

**The 5th International Conference on Wireless, Mobile and  
Ubiquitous Technologies in Education**



**Final Program**

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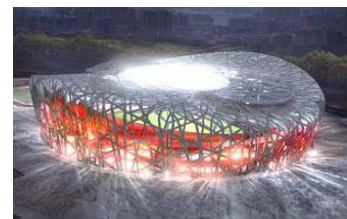
**23 - 26 March, 2008**

**Beijing, China**

**<http://www.wmute2008.org>**

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## WELCOME MESSAGE

IEEE Conference on Wireless, Mobile, and Ubiquitous Technologies in Education (WMUTE) is the fifth international meeting, extending the four previous WMTE/WMUTE workshops held in 2002 (Växjö, Sweden), 2004 (Taipei, Taiwan), 2005 (Tokushima, Japan) and 2006 (Athens, Greece) to become a conference for the first time.

This conference provides a forum for researchers and practitioners to interact with each other, share new results, and discuss innovative learning technologies, challenging research issues, and emerging directions for the field. On behalf of the program committee and the conference organizing committee, we are pleased to present the program for WMUTE2008. This year's program consists of four keynote presentations, twenty papers, and twenty-five poster presentations.

The Program Committee received 73 submissions. The acceptance rate for full papers was about 15%. These proceedings are composed of full and short papers, a collection of papers and abstracts from the keynote speeches, and poster papers presented at IEEE WMUTE2008. Each paper was reviewed by three members of the program committee and external reviewers.

We thank the members of the international program committee and the external reviewers for their insightful reviews of the submitted papers in a very short review period. We are especially grateful to the IEEE Learning Technology Task Force Chair, Professor Kinshuk, for his support throughout.

We also would like to acknowledge the sponsorship of the IEEE, as well as Beijing Normal University and WENQUXING Education Research Institute who have supported us in setting up this venue.

We believe that this conference will be interesting, stimulating, and thought-provoking for the participants, and play a key role in fostering a larger community of researchers and practitioners through the exchange of ideas and information related to wireless, mobile and ubiquitous technologies in education.

Claire O'Malley and Masanori Sugimoto  
Program Co-Chairs

IEEE Conference on Wireless, Mobile, and Ubiquitous Technologies in Education 2008

## CONFERENCE OVERVIEW

### Sunday 22<sup>nd</sup> March

Registration 09:00-18:00

### Sunday 23<sup>rd</sup> March

Pre-Conference Program 08:30-11:50

Lunch 12:00-13:50

Pre-Conference Program 14:00-16:20

### Monday 24<sup>th</sup> March

Registration 08:00-17:00

Opening Ceremony 09:00-09:30

Keynote Speech 1 09:30-10:30

Photograph Session 10:30-10:45

Coffee Break 10:45-11:00

Paper 1 11:00-12:00

30 Second Madness 1 12:00-12:07

Lunch 12:07-13:30

Poster 1 13:30-15:00

Coffee Break 15:00-15:30

Paper 2 15:30-17:10

### Tuesday 25<sup>th</sup> March

Registration 08:00-18:00

Keynote Speech 2 09:30-10:30

Coffee Break 10:30-11:00

Paper 3 11:00-12:20

Lunch 12:20-13:50

Keynote Speech 3 13:50-14:50

Paper 4 14:50-16:00

30 Second Madness 2 & 16:00-16:30

Coffee Break

Poster 2 16:30-18:00

Coffee Break 18:00-18:30

Banquet 18:30-20:30

### Wednesday 26<sup>th</sup> March

Registration 08:00-16:00

Keynote Speech 4 09:30-10:30

Coffee Break 10:30-11:00

Paper 5 11:00-12:40

Lunch 12:40-14:10

Paper 6 14:10-15:30

Closing Ceremony 15:30-16:00

## General Co-Chairs

Tak-Wai Chan, Central University  
Demetrios G. Sampson, University of Piraeus

## Program Co-Chairs

Claire O'Malley, University of Nottingham  
Masanori Sugimoto, University of Tokyo

