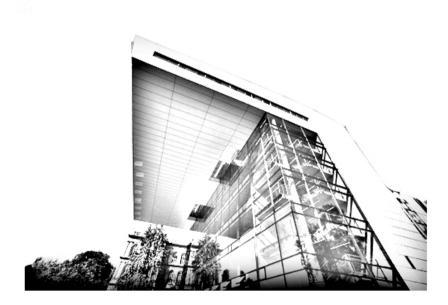




The 8th International Conference on Web-based Learning



August 19-21, 2009 RWTH Aachen University Aachen, Germany

Welcome Message	3
Program Overview	4
Keynote Talks	5
nvited Papers	7
Conference Program	10
Workshop Programs	14
Conference Venue	17
Social Events	18











#### Dear ICWL 2009 Attendees,

Welcome to the 8th annual International Conference on Web-Based Learning in the old Imperial City of Aachen, Germany. Since the first event in Hong Kong in 2002, ICWL has become a truly international conference held in Australia (2003), China (2004), Hong Kong (2005), Malaysia (2006), United Kingdom (2007), and China (2008). This truly international character of ICWL is also reflected in ICWL 09 where the authors of accepted papers come from 22 countries in 3 continents.



ICWL 2009 has been jointly organized by the Hong Kong Web Society, RWTH Aachen University, and the Max-Planck Institute for

Computer Science. We are grateful to many supporting organizations, especially the UMIC Excellence Cluster on Ultra-Highspeed Mobile Information and Communication at RWTH Aachen University, the inside group of companies, and the EU Integrated Project on Responsive Open Learning Environments (ROLE).

We are proud of our renowned Keynote Speakers Eric Duval and Wolfgang Nejdl, and our Invited Speakers. The 36 technical papers, selected with an acceptance rate of only one third, provide latest research results, while four workshops discuss early ideas for the future.

Aachen welcomes you as a city with rich culture, high-tech research, and a truly European spirit. In 800, Charlemagne not only started the ancestry of what is now Germany and France but also convened a circle of world-class scientists with connections all the way to Baghdad, at that time perhaps the top center of mathematics in the world (the word algorithm dates from there). The ICWL venue is in easy walking distance from the city center with its 1200 year old imperial cathedral and the city hall, formerly Charlemagne's palace.

Nowadays, Aachen hosts the largest technical university in Central Europe with over 30,000 students and a corona of research labs both in the public sector (Fraunhofer, FZ Julich) and from industry (Ericsson Eurolabs, Ford Europe Labs, Philips Research, European Microsoft Innovation Center). About 1,200 spin-off companies from RWTH Aachen University have created over 40,000 jobs in the region over the past 20 years alone. Our social program offers you ample opportunity to enjoy the Aachen spirit, even if you industriously attend all the sessions of the scientific program.

Too many people have contributed to the conference to thank all of them individually. Representative of their teams, let me at least mention my General Co-Chairs Ralf Klamma and Rynson Lau, the Program Co-Chairs Qing Li and Marc Spaniol, and the Organizing Chair Yiwei Cao.

The true success of the conference, of course, lies in lively discussions among all the contributing authors and the other attendees to bring the field forward. I wish all of you a stimulating and enjoyable ICWL 2009!

Sincerely,

General Chair Matthias Jarke

# **Program Overview**

9.00 - 9.30		Welcome (G)	
9.30 - 10.15	ŀ	Keynote 1 (G)	
10.15 - 10.45		Break	
	(G)		(F)
10.45 - 13.00	Session 1	S	ession 2
13.00 - 14.00		Lunch (S)	
14.00 - 16.15	Session 3	S	ession 4
16.15 - 16.45		Break	
16.45 - 17.45	Session 5	S	ession 6
17.45 - 18.15		Invited 1 (G)	
19.30 - 22.00		Reception	

