













K. C. WONG EDUCATION FUNNDATION

## CALL FOR PARTICIPATION

The 1st International Conference on Web-based Learning (ICWL 2002) Organized by the Hong Kong Web Society

# August 17-19, 2002 Kowloon Shangri-La Hotel, Hong Kong

Hosted by: The 28th International Conference on Very Large Data Bases (VLDB '2002)

City University of Hong Kong In-Cooperation with:

Hong Kong Polytechnic University

Sponsored by: Lingnan University

ACM Hong Kong Chapter

**IEEE Hong Kong Section Computer Chapter** Hong Kong Pei Hua Foundation Limited K. C. Wong Education Foundation

#### Who should attend:

Educators, researchers, technologists, implementers and practitioners of Web-based learning from around the world to discuss the state of the art in this area.

CALL FOR PARTICIPATION websites: http://www.hkws.org/cwlearn

#### **Preliminary Program:**

#### Conference Day, 17 August 2002

08:30-08:50 Registration

08:50-09:00 Welcome Speech — Professor P. S. Chung (Vice-President, City University of Hong Kong)

#### Keynote speech

A Growing Book for Distance Learning 09:00-09:45

- Professor Shi-Kuo Chang (University of Pittsburgh, USA)

09:45-10:15 Refreshment

(1B)

Parallel Sessions 1A System Modeling and 1B Distance Learning Systems

An OPEN Framework for Smart and Personalized Distance Learning 10:15-10:35 (1A)

- Ruimin Shen, Han Peng, Fan Yang, Qiang Yang, Joshua Huang (Shanghai Jiaotong University, China)

(1B)Web-Based Knowledge-Based System on Liquid Retaining Structure Design as Instructional Tool

- F. Albermani, K.W. Chau (University of Queensland, Australia)

A Metadata Framework for Description of Learning Objects 10:35-10:55 (1A)

- William W. Song (Isafjordsgatan, Sweden) A Web-based Language Learning System

- Johann Gamper, Judith Knapp (Free University of Bolzano, Italy)

A Web-based Motivation-Supporting Model for Effective Teaching-Learning 10:55-11:15 (1A)

- Woochun Jun, Le Gruenwald, Jungmoon Park, Sukki Hong (Seoul National University <mark>of Education, Korea)</mark>

WebMath: An Web-based ITS System

- Chunnian Liu, Lei Zheng, Junzhong Ji, Dong Jia, Chuan Jiang, Wensheng Yan (Beijing Polytechnic University, China)

The Design and Implementation of a Web-based Teaching-Learning Model for Information Communication Technology 11:15-11:35 (1A)

**Application Education** 

- Hyosook Jung, Le Gruenwald, Sukki Hong (Seoul National University of Education, Korea)

(1B) Smart Remote Classroom: Creating a Revolutionary Real-time Interactive Distance Learning System

- Yuanchun Shi, Weikai Xie, Guangyou Xu (Tsinghua University, China)

On Analysis and Modeling of Student Browsing Behaviour in Web-based Asynchronous Learning Environments 11:35-11:55 (1A)

- Feng Hsu Wang (Ming Chuan University, Taiwan, ROC)

Critical Success Factors for Web-based Organizational IT Training Systems (1B)

- Hao Wang, Heng Xu, Hock Chuan Chan, Ling Chen (National University of Singapore, Singapore)

11:55-12:15 (1A) Conceptual Network Based Courseware Navigation and Web Presentation Mechanisms

- Sanding Luo, Sha Sha, Deyao Shen, Weijia Jia (Central South University, China)

Application of Quality Assurance in Web-based Laboratories (1B)

- Reggie Kwan, JSF Chan (Open University of Hong Kong, Hong Kong SAR)

12:15-01:50

Parallel Sessions 2A Collaborative Systems and 2B Experiences in Distance Learning

Towards Open Standards: the Evolution of an XML/JSP/WebDAV Based Collaborative Courseware Generating System 01:50-02:10 (2A)

- Changtao Qu, Wolfgang Nejdl (University of Hannover, Germany)

Experiences in running a flexible, web-based and self-paced course (2B)

Francis Chin, C K M Wong, V. Mak (University of Hong Kong, Hong Kong SAR)

02:10-02:30 (2A) An Educational Community Using Collaborative Virtual Environments

- Ch. Bouras, D. Psaltoulis, Ch. Psaroudis, Th. Tsiatsos (University of Patras, Greece)

Virtual Teaching and Learning Based on Multimedia Techniques: Experiences from a Master Program Delivered over

the Internet

- Karl Kurbel (Virtual Global University, Germany)