## Committee Members

Mohamed Ally, Athabasca University  
Gerardo Ayala, Universidad de las Américas  
Chih-Yung Chang, Tamkang University  
Maiga Chang, Athabasca University  
Yam-San Chee, National Institute of Education  
Irene Y.L. Chen, Ching Yun University  
Weiqin Chen, University of Bergen  
Panayiotis Demestichas, University of Piraeus  
Guangzuo Cui, Beijing Normal University  
Ulrich Hoppe, University Duisburg-Essen  
Sherry Hsi, Exploratorium  
Gwo-Jen Hwang, University of Tainan  
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Qun Jin, Waseda University  
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Siu Cheung Kong, Hong Kong Institute of Education  
Lam-for Kwok, City University of Hong Kong  
Chen-Chung Liu, Central University  
Chee-Kit Looi, Nanyang Technological University  
Rose Luckin, Institute of Education  
Rory McGreal, Athabasca University  
Marcelo Milrad, Vaxjo University  
Jun Nakahara, University of Tokyo  
Hiroaki Ogata, Tokushima University  
Roy Pea, Stanford University  
Jeremy Roschelle, SRI International  
Danae Stanton Fraser, Bath University  
Mike Sharples, University of Nottingham  
Timothy K. Shih, Tamkang University  
Elliot Soloway, University of Michigan  
Marcus Specht, Open University of the Netherlands

Yao-Tin Sung, Taiwan Normal University  
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Deborah Tatar, Virginia Tech  
Qiong Wang, Peking University  
Earl Woodruff, University of Toronto  
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## ORGANIZING COMMITTEE

### Organizing Committee Chair

Ronghuai Huang, Beijing Normal University, Beijing

## SPONSOR

### WENQUXING Education Research Institute



**Chen-Chung Liu, Assistant Professor, Graduate Institute of Network Learning Technology, Central University in Taiwan**

Chen-Chung Liu has a BSc degree in electrical engineering, MSc and PhD degrees in computer science and information engineering from Central University in Taiwan. He is currently an assistant professor at the Graduate Institute of Network Learning Technology, Central University. He is leading the iLearn group (Interactive Technology and Learning) aiming to develop interactive technologies including digital toys/games, personal handhelds and peripheral environments to support various learning scenarios, particularly those relating to the use of social intelligence to augment individual learning and creativity.



Chen-Chung Liu is the recipient of 2006 Dr Wu Da-You Research Award in Taiwan.

**Title: Beyond the ownership of handheld devices: active learning with ubiquitous learning mind**

**Abstract:** Whether mobile and ubiquitous learning becomes a substantial learning scenario depends on how mobile and ubiquitous technologies facilitate new learning demands in the future. The ownership of devices and the mobility of personally-owned devices are not the only critical issues as computational power becomes universally available. The rapidly changing world creates new challenges for learners beyond learning existing knowledge. It requires learners to live and learn with an active learning mind that promotes personal autonomy, social collaboration and intelligence as well as epistemic pluralism in order to create innovation with the aid of technologies. Transformative pedagogies and environments are required to facilitate the cultivation of such a learning mind. Encouraging contribution, technology adoption, social intelligence and socially promotive collaboration become the critical issues when learners are augmented with distributed learning minds through mobile and ubiquitous technologies.

**Hiroaki Ogata, Associate Professor, University of Tokushima**

**Title: Computer Supported Ubiquitous Learning: Augmenting Learning Experiences in the Real World**

**Abstract:** This paper describes the design and the use of computer supported ubiquitous learning environments. First, this paper mentions context-aware language-learning support systems for learning vocabularies, mimicry and onomatopoeia, polite expressions, and conversational expressions by leveraging PDA, GPS, RFID tags and sensor networks. Second, it describes a web-based video repository to share and retrieve learning experiences. This system was used in the scenarios of computer hardware assembling and cooking. Finally, the paper is ended with the discussions and future works.



**Yvonne Rogers, Professor of Human-Computer Interaction, Computing Department, Open University**

**Title: On the Move: What Do We Learn When Multi-Switching?**

**Abstract:** Mobile devices have been heralded as the latest technology for facilitating learning. Their versatility enables us to use them in a diversity of settings, be it sitting in a classroom, eating in a café, walking around a museum, exploring a field site, or playing a game in the street. They can be used to augment ongoing physical activities, such as exploring, discovering and measuring, providing multiple opportunities for the integration of ideas and observations.



But what do we learn through this form of multi-switching; how effective is it to be constantly moving between different perspectives, representations and activities? A potential benefit of being able to make continuous connections between observations and inference is enhanced sense-making activities and understanding. However, a danger of constantly switching attention between different perspectives, representations and activities is to cause distraction and cognitive overload. How do we know when mobile learning is a good thing?