9.00 - 9.45	Keyr	note 2 (G)
9.45 - 10.15	Invi	ted 2 (G)
10.15 - 10.45	i i	Break
	(G)	(F)
10.45 - 13.00	Session 7	Session 8
13.00 - 14.00	Lu	nch (S)
14.00 - 15.45	Session 9	Session 10
15.45 - 16.15	[	Break
16.15 - 17.45	Session 11	Session 12
17.45 - 18.15	Invi	ted 3 (G)
18.15 - 18.45	Closing	Session (G)
19.30 - 23.00	В	anquet

Full Papers	20 + 5 min each	Lo
Short Papers	15 + 5 min each	
Invited Papers	25 + 5 min each	
Keynotes	35 + 10 min each	

ocation: (G) = Generali Hall

(F) = Ford Hall

(S) = Sparkasse Forum

Tuesday, August 18: ROLE General Assembly

Friday, August 21: Workshops

- Story-Telling and Educational Games (STEG'09)
- Virtual Worlds for academic, organizational, and life-long learning (ViWo'09)
- Social Information Retrieval for Technology-Enhanced Learning (SIRTEL'09)
- Joining Educational Mathematics (JEM'09)

Local Sightseeing Tour

### **Keynote Talks**

#### Learning in Times of Abundance: The Snowflake Effect

Erik Duval, Dept. Computerwetenschappen, Katholieke Universiteit Leuven

Location: Generali Hall – August 19, 9.30 - 10.15



**Abstract:** In this keynote, Prof. Erik Duval will discuss how we are evolving towards a global open learning infrastructure with an abundance of learning resources. This is the result of more than 15 years of work on technical standards and interoperability. Abundance is certainly a better situation than the earlier scarcity of resources and creates many opportunities for innovation. However,

teachers and learners can be a bit overwhelmed by the large numbers and wide variety of resources and we need to help them to focus on what is relevant to them. The Snowflake Effect is our approach of dealing with this issue, based on massive hyper-personalization.

Erik Duval is a professor of computer science at the Katholieke Universiteit Leuven, Belgium. His research interests include: metadata, learning objects, a global learning infrastructure based on open standards and mass personalization ("The Snowflake Effect"). Prof. Duval teaches courses on Human-Computer Interaction, Multimedia and Problem Solving and Design. Erik serves as the president of the ARIADNE Foundation, chairs the IEEE LTSC working group on Learning Object Metadata and is a fellow of the AACE. He co-founded two spin-offs that apply research results for access to music and scientific output. See also http://erikduval.wordpress.com/ and http://www.cs.kuleuven.be/~erikd/

#### **Exploiting User Generated Content to Improve Search**

Wolfgang Nejdl, Dept. Computer Science, University of Hannover

Location: Generali Hall – August 20, 9.00 - 9.45



**Abstract:** More and more information is available on the Web, and the current search engines do a great job to make it accessible. Yet, optimizing for a large number of users, they usually provide good answers only to "most of us", and have to provide satisfying mechanisms to search for audiovisual content. In this talk I will present ongoing work at L3S addressing these challenges, done in

the context of several EU projects on PIM and web search. Regarding search for audiovisual content, I will focus on exploiting user generated information, and discuss what kinds of tags are used for different resources and how they can help for search. Collaborative tagging has become an increasingly popular means for sharing and organizing Web resources, leading to a huge amount of user generated metadata. These tags represent different aspects of the resources they describe and it is not obvious whether and how these tags or their subsets can be used for search. I will present an in-depth study of tagging behavior for different kinds of resources - Web pages, music, and images. The promising results provide insight into both the use of different kinds of tags for improving search and possible extensions of tagging systems to support the creation of potentially search-relevant tags.