02:30-02:50	(2A)	KGCL: A Knowledge-Grid-based Cooperative Learning Environment - Hai Zhuge, Yanyan Li (Chinese Academic of Science, China)			
	(2B)	Experiences in Developing a Large-Scale School IT Project - Processes, Outcomes and Issues - John BARRETT, Nadia Hing-Wah NG, Kathy EDWARDS (City University of Hong Kong)			
02:50-03:10	(2A)	A component-based architecture for adaptive, collaborative Web-based learning			
(2B)		<ul> <li>Yugyung Lee, James Geller (University of Missouri-Kansas City, USA)</li> <li>Enabling Communities by Constructed Media: The Case of a Web-Based Study Environment for A Talmudic Tractate</li> <li>Ralf Klamma, Matthias Jarke, Elisabeth Hollender, Dagmar Börner-Klein (Lehrstuhl für Informatik V, Germany)</li> </ul>			
03:10-03:30	(2A)	Virtual Programming Lab for On-line Distance Learning - Weidong Cao, Jiannong Cao, Alvin Chan (Jiangsu Institute of Education, China)			
	(2B)	Innovative Teaching Through The Cyber University - Ronnie Cheung (Hong Kong Polytechnic University, Hong Kong SAR)			
03:30-03:50	(2A)	The Vega Grid and Grid-Based Education - Zhiwei Xu (Chinese Academy of Sciences, China)			
	(2B)	Supporting Practices in Web-based Learning - Changjie Tang, Qing Li, Rynson Lau, Xiaodong Huang (Sichuan University, China)			
03:50-04:20		Refreshment			
Parallel Sessions 3A		Database and Data Mining and 3B Multimedia			
04:20-04:40	(3A)	Construction of Web-based Lecture Video Database System with Flexible Indexing Method Using Action Logs - Akira Okada, Yahiko Kambayshi (Kyoto University, Japan)			
	(3B)	Web-based Video Indexing and Retrieval for Teaching and Learning - Simon So (Hong Kong Institute of Education, Hong Kong SAR)			
04:40-05:00	(3A)	A Locking-based Transaction Scheduling Algorithm for Supporting Web-based Classes - Chanjung Park, Hwakyung Rim (Cheju National University, Korea)			
	(3B)	Applying Multimedia Authoring Tool and XML Techniques to Standardized Knowledge Management for Web-based Learning			
		<ul> <li>Yueh-Min Huang, Chin-Chiang Chang, Pin-Ying Chiu, Shin-Chang Huang, Cheng-Chung Chu (National Cheng Kung University, Taiwan ROC)</li> </ul>			
05:00-05:20	(3A)	Database and Metadata Support of a Web-based Multimedia Digital Library for Medical Education - Jianting Zhang, Le Gruenwald, Chris Candler, Gary McNutt, Wei Shung Chung (University of Oklahoma, USA)			
	(3B)	Fifth Normal Form Made Easy with Novel Web-based CAI HCI - Joseph Fong, Irene Kwan, Margaret Ng, K L Lau (City University of Hong Kong, Hong Kong SAR)			
05:20-05:40	(3A)	Design and Evaluation of Lecture Support Functions for Question Database - Chisa Sumitomo, Akira Okada, Uahiko Kambayashi (Kyoto University, Japan)			
	(3B)	Multimedia Knowledge Exploitation for E-learning: Some Enabling Techniques - Yueting Zhuang, Xiang Liu (Zhejiang University, China)			
05:40-06:00	(3A)	Using Web Page Classification and Association Rule Mining for Personalized Recommendation in Distance Learning - Daling Wang, Ge Yu, Yubin Bao (Northeastern University, China)			

# Conference Day, 18 August, 2002

09:00-05:00

Tutorial Session at City University of Hong Kong
- Professor Kamal Karlapalem (International Institute of Information Technology, India)
XML and Agent Technologies for Mentor Driven Mass Learning

# **Sub-topics**

Overview Introduction to XML Introduction to Agent Technologies Mentor Driven Mass Learning — MSIT and Learning from Doing Scenarios How do XML and Agent Technologies help? Agent driven Learning