**H. Ulrich Hoppe, Professor at the Department of Computer Science and Applied Cognitive Science, University of Duisburg-Essen, Germany**

**Title: Mobile devices in broader technology-integrated learning scenarios - issues and challenges**

**Abstract:** To have a stronger impact on future learning, the use of mobile devices to support learning needs to be contextualised in broader, integrative educational scenarios. Taking into account the different profiles of different mobile and other devices (including embedded, fixed location devices such as big interactive displays or sensitive surfaces), it is important to define adequate distributions of functionality over these devices and to design and implement specific interoperability mechanisms.



In this context, “interoperability” includes basic technical interoperability, i.e. data exchange and continuous information flow, but it can and should be extended to include also “educational interoperability” in terms of the enabling of teaching/learning workflows and the support of re-usability of emerging learning objects. Here, mobile devices are a relevant facet of a much larger picture.

From an integration point of view, research on mobile learning should be more closely connected to other areas of learning and learning support methodologies such as CSCL. There are indications that it would also benefit from using intelligent technologies to develop improved contextualisation and awareness mechanisms.

**PRE-CONFERENCE PROGRAM**

**Sunday 23<sup>rd</sup> March [Lecture Room 3, Third Floor, Yingdong Conference Hall]**

8:30~8:50	<b>One-to-one Technology Enhanced Learning: An Opportunity for Global Research Collaboration</b>	<b>Prof. Tak-Wai Chan</b>	<b>Chair: Prof. Kuo-en Chang</b>
8:50~9:30	<b>Panel: The learning view of one to one in Taiwan</b>		
9:30~9:50	<b>Learning Revolution in One-to-one Environment</b>	<b>Prof. Zhiting Zhu</b>	
9:50~10:10	<b>Introduction to One-to-one Learning Plan by Intel Company</b>	<b>Tao Jiang</b>	
10:10~10:30	<b>Tea Break [Third Floor, Yingdong Conference Hall]</b>		
10:30~10:50	<b>Semantic Mode of Instructional Strategy and Dynamic Mergence of Learning Resources in Mobile Learning</b>	<b>Prof. Guangzuo Cui</b>	<b>Chair: Prof. Zhiting Zhu</b>
10:50~11:10	<b>Mobile Learning Environment of Sensor Technology – Talking the Application in Nature Science at Primary School as an Example</b>	<b>Prof. Gwo-Jen Hwang</b>	
11:10~11:30	<b>Research into the Application of Pocket Devices in Subject Instructions</b>	<b>Prof. Shengquan Yu</b>	
11:30~11:50	<b>Display of Mobile-learning Plan by Noah Tech Company</b>	<b>Zhishang Zhou</b>	
12:00~13:50	<b>Lunch [Buyanfang Restaurant, Eighth Floor, Jingshi Building]</b>		
14:00~14:20	<b>The Future Development of e-Learning Research</b>	<b>Prof. Kuo-en Chang</b>	<b>Chair: Prof. Shengquan Yu</b>
14:20~14:40	<b>Introduction to One-to-one Learning Plan by AClass Tech Company</b>	<b>Jinsong Ma</b>	
14:40~15:00	<b>Latest Development of Mobile Learning in Hongkong</b>	<b>Prof. Shaoyang Jiang</b>	
15:00~15:20	<b>Golden Global View Company and the Mobile Learning Service</b>	<b>Tieying MA</b>	
15:20~15:40	<b>Tea Break [Third Floor, Yingdong Conference Hall]</b>		
15:40~16:20	<b>Interaction &amp; Discussion: Research into the Problems in Mobile Learning (Research groups report research plan, experts give comments and then discuss the research plan.)</b>	<b>Jie Zhou</b>	<b>Chair: Prof. Tak-Wai Chan</b>

## PROGRAM OVERVIEW FOR MAIN CONFERENCE

### Monday 24<sup>th</sup> March

9:00-9:30	<b>Opening Ceremony</b> [Lecture Hall, Second Floor, Yingdong Conference Hall]
9:30-10:30	<b>Keynote Speech 1</b> [Lecture Hall, Second Floor, Yingdong Conference Hall]
10:30-10:45	<b>Photograph Session [In front of Yingdong Conference Hall]</b>
10:45-11:00	<b>Coffee Break</b>
11:00-12:00	<b>Paper 1</b> [Lecture Hall, Second Floor, Yingdong Conference Hall]
12:00-12:07	<b>30 second madness 1</b>
12:07-13:30	<b>Lunch</b>
13:30-15:00	<b>Poster session 1</b> [Meeting Room, Third Floor, Yingdong Conference Hall]
15:00-15:30	<b>Coffee Break</b>
15:30-17:10	<b>Paper 2</b> [Lecture Room3, Third Floor, Yingdong Conference Hall]