Prof. Dr. Wolfgang Nejdl (born 1960) has been full professor of computer science at the University of Hannover since 1995. He received his M.Sc. (1984) and Ph.D. degree (1988) at TU of Vienna, was assistant professor in Vienna (1988 – 1992), and associate professor at RWTH Aachen (1992 – 1995). He worked as visiting researcher/professor at Xerox PARC, Stanford University, University of Illinois at Urbana-Champaign, EPFL Lausanne, and PUC Rio. He heads the Distributed Systems Institute/Knowledge Based Systems and the L3S Research Center. His research areas are search and information retrieval, semantic web, p2p information systems, technology-enhanced learning, databases and artificial intelligence. He published more than 200 scientific papers and has been program chair, program committee and editorial board member of numerous international conferences and journals, see also http://www.kbs.uni-hannover.de/~nejdl/

### **Invited Papers**

#### Web-based Learning – Yes We Can!

Ulrik Schroeder, RWTH Aachen, Germany

Location: Generali Hall – August 19, 17.45 - 18.15



**Abstract:** Web-based Learning has become a matter of fact at universities. We are now at the edge of new developments with Web 2.0 applications and social software is radically changing the way of how we communicate and share in social networks. Can we expect an analogous revolution for university education 2.0? I will give some arguments that I rather expect an incremental evolution

than a radical change. First, I take a look at current eLearning implementations and organizational frameworks and give an example from RWTH Aachen University. Against the background of cognitive theories the utilization of Web 2.0 applications are promising to strengthen 21st century learning. But methods and tools must be adapted to the context of institutional learning as well as the formal regulations must be adjusted vice versa.

Ulrik Schroeder has been professor of Computer Science at RWTH Aachen University since 2002. He heads the research group Computer-supported Learning and Didactics in Computer Science (http://eLearn.rwth-aachen.de/) as well as the CiL (Center for integrative teaching and learning Of RWTH Aachen University: http://www.cil.rwth-aachen.de/). His research includes assessment and intelligent feed back with a focus on learning processes, Web 2.0 applications and social software in education, mobile internet and learning, gender mainstreaming in education, Computer Science didactics. Prof. Schroeder teaches courses on eLearning, Web Technologies, Instructional Design and Computer Science Education.

#### On Social e-Learning

Won Kim, Sungkyunkwan University, Korea

Location: Generali Hall – August 20, 9.45 - 10.15



**Abstract:** Social Web sites include social networking sites and social media sites. They make it possible for people to share user-created contents online and to interact and stay connected with their online people networks. The social features of social Web sites, appropriately adapted, can help turn e-learning into social e-learning and make e-learning significantly more effective. In this

paper, we develop requirements for social e-learning systems. They include incorporating the many of the social features of social Web sites, accounting for all key stakeholders and learning subjects, and curbing various types of misuses by people. We also examine the capabilities of representative social e-learning Web sites that are available today.

Won Kim is currently a professor and university fellow with the School of Information and Communication Engineering in Sungkyunkwan University (SKKU) in Suwon, S. Korea. He is also a senior advisor with Xener Systems, Inc. in Seoul, S. Korea. He received a Ph.D. in computer science from the University of Illinois at Urbana-Champaign. He received a B.S. and M.S. from the Massachusetts Institute of Technology. He is best-known as one of the pioneers of object-oriented and objectrelational database technologies. He led the ORION object-oriented database systems project at MCC, Austin, Texas in the late 1980s. He founded UniSQL and created the world's first commercial object-relational database system in the early 1990s. On the side, he founded and served as Chair of ACM's SIGKDD data mining society, and as Editor-in-Chief of ACM's Transactions on Internet Technology journal. He also served as Chair of ACM's SIGMOD data management society, and as Editor-in-Chief of ACM's Transactions on Database Systems. He is an ACM Fellow, and received such awards as ACM's Distinguished Services Award, ACM SIGMOD Test of Time Research Award, VLDB Ten Year Best Paper Award, etc. His current research umbrella is social computing architecture, which includes such subjects as social Web sites, Internet search engine architecture, Web mining, cloud computing, networked embedded systems, and HCI usability.

### Personal Services: Debating the Wisdom of Personalisation

Helen Ashman, UniSA, Australia

Location: Generali Hall – August 20, 17.45 - 18.15



**Abstract:** Personalisation has been seen as the answer to the vast quantity of information now available digitally. Information is tailored to meet each user's apparent needs, whether making use of Webbased learning materials, purchasing from online sites, accessing entertainment products or any other potentially-personalisable facility. Yet before rushing headlong into personalising everything,

including online learning systems, we need to consider the threats posed by the capture of so much data about individuals, the implications of personalised information delivery, and whether the benefits of personalisation justify the costs. In this paper, we look at both the issues and benefits of personalisation, and consider how to steer our way to a safe and valuable use of personalisation.

