



## The 9th Workshop of Knowledge Management & E-Learning (Keynote Seminar Series)

- *Preparing Creative and Critical Thinkers in The Digital Age*

- by The University of Hong Kong and Beijing Normal University

Chair: Dr. Maggie M. Wang and Prof. Shengquan Yu

### 1. Computer-Based Learning Environments for Deeper Learning in Problem Solving Contexts

**Dr. Minhong (Maggie) Wang**

Associate Professor, Director of the KM&EL Lab  
Faculty of Education, The University of Hong Kong  
Visiting Research Professor, Beijing Advanced Innovation Center for Future Education, Beijing Normal University

June 9 (Fri), 2017, 2:00-4:00pm  
Room 208, Yanbo Building, Beijing Normal University

**Abstract:** Learning through problem solving has been widely promoted in educational practice, and more recently in computer-based learning environments. Despite the support of technology, effective learning through problem solving is difficult to realize since learning in such contexts often involves complex processes. Many students tend to engage in surface experience rather than meaningful learning by developing in-depth understanding of practical experience, relating new ideas with prior knowledge, converging knowledge by resolving conflicts, and integrating discrete pieces of knowledge into a coherent whole. The speaker will share the research and development on how deeper learning in problem solving contexts can be empowered by effective design of computer-based learning environments, and by appropriate analysis of learning in such environments. The talk will be linked to two research workshops/symposiums on deeper learning in technology-enabled learning environment led by the speaker at the 2016 International Conference of the Learning Sciences (ICLS) and the 2017 Annual Meeting of the American Educational Research Association (AERA) – see details at <http://kme-lab.org/website/AERA.htm>.

**About the speaker:** Dr. Minhong (Maggie) Wang is an Associate Professor with the Faculty of Education at the University of Hong Kong. She established the Laboratory of Knowledge Management and e-Learning in 2009, and has been its director since then. Her areas of expertise include e-learning design and analysis, problem solving and scaffolding, visualization-based learning environment, STEM education, and medical education. She was a visiting scholar at Harvard Graduate School of Education, University of Cambridge, and MIT Sloan School of Management. She holds a Visiting Research Professor position at the Beijing Advanced Innovation Center for Future Education, Beijing Normal University. She is the Editor-in-Chief of Knowledge Management & E-Learning (Scopus indexed), and Associate Editor of Information & Management (5-Year Impact Factor: 3.175). Her research has been supported by the General Research Fund, the Research Grants Council of Hong Kong. More details can be found on <http://web3.edu.hku.hk/magwang/>.

### 2. Fostering Critical Thinking Through Online Collaboration: Building on Past Success and Facing Future Challenges

**Prof. Sharon J. Derry (APA Fellow)**

Thomas James Distinguished Professor, School of Education, University of North Carolina at Chapel Hill, USA

June 14 (Wed), 2017, 2:00-4:00pm  
Room 208, Yanbo Building, Beijing Normal University

**Abstract:** For many years I have taught and conducted research in online learning environments at major universities. I currently offer an online class (Human Abilities in Learning, aka HAL Online) in which education majors study conceptual material about the science of learning, then deepen their understanding by using concepts in authentic, mentored collaborative activities that take place asynchronously online. The HAL Online model, which has evolved through research over many iterations, accords well with current collaborative learning theory and provides a successful scalable model for online professional instruction. In this talk I will describe the model and report research demonstrating its effectiveness and providing insights into underlying learning mechanisms. However, this model requires continuous online monitoring and assessment of collaborative process, which is resource intensive. Its scalability requires developing algorithms to support large collaborative courses with appropriate analytics and automated forms of assessment. I will examine some of these major assessment challenges.