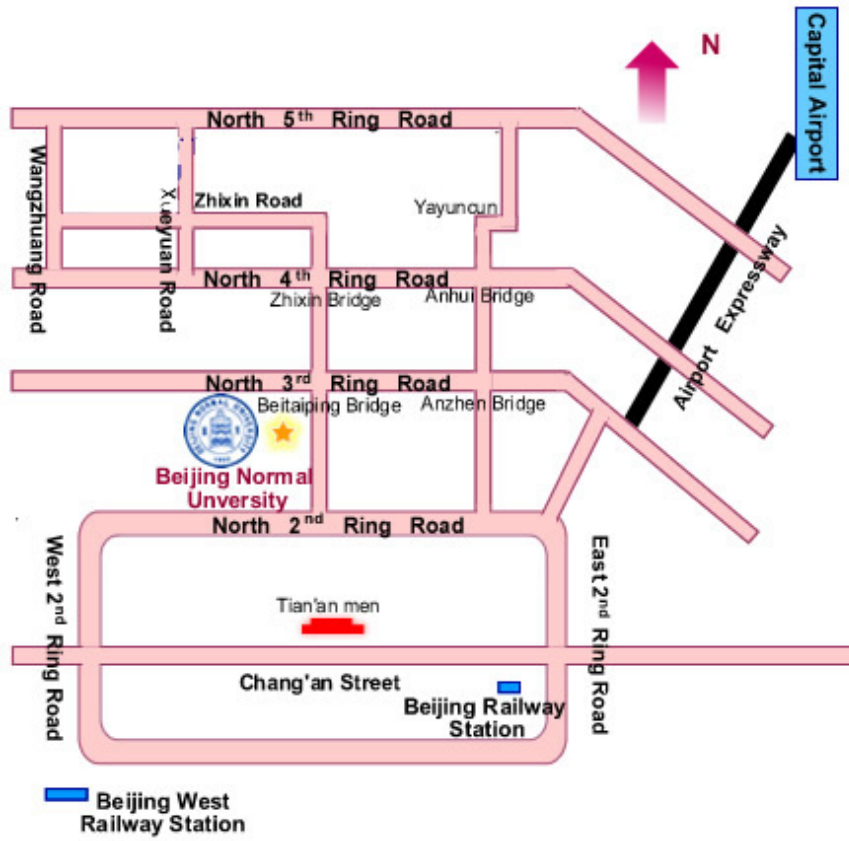
### Tuesday 25<sup>th</sup> March

09:30-10:30	<b>Keynote Speech 2</b> [Lecture Room3, Third Floor, Yingdong Conference Hall]
10:30-11:00	<b>Coffee Break</b>
11:00-12:20	<b>Paper 3</b> [Lecture Room3, Third Floor, Yingdong Conference Hall]
12:20-13:50	<b>Lunch</b>
13:50-14:50	<b>Keynote Speech 3</b> [Lecture Room3, Third Floor, Yingdong Conference Hall]
14:50-16:00	<b>Paper 4</b> [Lecture Room3, Third Floor, Yingdong Conference Hall]
16:00-16:30	<b>30 second madness 2 &amp; Coffee Break</b>
16:30-18:00	<b>Poster session 2</b> [Meeting Room, Third Floor, Yingdong Conference Hall]
18:00-18:30	<b>Coffee Break</b>
18:30-20:30	<b>Banquet</b> [Jinseloulan Restaurant]

**Wednesday 26<sup>th</sup> March**

09:30-10:30	<b>Keynote Speech 4</b> <b>[Lecture Room3, Third Floor, Yingdong Conference Hall]</b>
10:30-11:00	<b>Coffee Break</b>
11:00-12:40	<b>Paper 5</b> <b>[Lecture Room3, Third Floor, Yingdong Conference Hall]</b>
12:40-14:10	<b>Lunch</b>
14:10-15:30	<b>Paper 6</b> <b>[Lecture Hall, Second Floor, Yingdong Conference Hall]</b>
15:30-16:00	<b>Closing Ceremony [Lecture Hall, Second Floor, Yingdong Conference Hall]</b>