Helen Ashman has worked in hypertext and Web research since 1992, starting with the Australian Defence Science and Technology Organisation, then spending a year in Southampton with Wendy Hall's group before doing a PhD with RMIT on dynamic hypertext. She then moved to the University of Nottingham, where she set up the Web Technologies Group and became Editor-in-Chief of the new ACM Transactions on the Web. She recently moved back to Australia and now leads the WebTech and Security Lab at the University of South Australia. She has recently guest-edited special issues on Distance Learning and Emerging Internet Technologies and Applications for e-Learning for IEEE Internet Computing. Personalisation has always been one of her interests, whether in the military context or educational, and at the same time so has security and privacy. While she believes in the promise of personalisation, she feels it needs to be experimentally validated, especially in the e-learning context, so that it can be proved to live up to its promise.

# ICWL 2009 Program – August 19

<b>Session 1</b> 10.45 - 13.00	Location: Generali - Full Papers Chair: Helen Ashman	Social Software and Web 2.0 for Technology Enhanced Learning
10.45 - 11.10	Klaus Wannemacher. Articles as Assignments – Modalities University Courses	and Experiences of Wikipedia Use in
11.10 - 11.35 ∑B_≺	Riina Vuorikari, Martin Sillaots, Silv Are tags from Mars and descriptors fr educational resource metadata	via Panzavolta and Rob Koper. rom Venus? A study on the ecology of
11.35 - 12.00	Felix Mödritscher and Fridolin Wild Sharing Good Practice through Mash	
12.00 - 12.25	Anh Vu Nguyen-Ngoc and Effie Lai Challenges for Blog Analysis and Pos	
12.25 - 12.50	Sibren Fetter, Adriana Berlanga an Enhancing the Social Capital of Learn Transient Communities Service	d Sloep Peter. ning Communities by Using an Ad Hoc
<b>Session 2</b> 10.45 - 13.00	Location: Ford - Full Papers Chair: Maria Grazia Ierardi	Mobile and Adaptive Learning
10.45 - 11.10	Ahmed Al-Hmouz, Jun Shen and Ju A Machine Learning based Framework	
11.10 - 11.35	Elvira Popescu.  Evaluating the Impact of Adaptation to Educational System	o Learning Styles in a Web-based
11.35 - 12.00	Fawaz Ghali and Alexandra Cristea Social Reference Model for Adaptive	
12.00 - 12.25	Anna Wingkvist and Morgan Ericss A Meta-model Describing the Develop	
12.25 - 12.50	Frederick W.B. Li, Rynson W.H. La A Three-Tier Profiling Framework for	
<b>Session 3</b> 14.00 - 16.15	Location: Generali - Full Papers Chair: Frederick W.B. Li	Pedagogical Issues
14.00 - 14.25	Benedikt Schmidt and Uwe Riss. Task Patterns as Means to Experience	ce Sharing
14.25 - 14.50	<b>Terje Väljataga.</b> If a student takes control: facilitator's	tasks and responsibilities
14.50 - 15.15 ∑ <u>B</u> ₹	Karen Stepanyan. Student Engagement with Peer Asses Design and Technologies	ssment: a Review of Pedagogical
15.15 - 15.40	Support Learner's Learning	nlatsis. Onality Traits into an Affective Model to
15.40 - 16.05	Elvira Popescu. Addressing Learning Style Criticism: Revisited	The Unified Learning Style Model