### Conference Day, 19 August 2002

Conference Day, 19 August 2002					
08:50-09:00		Registration			
Parallel Sessions 4A		Applications and Models and 4B Tools			
09:00-09:20 (4	(4A)	A Web-Based Computer-Aided Learning Package on Pipe Flow - P.K. Yu, K.W. Chau (Hong Kong Polytechnic University, Hong Kong SAR)			
(4	(4B)	Improving the Design an Online Evaluation Tool Utilizing Confidence Measurement - Graham Farrell, Ying K Leung (Swinburne University of Technology, Australia)			
09:20-09:40 (4	(4A)	Application of Web-Based Training (WBT) in Hong Kong Organizations - Simon Chi-hong Chan (Hong Kong Polytechnic University, Hong Kong SAR)			
(4	(4B)	Refactoring the Application Infrastructure for Building Open-Distance-Learning Websites - Lessons Learned in a Case Study in a German Literature and Language e-Learning Application - Alexander Schatten, Marian Schedenig, A Min Tjoa (Vienna University of Technology, Austria)			
09:40-10:00 (4	(4A)	University Teaching in the "Post Xerox" Age - L. Naber, M. Kohle (Vienna University of Technology, Austria)			
(4	(4B)	The Design and Implementation of Virtual Laboratory Platform in Internet - Wang Jianxin, Chen Songgiao, Jia Weijia, Pei Huimin (Central South University, China)			
10:00-10:30		Refreshment			
10:30-10:50 (	(4A)	On the Design of Mathematical Instruction Material for Distant Learning Platform - Pao-Ta Yu, Chung-Ming Own, Hung-Ping Yu (National Chung Cheng University, Taiwan ROC)			
(4	(4B)	InCom: A Collaborative Tool for Distance Learning  - K. M. Ng, S. J. Wong, Y.L. Wong, S.C. Ng (Hong Kong Institute of Vocational, Hong Kong SAR)			

10:50-11:10	(4A)	Learning Through Web-based Assessment - Chi Kuen Wong, Wai Wong, Chor Hung Yeung (Hong Kong Baptist University, Hong Kong SAR)
	(4B)	PLATO - Platform for Learning and Teaching Online - William Lee, H-Arno Jacobsen (University of Toronto, Canada)
11:10-11:30	(4A)	Web-based Platform CLP for Collaborative Learning - Mao Xiaguang and Qi Zhichang (China)
	(4B)	Architecture and Algorithms of CPS: an Agent-based Tutoring System for Coached Problem Solving on the Web - Elvis Wai Chung Leung, Qing Li (City University of Hong Kong, Hong Kong SAR)
11:30-11:50	(4A)	A platform for Virtual Laboratories - Wolfgang Halang, Ping Tang (Fernuniversitat, Germany)
	(4B)	Integrating Multimedia and Software Agents for Effective Web-based Learning - Tanko Ishaya, Stamatis Gussious, Charlotte M. Jenkins (The University of Hull, UK)
11:50-12:10	(4A)	An Adaptive Virtual University - John Barofalakis, Evangelos Sakkopoulos, Spiros Sirmakessis, Athanasios Tsakalidis (Research Academic Computer Technology Institute, Greece)
	(4B)	VEGA-KGQA: A Knowledge-Grid-Based Question Answering Approach - Hai Zhuge, Yanyan Li, Jia Bi (Chinese Academy of Sciences, China)
12:10-12:30	(4A)	Amadeus: A Framework To Support Multi-Dimensional Learner Evaluation
	(4B)	- Patricia Tedesco, Alex Sandro Gomes (Cidade Universitária, Brazil) Collaborative Learning based on Multi-Agent Model
12-20-02-00		- Dazheng Wang, Ruimin Shen, Liping Shen (Shanghai Jiaotong University, China)
12:30-02:00	()	Lunch
02:00-02:20	(4A)	The Effectiveness of Using Computer-Mediated Instruction In Distance Mathematics Education - May S.C. Chan (Open University of Hong Kong, Hong Kong SAR)
	(4B)	Ubiquitous e-learning - a concept of virtual knowledge
		- Mats B Anderson (Royal Institute of Technology, Sweden)
02:20-02:40	(4A)	Preliminary Evaluation of a Computerized Adaptive Testing System on the Web - Kenneth Wong, J Chan, Reggie Kwan (Open University of Hong Kong, Hong Kong SAR)
	(4B)	Patterns of Web Based Learning in the Semantic Web Era - Andrew K. Lui, S. C. Li (Open University of Hong Kong, Hong Kong SAR)
02:40-03:10		Refreshment
03:10-03:30	(3B)	Web-based Interactive 3D Visualization for Computer Graphics Education - Li Yang, Mustafa Sanver (Western Michigan University, USA)