<b>TECHNICAL PROGRAM</b>		
<b>Monday 24<sup>th</sup> March</b>		
<b>Opening Ceremony</b>	<b>09:00-09:30</b>	<b>Chair:</b> <b>[Lecture Hall, Second Floor, Yingdong Conference Hall]</b>
<b>Keynote speech 1: Ulrich Hoppe Mobile devices in broader technology-integrated learning scenarios - issues and challenges</b>	<b>09:30-10:30</b>	<b>Chair: Marchel Milrad</b> <b>[Lecture Hall, Second Floor, Yingdong Conference Hall]</b>
<b>Photograph Session</b>	<b>10:30-10:45</b>	<b>[In front of Yingdong Conference Hall]</b>
<b>Coffee Break</b>	<b>10:45-11:00</b>	<b>[Second Floor, Yingdong Conference Hall]</b>
<b>Paper 1: Games and Sports</b>	<b>11:00-12:00</b>	<b>Chair: Zhu Zhiting</b> <b>[Lecture Hall, Second Floor, Yingdong Conference Hall]</b>
My Sports Pulse: Increasing student interest in STEM disciplines through sports themes, games and mobile technologies [Full Paper]	Dr. David Metcalf, Dr. Marcelo Milrad, Dr. Dennis Cheek, Sara Raasch, Angela Hamilton	
Combining Physical Activities and Mobile Games to Promote Novel Learning Practices [Full Paper]	Daniel Spikol, Marcelo Milrad	
<b>30 second madness 1</b>	<b>12:00-12:07</b>	
<b>Lunch 12:07--13:30 [Buyanfang Restaurant, Eighth Floor, Jingshi Building]</b>		
<b>Poster Session 1</b>	<b>13:30-15:00</b>	<b>Chair: Hiroaki Ogata</b> <b>[Meeting Room, Third Floor, Yingdong Conference Hall]</b>
<b>Coffee Break</b>	<b>15:00-15:30</b>	<b>[Third Floor, Yingdong Conference Hall]</b>
<b>Paper 2: Language Learning</b>	<b>15:30-17:10</b>	<b>Chair: Gerardo Ayala</b> <b>[Lecture Room3, Third Floor, Yingdong Conference Hall]</b>
Tablet PC to Support Collaborative Learning: An Empirical Study of English Vocabulary Learning [Full Paper]	Chiu-Pin Lin, Kuo-Pin Liu, Jitti Niramitranon	
PALLAS: Personalised Language Learning on Mobile Devices [Full Paper]	Sobah Abbas Petersen, Jan-Kristian Markiewicz	
Research on the Communicative Mobile English Learning Model [Short Paper]	Liu Jun, Yu Shengquan, Ran Min	
Use of Mobile Phones in Language Learning: Developing Effective Instructional Materials [Short Paper]	Murat Saran, Kursat Cagiltay, Golge Seferoglu	