<b>Session 4</b> 14.00 - 16.15	Location: Ford - Full Papers Chair: Baltasar Fernández-Manjón	Learning Resource Deployment, Organization and Management
14.00 - 14.25	Thomas Osburg and Albena Todo Online Platform Support for Sustaine Engagement of Teachers in a Blende	
14.25 - 14.50	Kaili Wang and Philippe Trigano. Unit of Learning Model for LMS/LCM Elements	S Integrating Psycho-pedagogical
14.50 - 15.15	George Goguadze. Semantic Evaluation Services for We	eb-Based Exercises
15.15 - 15.40	Paola Forcheri, Maria Grazia leraro The pedagogical dimension of metac model	di, Serena Alvino and Luigi Sarti. data for learning resources: the POEM
15.40 - 16.05	Ioannis Kazanidis and Maya Satrat Efficient authoring of SCORM course case of ProPer SAT	tzemi eware adapted to user learning style: the
<b>Session 5</b> 16.45 - 17.45	Location: Generali - Short Papers Chair: Ulrik Schroeder	Design, Model and Framework of E-learning Systems 1
16.45 - 17.05	Chun-Ying Chen. Influence of Perceived Information O Mediated Communication	verload on Learning in Computer-
17.05 - 17.25	Stefanie Sieber and Andreas Henr Effectively Managing and Processing	
17.25 - 17.45	Fabrizio Boldini, Maria Rita Bracch Solomou and Christina Ioannou. The EUCLIDES (Enhancing the Use Development of Science studies) Pro Utilizing Problem-Based Learning	•
<b>Session 6</b> 16.45 - 17.45	Location: Ford - Short Papers Chair: Mart Laanpere	Educational Gaming and Social Web
16.45 - 17.05	Stefan Trausan-Matu, Vlad Posea, Using the Social Web to Supplement	
17.05 - 17.25	Ada Angeli Cariaga, Ma. Rowena S Andrae Salvador. Kinespell: Kinesthetic Learning Activ based Learning Environment	Solamo, Rommel Feria and Jay ity and Assessment in a Digital Game-
17.25 - 17.45		, Chun-Yi Shen, Timothy K. Shih and -Based Assessment System with Wii

# ICWL 2009 Program – August 20

<b>Session 7</b> 10.45 - 13.00	Location: Generali - Full Papers Chair: Heide Lukosch  Design, Model and Framework of E-learning Systems
10.45 - 11.10	Jean-Noel Colin, Tien-Dung Le and David Massart. A Federated Authorization Service for Bridging Learning Object Distribution Models
11.10 - 11.35	Daniela Borissova and Ivan Mustakerov.  A Framework of Multimedia E-learning Design for Engineering Training
11.35 - 12.00 ∑ <u>B</u> ≺	Susanne Neumann and Petra Oberhuemer. User Evaluation of a Graphical Modeling Tool for IMS Learning Design Yongwu Miao, Marcel Van der Klink, Jo Boon, Peter Sloep and Rob
12.00 - 12.25	Koper. Toward an Integrated Competence-based System Supporting Lifelong Learning and Employability: Concepts, Model, and Challenges
12.25 - 12.50	Colin Allison, Alan Miller, Iain Oliver and Thomas Sturgeon. Global Connections for Lasting Impressions: Experiential learning about TCP in the wild
<b>Session 8</b> 10.45 - 13.00	Location: Ford - Full Papers Chair: Elvira Popescu  Practice and Experience Sharing
10.45 - 11.10	Michael Derntl. Understanding and Facilitating Student Bloggers: Towards a Blogging Activity Model
11.10 - 11.35	Kiriakos Patriarcheas and Michalis Xenos. Asynchronous distance education forum - Brainstorming vs. Snowballing: a case study for teaching in programming didactics
11.35 - 12.00	Nikos Manouselis and Riina Vuorikari. What if annotations were reusable: a preliminary discussion
12.00 - 12.25	Amparo Marin de la Barcena, Alexander Zlotnik, Rubén San Segundo, Juan M Montero and Ricardo Cordoba. Strengthening Web based learning through software quality analysis
12.25 - 12.50	Wang Yonggu.  A Web-based System for Visualizing and Analyzing Interaction Structure in Online Collaborative Learning
<b>Session 9</b> 14.00 - 15.45	Location: Generali - Full Papers Chair: Frank Kappe  Educational Gaming and Simulation Environments
14.00 - 14.25	Wahju Agung Widjajanto, Michael Lund and Heidi Schelhowe. Enhancing the Ability of Creative Expression and Intercultural Understanding through Visual Story
14.25 - 14.50 ∑B ≺	Ángel del Blanco, Javier Torrente, Pablo Moreno-Ger and Baltasar Fernández-Manjón. Bridging the Gap: Adaptive Games and Student-Centered VLEs
14.50 - 15.15	Jing-Yao Tang, Jui-Hung Chen, David Tawei Ku, Timothy K. Shih, Louis R. Chao and Martin M. Weng. Constructing the 2D Adventure Game-Based Assessment System

