ossietzky University of Oldenburg. In 1999 he co-founded the online Master of Distance Education (MDE). He is co-editor of the ASF series on distance education and author of numerous articles reflecting organizational and conceptual issues in distance

education and open learning; he also serves as a member of editorial boards of EURODL, IRRODL, the American Journal of Distance Education, The Asian Journal of Distance Education, Distance Education, and the Journal of Distance Education/ Revue de l'Education á Distance. For more detailed information see his CV at www.uni-oldenburg.de/zef/ub-cv.htm.

Elena Boldrini is junior researcher at the SFIVET (Swiss Federal Institute for Vocational Educational Training). She has obtained the degree at the University of Lugano, in Communication Sciences applied to pedagogical contexts. Currently she is writing a PhD in the domain of Philosophy of Social Sciences, focusing on the thematic of the competences required by the actual typologies of jobs. At the SFIVET she is part of the ICT team, which investigates the theme of modalities and consequences of the usage of the ICTs in the vocational didactics and which accompanies several schools in the realisation of projects tightly correlated to this research theme. She also works – in the domain of the actualisation of the Swiss Federal Law for Vocational Training which implicates the renewal of all the Swiss vocational training curricula – to the realisation of professional profiles, in particular by analysing the working fields of professionals (Handlungsfeldanalyse) and identifying their competences.

Federico Borges has been involved in online teaching for ten years, and since 2000 he has been a lecturer in the Languages and Cultures Department at UOC, the Online Open University of Catalonia. At the present time he is working on his doctoral dissertation about the role of the online learner as a success element in e-learning. A selection of issues, articles and books related to the online learner can be consulted in his website www.online-learner.net

Luca Botturi holds a Ph.D. in Communication Sciences and Instructional Design from the University of Lugano, Switzerland. He is currently instructional designer at the eLearning Lab, and researcher for the NewMinE Lab at the same institution. His research interests focus on creative instructional design, design languages and team communication. He is active as trainer and consultant, and has founded seed, a non profit organization promoting the development of a culture of educational technologies for international development and non profit education.

Alberto Cattaneo is Senior Researcher at the SFIVET, where he is also Regional Project Manager of the ICT Team, and member of the LICENT research laboratory of the Catholic University in Milan. His main research interests are tied to the definition of a didactics related to the use of ICTs and more in general to the wide-range implications of Human-Computer Interaction and Computer-mediated Communication (CmC), but he also appreciates to deal with methodological matters and qualitative methods. He disserted his PhD thesis in Psychology, investigating the use of the CmC tools in professional groups from a communication management point of view (conversation and content analysis) and of the virtual learning environments (and LCMS) for learning from an ergonomic point of view, also joining a huge theoretical framework concerning activity theories. He was and is involved in different inter-national projects concerning the use of Virtual Reality both for training and psycho-therapy.

Dr M. Cleveland-Innes is a faculty member in the Center for Distance Education at Athabasca University in Alberta, Canada. She teaches Research Methods and Leadership in the graduate programs of this department. Martha has received awards for her work on the student experience in online environments and holds a major research grant through the Canadian Social Sciences and Humanities Research Council. Her work is well published in academic journals in North America and Europe. Current research interests are in the area of leadership in higher and distance education, disciplinary differences in online higher education and emotional presence in online communities of inquiry.

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D. Randy Garrison is the Director of the Teaching & Learning Centre and a Professor in the Faculty of Education at the University of Calgary. Dr. Garrison has published extensively on teaching and learning in higher, adult and distance education contexts. Most recently he has co-authored two books: “E-Learning in the 21rst Century” (2003) and “Blended Learning in Higher Education” (in press). Both books are shaped by the Community of Inquiry Framework.

Lourdes Guàrdia is lecturer of the Department of Psychology and Educational Sciences of the Open University of Catalonia (UOC). She is professor of the Master’s Degree in Education and ICT (e-learning) at UOC.Since 1996 is being working at UOC with different roles; as the Head of Multimedia Instructional Design Department for six years, as the educational and innovation project’s coordinator at the Educational and Methodological Innovation Strategic Area for two years, and as a lecturer the last three year. Doctoral programme in *Educational Sciences* at the Universitat del País Vasco. Degree in Linguistics and Master in Train the Trainers for second language acquisition at the Universitat de Barcelona. The focus interest in research is instructional design, educational technology and e-learning. She participated in several innovation and research European and national projects.