<b>Tuesday 25<sup>th</sup> March</b>		
<b>Keynote speech 2: Hiroaki Ogata Computer Supported Ubiquitous Learning: Augmenting Learning Experiences in the Real World</b>	<b>9:30-10:30</b>	<b>Chair: Tak-Wai Chan [Lecture Room3, Third Floor, Yingdong Conference Hall]</b>
<b>Coffee Break</b>	<b>10:30-11:00</b>	<b>[Third Floor, Yingdong Conference Hall]</b>
<b>Paper 3: Ubiquitous Learning (1)</b>	<b>11:00-12:20</b>	<b>Chair: Yanyan Li [Lecture Room3, Third Floor, Yingdong Conference Hall]</b>
Context-Aware Writing in Ubiquitous Learning Environments [Full Paper]	Tzung-Shi Chen, Cheng-Sian Chang, Jeng-Shian Lin, and Hui-Ling Yu	
Tools for Students Doing Mobile Fieldwork [Full Paper]	Mattias Rost, Lars Erik Holmquist	
Conducting Situated Learning in a Context-Aware Ubiquitous Learning Environment [Short Paper]	Ting-Ting Wu, Tzu-Chi Yang, Gwo-Jen Hwang, Hui-Chun Chu	
<b>Lunch 12:20--13:50 [Buyanfeng Restaurant, Eighth Floor, Jingshi Building]</b>		
<b>Keynote speech 3: Yvonne Rogers On The Move: What Do We Learn When Multi-Switching?</b>	<b>13:50-14:50</b>	<b>Chair: Claire O'Malley [Lecture Room3, Third Floor, Yingdong Conference Hall]</b>
<b>Paper 4: Ubiquitous Learning (2)</b>	<b>14:50-16:00</b>	<b>Chair: Cui Guangzuo [Lecture Room3, Third Floor, Yingdong Conference Hall]</b>
A Decision Tree Approach to Conducting Dynamic Assessment in a Context-Aware Ubiquitous Learning Environment [Full Paper]	Shu-Hsien Huang, Ting-Ting Wu, Hui-Chun Chu and Gwo-Jen Hwang	
Identifying Personalized Context-aware Knowledge Structure for Individual User in Ubiquitous Learning Environment [Short Paper]	Stis Wu, Alex Chang, Maiga Chang, Tzu-Chien Liu, Jia-Sheng Heh	
Bringing School Science to Life; Personalization, Contextualization and Reflection of Self-Collected Data [Short Paper]	Dawn Woodgate, Danae Stanton Fraser, Mark Paxton, David Crellin, Adrian Woolard, Teresa Dillon	
<b>30 second madness 2 &amp; Break</b>	<b>16:00-16:30</b>	
<b>Poster session 2</b>	<b>16:30-18:00</b>	<b>Chair: Chen-Chung Liu [Meeting Room, Third Floor, Yingdong Conference Hall]</b>
<b>Coffee Break</b>	<b>18:00-18:30</b>	<b>[Third Floor, Yingdong Conference Hall]</b>
<b>Banquet</b>	<b>18:30-20:30</b>	<b>Jinseloulan Restaurant</b>

<b>Wednesday 26<sup>th</sup> March</b>		
<b>Keynote Speech 4: Chen-Chung Liu Beyond the ownership of handheld devices: active learning with ubiquitous learning minds</b>	<b>9:30--10:30</b>	<b>Chair: Demetrios Sampson [Lecture Room3, Third Floor, Yingdong Conference Hall]</b>
<b>Coffee Break</b>	<b>10:30-11:00</b>	<b>[Third Floor, Yingdong Conference Hall]</b>
<b>Paper 5: Interacting with Mobile Devices</b>	<b>11:00-12:40</b>	<b>Chair: Gwo-Jen Hwang [Lecture Room3, Third Floor, Yingdong Conference Hall]</b>
Evaluating the effects of mobile technology on an outdoor experiential learning [Full Paper]	Fei Ching Chen, Chih Hung Lai, Jie Chi Yang, Jing San Liang, Tak-Wai Chan	
Supporting rich interaction in the classroom with mobile devices [Full Paper]	Gustavo Zurita <sup>1</sup> , Nelson Baloian <sup>2</sup> , Felipe Baytelman	
Research on the Application of One-to-One Learning in Chinese Classical Poem Education [Short Paper]	Min Ran, Shengquan Yu, Jun Liu	
Enhancing Mobile Learning Delivery through Exploration of the Learner Experience [Short Paper]	Dr. Mohamed Ally, Karen Stauffer	
<b>Lunch 12:40--14:10 [Buyanfang Restaurant, Eighth floor, Jingshi Building]</b>		
<b>Paper 6: Collaborative Learning and Information Retrieval</b>	<b>14:10--15:30</b>	<b>Chair: Rory McGreal [Lecture Hall, Second Floor, Yingdong Conference Hall]</b>
Development of a Knowledge Management System Integrated with Local Communication Channels and Knowledge Management Initiatives for Kenyan Rural Farming Communities [Full Paper]	Dewi Wirastuti, Rose Luckin, Ray E. Sheriff, Kevin Walker, Josh Underwood, Lynne Dunckley	
Folksonomy-based Indexing for Location-aware Retrieval of Learning Contents [Full Paper]	Wen-Chung Shih, Shian-Shyong Tseng	
Rescue Knowledge M-learning System by 3G mobile Phones [Short Paper]	Shu-Chen Cheng, Wei-Zhi Tsai, Yun-Zhong Chen	
Towards Computational Models for Mobile Learning Objects [Short Paper]	Gerardo Ayala, Sergio Castillo	
<b>Closing Session</b>	<b>15:30-16:00</b>	<b>[Lecture Hall, Second Floor, Yingdong Conference Hall]</b>