15.15 - 15.40 ∑B₹	Cord Hockemeyer, Alexander Nuss Aboulafia, Dorothy Breen, George Applying a Web and Simulation-Base Assessment of Spinal Anaesthesia	Shorten and Dietrich Albert.
<b>Session 10</b> 14.00 - 15.45	Location: Ford - Full Papers Chair: Won Kim	Language Learning
14.00 - 14.25	Kwong-Hung Lai, Howard Leung a Automatic Content Creation for Game Similar Chinese Characters	
14.25 - 14.50	Yi Zhuang, Nan Jiang and Haiyang A Web-Based Search Engine for Chi	
14.50 - 15.15	Yiwei Cao, Ralf Klamma, Yan Gao, A Web 2.0 Personal Learning Environ	
15.15 - 15.40	Kerstin Borau, Carsten Ullrich, Jin Microblogging for Language Learning and Cultural Competence	jin Feng and Ruimin Shen. g: Using Twitter to Train Communicative
<b>Session 11</b> 16.15 - 17.45	Location: Generali - Short Papers Chair: Riina Vuorikari	Design, Model and Framework of E-learning Systems 2
16.15 - 16.35	Tzone I Wang, Ti Kai Chiu, Liang J Cheng Hsieh. An English Vocabulary Learning Syst Memory Cycle	
16.35 - 16.55	Ercan Öztemel and Elif Yavuz. Comparison of Learning Models to Be Measurement of E-Learning Systems	uild an Infrastructure for Performance
16.55 - 17.15	Tatiana Gavrilova, Vladimir Gorovo Learning Resources Organization usi	
17.15 - 17.35	Constanta N. Bodea and Maria Das A Parameterized Web-Based Testing	
<b>Session 12</b> 16.15 - 17.45	Location: Ford - Short Papers Chair: Philippos Pouyioutas	Practice and Experience Sharing
16.15 - 16.35	Karl Kurbel, Ivo Stankov and Rasts An Evaluation of the Impact of E-Lea Perception and Performance	rning Media Formats on Student
16.35 - 16.55	Pieter de Vries, Heide Lukosch and Far away yet close: the Learning Stra	
16.55 - 17.15	Mart Laanpere, Kai Pata and Vladir Evaluating pedagogy-driven design o	mir Tomberg.  IVA LMS with activity pattern analysis
17.15 - 17.35	Mohammad AL-SMADI, Christian G PASS: Peer-ASSessment Approach	