**About the speaker:** Sharon Derry is the Thomas James Distinguished Professor in the School of Education at the University of North Carolina at Chapel Hill. She received her PhD in Educational Psychology from the University of Illinois with

specialties in both cognition and instruction and quantitative/evaluative methods. Her research focuses on design and study of innovative learning environments in which students learn through experience. Her numerous funded projects and publications represent a career interest in promoting innovation and theory at the intersection of learning science and technology. Derry's publications appear in the American Educational Research Journal, Journal of Educational Psychology, Review of Educational Research, Educational Psychologist, and The Journal of the Learning Sciences, and she has edited books on topics related to technology in education and interdisciplinary collaboration in research.

### 3. Rethinking the Internet in Higher Education: Back to the Basics

**Prof. Cher Ping Lim**

Chair Professor of Learning Technologies and Innovation,  
Department of Curriculum and Instruction, Faculty of Education and Human Development, The Education University of Hong Kong

June 15 (Thu), 2017, 2:00-4:00pm  
Room 208, Yanbo Building, Beijing Normal University

**Abstract:** Higher education institutions all over the world are faced with the inter-related challenges of education equity, quality and efficiency. Research studies have shown how the Internet provides opportunities to address these challenges. However, there are sustainability and scalability issues for many of these studies and these Internet-enabled practices have just been observed among a few courses in an institution. This keynote address seeks for a rethinking of the Internet in higher education but going back to the basics of (1) alignment of learning outcomes (including 21st century competencies), (2) design of assessment tasks, (3) establishment of partnerships and collaborations, and (4) promotion of and support for excellence in teaching and scholarship of teaching.

**About the speaker:** LIM Cher Ping is a Chair Professor of Learning Technologies and Innovation at the Education University of Hong Kong and the Editor-in-Chief of the Internet and Higher Education. Over the last two decades, he has been able to engage major stakeholders of higher education at the institutional, national and international levels. Organisations including UNESCO, Microsoft, Asian Development Bank, World Bank, Sampoerna Foundation, and government agencies have become his partners for many of the education research and development projects that he has led.

### 4. Higher Order Thinking Skills, Technology and Social Interaction

**Dr. Li Li**

Senior Lecturer, Graduate School of Education, University of Exeter, UK

June 19 (Mon), 2017, 2:00-4:00pm  
Room 208, Yanbo Building, Beijing Normal University

**Abstract:** Teaching thinking is important for learning and social practice to develop global citizens with creativity and innovative capacity (MacDonald, 2005). Policy reports from around the world stress that education for higher level skills, such as problem-solving, creativity and learning to learn, is crucial for future economic growth (e.g., World Bank, 2011), and equally critical thinking, resilience, tolerance and reasonableness are all also essential to personal and collective well-being in an increasingly globalised world (OECD, 2014). In educational research, the development of students' thinking skills has been strongly recommended by many scholars and educators (e.g., Avargil et al. 2012; Wegerif, Li and Kaufman, 2015). At a policy level, there is a trend in including thinking skills in curricula. However, critical and creative thinking is still a myth to many educators and teachers. In this talk, I will be exploring how higher order thinking skills are developed/facilitated by technological environments and social interaction.

**About the speaker:** Li Li (PhD, MPhil, PCAP, BA) is Senior Lecturer at the Graduate School of Education in the University of Exeter. She conducts theoretical and empirical research on a range of topics but is particularly interested in teacher cognition and language, thinking skills, interaction and technology. She has published widely in these topics, with about 40 scholarly papers, 4 books, 2 special issues, and 1 edited book. In addition, she is a core member of THINK group at Exeter. She guest edited Thinking Skills and Creativity and a joint project with colleagues in ECNU on Millennium Learners. She also co-edited Handbook for Researching in Teaching Thinking Skills (with Rupert Wegerif and James Kaufman, 2015 by Routledge) and is currently working on a book series on thinking skills. She is also on editorial board of Thinking Skills and Creativity, and Classroom Discourse. Li Li has successfully supervised 14 doctoral research projects in different contexts and currently acting as the first supervisor for 15 doctoral students and second supervisor for 1 project.

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KM&EL Lab (<http://www.kme-lab.org/website>)

All are welcome!