- 1 COLLAGE - The Carnuntum Scenario  
*Mag. Manfred Lohr, Dr. Elisabeth Wallinger*
- 2 A Comprehensive Information based Variable-size Model for Intelligent Tutoring Systems  
*Xing Jin*
- 3 Collaborative Learning in a Mobile Technology Supported Environment: A Case Study on Analyzing the Interactions  
*Siu Cheung, KONG*
- 4 A Mobile-Device-Supported Brain-Friendly Reading System  
*Yu-Ju Lan, Yao-Ting Sung, Kuo-En Chang*
- 5 The Design of an Ubiquitous Learning System with Research Problem-based Learning (RPBL) Model for Qualitative Studies  
*Ju-Ling Shih*
- 6 RFID-based Ubiquitous Learning Environment for School Student  
*Jiangtao Yin, Xudong Yang*
- 7 Development of a Long-Distance-Controlled Robot System for Engineering Education  
*Akiyuki Minamide, Kazuya Takemata, Nobuyuki Naoe, Hirofumi Yamada, Pee Suat Hoon*
- 8 A framework supporting user-specific services in RFID systems  
*Kozo Mizutani, Masatake Nagai, Masayuki Arai and Takashi Unagami*
- 9 An Activity-Oriented Design Framework for Mobile Learning Experience  
*Huanglingzi Liu, Ronghuai Huang, Jyri Salomaa, Ding Ma*
- 10 Enabling Interoperable Mobile Learning: Evaluation results from the use of SMILE PDA Learning Design Player  
*Demetrios Sampson, Panayiotis Zervas*
- 11 The emergence of mobile devices influencing learning from the viewpoint of convergences  
*Susanna Mann*
- 12 Survey Research on Mobile Phone Market for Mobile-Learning in Japan  
*Yoshiko GODA, Yuichi KOGURE, Yukinari SHIMOYAMA, Midori KIMURA, Hiroyuki OBARI*
- 13 Teacher Monitoring System in One-to-One Self-paced Learning Classroom  
*Oskar Y.M. Ku, Owen W.S. Huang, Tak-Wai Chan*

POSTER 2 16:30-18:00 Tuesday 25<sup>th</sup> March  
Meeting Room, Third Floor, Yingdong Conference Hall

- 1 Innovation of Future Education in Taiwan :Enjoy Learning with Mobile Learning Technology  
*Chiao-Yu Chang, Chiu-Pin Lin, Yi-Chen Lin*
- 2 A system perspective to establish a mobile collaborative learning environment (MCLE) - A preliminary study of Empirical Practice  
*Chiu-Pin Lin*  
The Game-based Constructive Learning Environment to Increase English Vocabulary Acquisition: Implementing a Wireless Crossword Fan-Tan Game (WiCFG) as an example
- 3 Game-based Learning Environment via Cooperative-competitive Learning Module on Handheld Devices to Increase English Vocabulary Acquisition  
*Chiu-Pin Lin, Shelley Shwu-Ching Young, Hui-Chun Hung*
- 4 Designing an Online Virtual World for Learning and Training  
*Dennis Cheek, Henry Kelly*
- 5 Using the RFIDs to Construct the Ubiquitous Self-Learning Environment for Understanding the Plants in the Schoolyard  
*Jenq-Muh Hsu, Yen-Shou Lai, Pao-Ta Yu*
- 6 Analysis on the Prospects of Parent-Adolescent Communication Served by Mobile Technology  
*Shenggang Yang, Qian Li, Xiaochen Wang, Yushun Li, Ronghuai Huang*
- 7 Designing a Groupware with Handheld Devices for Learning Mathematics  
*Shu-Yuan Tao, Kuang-Wen Ho, Chen-Wei Chung, Baw-Jhiune Liu, Chen-Chung Liu*
- 8 A SWOT Analysis of m-Learning Diffusion in China and Taiwan  
*Wei-Mann Lee, Yung-Sheng Chang*
- 9 Content Development for CPR over Handheld Devices  
*Chiu-Pin Lin, Meei-Hwey Lee, Kuo-Pin Liu*
- 10 Collaborative-inquiry learning in the environment. Design experiment with distributed face-to-face and mobile scaffolds  
*Jari Laru, Sanna Ja"rvela"*
- 11 Using web2.0 software and mobile devices for creating shared understanding among virtual learning communities  
*Jari Laru, Sanna Ja"rvela"*
- 12 Dog Detective -- An experience of game-based ubiquitous learning in elementary school science experiment class  
*Sheng-Hui Hsu, Po-Han Wu, Yueh-Min Huang*