Helen Iggulden is a lecturer with the Flexible Learning Team in the School of Nursing, University of Salford in the UK. She has worked on several projects over the last eight years in research and developments in using interactive multimedia in education in a practice discipline and published a practical textbook last year “Care of the Neurological Patient”. She is currently leading a project that links a skills textbook with multimedia content.

Professor **Katherine Maillet** works at Institut National de Telecom (INT) in France. She has twenty years of professional experience in teaching and research: authoring distance learning courses, “virtual student mobility”, curriculum design, administration, project management, consulting, publishing research results. She was head of the foreign language department at INT for 10 years during which she was responsible for designing, implementing, and directing the foreign language curriculum, learning facilities, and its associated educational and administrative operations. Since 1991 she has been involved in a number of national and international projects which aim to integrate advanced communications technologies into language teaching and learning

methodologies. These include ERNEST and MIREHD, two GET projects for which she lead the language research teams; three European projects, DELTA's Multimedia Teleschool, ACTS LEVERAGE, IST UNIVERSAL; and the transatlantic project, CULTURA financed by the US National Endowment for the Humanities and MIT.

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Andreas Meiszner is a researcher and project manager at the Sociedade Portuguesa de Inovação (PT) and The Open University (UK). Andreas was part of the project management team of the InnoUniLearning project and is the project manager of the 2006 started FLOSSCom project. He currently focuses on informal virtual learning environments where he looks at free / libre open source software communities trying to identify if and how some of their principles might be leveraged to formal educational settings.

Ellis Nieveen has a Master's degree in Educational Sciences. Her areas of interest in the educational field include life long learning and learning on the job (e-learning), competence development/management and change management. Statement: 'people do want to change, but they don't want to be changed, they have to learn how to change'. She graduated on a project which focused on formulating management competences within a healthcare organization. She also has a Bachelor degree in Communication, differentiation: management. Her areas of interest in that field include quality assurance, (organizational) change management and professional development. Ellis has been active in commercial distance education since 2003, and is currently the quality assurance coordinator. She is involved in the process of implementing competence based education, from vision to implementation. Recently, she formulated tutor and support staff competences.

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Professor **Gilly Salmon** is Professor of E-learning and Learning Technologies and Head of the Beyond Distance Research Alliance at the University of Leicester. She is principal investigator for the IMPALA project (www.impala.ac.uk) and leads on Media Zoo developments (www.le.ac.uk/beyonddistance/mediazoo). Her research and practice spans the role of ICT in enabling change in Higher Education, through the development of research-led e-learning strategy, to pedagogical innovation in a wide variety of forms including mobile learning, wikis and blogs.

Albert Sangrà has been a part of the founder staff of the Universitat Oberta de Catalunya, UOC (www.uoc.edu), a 12-years-old online distance education university, in which he has been in charge of the development of its particular educational model, based in the principles of flexibility, personalisation, interactivity and cooperation. Doing that, he has assumed the creation and application of guidelines for the elaboration of teaching materials, the training of online tutors and support staff and the development of online training services for the students. He has also being involved in a huge number of projects regarding the use of ICT in teaching and learning, both from a fully online or blended approach. Prior to this, he has been professor of Education at a different university for 5 years and he was in charge of the training in decision-making and management skills for the civil servants with political responsibility at the Regional Government of Catalonia for 4 years.

Karen Staniland is Senior Lecturer in the School of Nursing at the University of Salford in the UK. She has been involved in healthcare practice for many years and in teaching health related subjects since 1980. She has extensive practical experience in Nursing, Health Education and Management. She is particularly interested in flexible methods of learning, including the use of eLearning in Nursing.

Dirk Schneckenberg is currently finishing his Ph.D. with a research fellowship from the Hans-Böckler Foundation. Until May 2006 he has been project coordinator of the European eCompetence Initiative (http://www.ecompetence.info), a research network funded by the European Commission. Since he started to work at the University of Dortmund, he has been involved in a number of EU projects in the field of eLearning and Innovation in Higher Education Institutions. Dirk Schneckenberg has worked from 2000 – 2002 as project manager in the imc university, which is a virtual learning space of the eLearning company imc, Inc. in Saarbrücken with a curricular focus on applied business informatics. From 1998 – 2000 Dirk Schneckenberg has worked as assistant for the head of department with Smartforce Prokoda, Inc. in Cologne. Dirk Schneckenberg has studied social sciences, history, Romance languages and educational sciences at the University of Cologne and the University of Sevilla.

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