∑B Best paper nominees

# **Workshop Programs – August 21**

# **STEG'09**

Second Workshop on Story-Telling and Educational Games

Location: Generali Hall

	Location: Contrain riain
8.45 - 9.00	Opening and Welcome
9.00 - 9.25	Florian Mehm, Sabrina Radke and Stefan Goebel. 80Days: Adaptive Digital Storytelling for Digital Educational Games
9.25 - 9.50	Ioanna Christou, Nikolas Perdikaris, Panagiotis Tragazikis, Alexandros Douros, Electra Galani, Dimitris Gouscos and Michalis Meimaris.  "The Magic Potion" – An Adventure Game for Learning
9.50 - 10.15	Casper Harteveld, Stephan Lukosch and Rens Kortmann. Improving Serious Game Design with Collaborative Storytelling
10.15 - 10.45	Break
	Eeva Turtiainen, Seugnet Blignaut, Christo Els, Teemu H, Laine and
10.45 - 11.10	Erkki Sutinen. Story-based UFractions Mobile Game in South Africa: Contextualization Process and Multidimensional Playing Experiences
11.10 - 11.25	David Farrell, Patty Kostkova, Donna Lecky and Cliodna McNulty. Teaching Children Hygiene Using Problem Based Learning: The Story Telling Approach to Games Based Learning (Work-in-Progress)
11.25 - 11.40	Haroula Papadaki, Eleni Gadolou and Emmanuel Stefanakis. Collaborative GIS platforms for Storytelling - Case Study: Battleship Averof (Work-in-Progress)
11.40 - 12.05	Min Chen, Mizuki Miyashita, Beau Ufen, Bradley Bahls and Tyler Julian.  A Multimedia Scripting System for Endangered Language Learning
12.10 - 13.00	Brainstorming of the Gemstone proposal
13.00 - 14.00	Lunch
14.00 - 14.25	Helen Ashman, Wayne Gartner and Kirsten Wahlstrom. War games: the role of role-playing in assessment
14.25 - 14.50	Enrique López Mañas, Javier Torrente, Pablo Moreno-Ger and Baltasar Fernandez-Manjon. Re-Telling History: A Web-based Educational Videogame for Teaching History
14.50 - 15.15	Michael Kickmeier-Rust, Dietrich Albert and Elke Mattheiss. An Educational Guide to Planet Earth: Adaptation and Personalization in Immersive Educational Games
15.15 - 16.30	Wrap-up and Brainstorming

## ViWo'09

Workshop on Virtual Worlds for Academic, Organizational, and Life-long Learning Location: Seminar Room 5.30

10:45 - 11:00	Frank Kappe. Introduction
11:00 - 11:20	Kathryn R. Trinder, David C. Moffat.  Trial of Second Life™ as a teaching aid for the curriculum in Computing
11:20 - 11:40	Laura Fedeli. Avatar-assisted learning: Second Life and the new challenges of online tutoring
11:40 - 12:00	Fabio Abbattista, Fabio Calefato, Andrea De Lucia, Rita Francese, Filippo Lanubile, Ignazio Passero and Genoveffa Tortora. Virtual Worlds: do we really need the third dimension to support collaborative learning?
12:00 - 12:20	Joe Wàn and Mike Reddy. The Self Regulated Community of Learning within 3D Virtual Learning Environments
12:20 - 12:40	Francesca Bertacchini, Eleonora Bilotta, Eugenia Bossio, Pietro Pantano and Stefano Vena.  Learning Chaos in an Interactive Virtual Museum
12:40 - 13:00	Frank Kappe. Group Discussion

## SIRTEL'09

Workshop on Social Information Retrieval for Technology Enhanced Learning

Location: Seminar Room 5.31/5.32

9.00 - 9.15	Welcome and Introduction
9.00 - 9.13	
9.15 - 9.45	H. Drachsler. Peak review of TEL Chapter for "Handbook on Recommender Systems"
9.45 - 10.15	Discussion on SIRTEL challenges for 2020
10.15 - 10.45	Break
10.45 - 11.00	F. Abel. Learn Web2.0: Resource Sharing in Social Media
11.00 - 11.40	A. Carbonara. Collaborative and Semantic Information Retrieval for Technology- Enhanced Learning
11.40 - 12.20	R.Vuorikari. Self-organisation and social tagging in a multilingual educational context
12.20 - 13.00	B. Schmidt and W. Reinhardt. Task Patterns to support task-centric Social Software Engineering
13.00 - 14.00	Lunch
14.00 - 15.00	Possible "Pecha Kucha" session

