

Global Chinese Conference on Computers in Education (GCCCE) 2010

Tutorial Proposal

1. Tutorial title:

Inquiry-based Learning in a Virtual Farm Game Environment

2. Presenter name(s) & contact information (email, telephone).

Lee Ho-Man, Jimmy (jlee@cse.cuhk.edu.hk, 852-2609-8426)

3. Tutorial format: Hands-on and seminar (3 hours)

4. A brief tutorial outline for website publication (About 200 words)

The present tutorial aims to introduce how to use a virtual game environment called Farmtasia 2 (<http://www.farmtasia.com>) to develop students' inquiry skills. Farmtasia 2 is a Massively Multiplayer Online Game (MMOG) with three components, cultivation, horticulture and pasturage. In the game, each student acts as a farm manager who has to run a farmland individually. In order to win the game, students have to formulate various investment and operational strategies to output both high quality and quantity farm products to the market in order to make profit and to earn high reputation. Since the whole simulation environment in Farmtasia 2 was created on the basis of real data, by making decisions in managing their own farms, students actually are gaining knowledge and skills to deal with similar situations in the real world.

Besides helping students gain subject knowledge, the system can be used to train students' inquiry skills. In the year 2010, we have designed a set of activities for the secondary school students, and the project is still going on.

In this tutorial, the design rationale and the different features of Farmtasia 2 will be first introduced. Participants will then have the opportunities to trial-use the game. The tutorial will be ended by a discussion on the pedagogy associated with Farmtasia 2 and the experiences gained from schools in Hong Kong.

5. Intended audience: Schools teachers, master or Ph.D. students, and/or Researchers. (Maximum number of participants: 30).

6. Prerequisites: No.

7. Attendee Requirements: We will work in a computer-lab. Handouts will be provided. No need to bring anything.

8. Presentation language: (English is the language, but the presenters are also fluent in Chinese)

9. Presenter Requirements: Yes, a computer-lab with permission to install some free software tools. Standard equipment 1024x768 projector is needed; we will bring our own laptop for presentation purpose.

10. Presenter bio(s) (one paragraph, about 200 words).

The presenter, **Professor Lee Ho-Man, Jimmy** B.Math., M.Math. (Waterloo), Ph.D. (Victoria) Associate Director, Centre for the Advancement of IT in Education, The Chinese University of Hong Kong

Professor, Department of Computer Science and Engineering, The Chinese University of Hong Kong

Professor Lee read both his BMath (Hons) degree and MMath degree from the University of Waterloo in 1987 and 1988, respectively, and his PhD from the University of Victoria in 1992. Immediately upon graduation, he joined The Chinese University of Hong Kong. His research focuses on the theory and practice of constraint satisfaction and optimization with applications in scheduling, resource allocation, and combinatorial problems. In recent years, Professor Lee has also been conducting research on novel Web-based learning platforms and the accompanying pedagogies, particularly in the development of educational games. He is currently the Associate Director (Research and Development) of the Centre for the Advancement of Information Technology in Education under the Hong Kong Institute of Educational Research, CUHK. Professor Lee has 100 refereed technical publications in international journals and conferences, and has obtained \$9 million in competitive research funding. He is on the editorial boards of the Journal of Discrete Algorithms and the Constraint Programming Newsletter. Professor Lee is active in extramural educational activities. He has taught for the Programs for the Gifted and Talented, and was the Chief Examiner of Paper II of the HK A-Level Computer Studies subject from 1995 to 2001. Inspired by his many former good teachers from elementary school to universities, Jimmy's passion for teaching garnered him the Vice-Chancellor's Exemplary Teaching Award in 2005, and the Faculty of Engineering Exemplary Teaching Award in 1999, 2000, 2001, and 2003.

11. Additional notes for reviewers: N/A