# **JEM'09**

### Final Workshop on Joining Educational Mathematics

Location: Ford Hall

9:00 - 9:15	Opening
9:15 - 9:45	Olga Caprotti. Three years of JEM
9:45 - 10:15	Hans Cuypers, Jan Willem Knopper and Hans Sterk. MESS: the MathDox Exercise System
10:15 - 10:45	Break
10:45 - 11:15	Christine Müller and Michael Kohlhase. Semantic Technologies for Mathematical eLearning
11:15 - 11:30	Christoph Lange. Towards a Wiki for Interactive Educational Mathematics
11:30 - 11:45	María Antonia Huertas. E-learning of mathematics at the UOC in the JEM context
11:45 - 12:00	Antonio Costa.  Mathematics in UNED and JEM
12:00 - 12:30	Leendert van Gastel. Use the Web to close the Mathematics Gap
12:30 - 13:00	André Heck, Harm Houwing, John Val, Georgia Papageorgiou and Lilia Ekimova. Design and implementation of an e-class about continuous dynamical systems
13.00 - 14.00	Lunch
14.00 - 14:45	Mika Seppäla. JEM outlook closing remarks

### **Conference Venue**

ICWL 2009 is hosted at the lately established Super C Building beside the grand main building of RWTH Aachen University. The outstanding architecture design and the building intelligence empowered by advanced technologies makes Super C a new landmark of RWTH Aachen



University. The ICWL 2009 presentations are given in Ford Hall and Generali Hall on the floating roof, where visitors win the best view of the Aachen Cathedral. The ICWL 2009 workshops also take place in the seminar rooms on the 5<sup>th</sup> floor of Super C.

Address: Templergraben 57, 52056 Aachen

Phone: +49 241 80-90801

#### Locations

Keynote talks and invited paper talks: Generali Hall in Super C

• Parallel conference sessions: Generali Hall and Ford Hall in Super C

Workshops: Generali Hall, Ford Hall, seminar rooms on the 5<sup>th</sup> floor in Super C

Lunch: Sparkasse Forum in Super C basement

#### **Accessibility**

Super C is located very close to the city center of Aachen. It takes a 10 minutes' walk to the cathedral and market place and a 15 minutes' walk to the train station "Aachen West". It costs about 10 Euro to take a taxi from Aachen main station "Aachen Hbf". It can also be reached by bus line 13 (Bus Stop "Technische Hochschule") and bus lines 4, 7, 13, 33, 44, 47, 77, 147 (Bus Stop "Driescher Gässchen").

Aachen public transportation: http://www.avv.de/

Aachen taxi services – phone: +49 241 66666 or +49 241 58000

### **Social Events**

### Reception



The conference reception will be hosted for ICWL 2009 participants on Wednesday, August 19, at 19.30 in the Forum M of Mayersche Bookstore. Drinks, snacks and fruits will be served with live jazz music. Forum M is located on the roof floor of the largest bookstore of Aachen. On the roof terrace visitors receive a nice view of the cathedral, the city hall, and much other sightseeing in the heart of the old city Aachen.



- Time: August 19, 2009, 19.30 22.00
- Location: Forum M of Mayersche Bookstore
- Price: Free for all ICWL 2009 participants (40 Euro/accompanying person)
- Address: Buchkremerstraße 1-7, 52064 Aachen

#### Banquet



The conference banquet will be hosted for ICWL 2009 participants on Thursday August 20, at 19.30 in the ballroom of the Old Spa House (Altes Kurhaus) of Aachen.

Drinks and buffet will be served. Best Paper Award will be announced. The Old Spa House has hosted many grand events since the beginning of the 18th century. It had once one of the most modern ballrooms in Europe.



- Time: August 20, 2009, 19.30 23.00
- Location: Altes Kurhaus
- Price: Free for all ICWL 2009 participants (40 Euro/accompanying person)
- Address: Komphausbadstr. 19, 52062 Aachen

### **City Tour and Spa**

A guided city tour to the old city of Aachen will be given in groups on Friday, August

21, at 15.00. In order for us to organize the tour groups better, participants need to register for this tour at the registration desk. In addition, ICWL participants get a voucher of special rate (15% off) for Carolus Spa.



- Time: August 21, 2009, 15.00 16.30
- Location: Get-together in front of Super C
- Condition: Free for all ICWL 2009 participants, a registration is needed









### **Local Organization**

Information Systems (Informatik 5) RWTH Aachen University Germany

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ICWL'09 http://www.hkws.org/events/icwl2009/

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