## **Background**

Discussion Panel 03:30-05:30

It is recognized that traditional classroom based learning cannot cope with the needs of the individual students and the increasing demand for life-long learning. The popularity of the World Wide Web and its development has enabled the creation and implementation of Webbased learning. This is of particular importance to shift from teacher-centered to student-centered learning environment. The evolving new generation of education environment leads to a revolution in traditional teaching. With the rapid development of Web-based learning and new concepts like virtual classroom, virtual laboratory and virtual university, there are various issues that need to be addressed. On the technical side, there is a need for the effective use technology for deployment of Web-based education. On the learning side, the cyber mode of learning is very different from the classroom based learning. How can instructional development cope with this new style of learning? On the management side, the establishment of the cyber university imposes very different requirements for the set up. Does industry-university partnership provide a solution to address some of the technological and management issues? As with many other new developments, more research is needed to establish the concepts and best practice in Web based learning. The rapidly growing demand for e-learning is forcing educational institutions to expand in remote learning through the Web in terms of technological and pedagogical development. The successful application of e-learning provides enhancements in workforce performance, helps to lower cost, and encourages innovation. This conference aims at providing an in-depth study of the technical, pedagogical, as well as management issues on Web-based learning. The Hong Kong Web Society is organizing the above conference in conjunction with City University of Hong Kong and the Hong Kong Polytechnic University to provide a forum to bring together educators, researchers, technologists and the implementers of Webbased learning from around the world to discuss the state of the art in this area.

## **Conference Organization**

Honorable Conference Chair:

Cheung, T Y City University of Hong Kong

Conference Chair:

Fong, Joseph Hong Kong Web Society / City University of Hong

Panel discussion on Web-based Learning

- Chair by Dr. Weijia Jia (City University of Hong Kong)

Kung

Organizing Chair:

Chan, Keith Hong Kong Polytechnic University

Organizing Vice Chair:

Kwan, Irene Lingnan University

Industrial Stream:

Fong, Anthony City University of Hong Kong

Treasurer:

Li, Qing City University of Hong Kong

# **Program Committee Chairs**

PC Co-Chair:

Jia, Weijia City University of Hong Kong Cheung, Ronnie Hong Kong Polytechnic University Kwan, Reggie Open University of Hong Kong Publication:

Tsang, Philip Open University of Hong Kong

Web Master:

Leong Hong Va Hong Kong Polytechnic University

Local Arrangement and Tutorial Management:
Ng, Margaret Hong Kong Web Society / Cit

g, Margaret Hong Kong Web Society / City University of Hong Kong

Publicity:

Chan, Jimmy Open University of Hong Kong

Conference Secretary:

Chan, Cherry Hong Kong Polytechnic University

**Program Committee** Aberer, Karl Bressan, Stêphane Busseler, Christoph Cao, Jiannong Chan, Daniel Chang, Elizabeth Chen, Arbee Chen, Houn-Gee Chen, Peter Cheung, David Cheung, TY Chin, Francis Chow, Paul Corkindale, David Dillon, Tharam Fung Chiwai Halang, Wolfgang Hou, Wen-Chi

Hughes, John Huang, Shi-Ming

Karlapalem, Kamal

Ip, Horace

Jin, Qun

Ku, Cleve

Kunii, Tosiyasu Lam, Ernest

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City University of Hong Kong, HK Hosei University, Japan

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Le Gruenwald, G. Lee, Dik

Lee, Victor Li, Guojie Liu, Chun Nian Maier, David McLeod, Dennis Meersman, Robert Mylopoulos, John Navathe, Shamkant Orlowska, Maria Paul, Ray Smith, Peter Su, Stanley Tang, Changjie Thalheim, Bernhard Thiel Ulrich Tjoa, A Min Wang, Lusheng

Wong, Tat-Meng Wei, Sun Wong, Kam-Fai Wu, Simon Zhao, Wei Zhou, Wanlei Zhuang, Yueting

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Open University of Hong Kong, HK Florida International University, USA Chinese University of Hong Kong, HK Merrill Lynch, USA

Texas A & M University, Texas, USA Deakin University, Australia Zhejiang University, China

#### When & Where Conference:

17 and 19 August 2002, 9:00am-6:00pm Kowloon Shangri-La Hotel, Tsim Sha Tsiu, Kowloon, Hong Kong

**Conference Tutorial:** 

18 August 2002, 9:00am-5:00pm City University of Hong Kong, Kowloon Tong, Kowloon, Hong Kong

17 August 2002, 7:00pm, with Speakers and Participants

#### How to Register:

Send the registration form with a cheque or credit card payable to Hong Kong Web Society for the registration fee to Cherry Chan in either of the following ways:

Email: csptchan@init.polyu.edu.hk

(852) 27642528

or through online registration: http://www.hkws.org/cwlearn

Registration Form								
First Name	Last Name							
Name on Badge								
Company/Institution								
Telephone	FAX							
Conference Registration Fees  Conference registration includes access to all the technical sessions, conference tutorials, one copy of the conference proceedings, one copy of the industrial proceedings, all lunches and the banquet. Student registration includes all these except lunches and banquet. The registration fees are in US\$ or HK\$ only.  (We do not accept any other currencies.)								
	Payment received by July 15	<del>-</del>	ment received after July 15th, 2002					
Non-Member	US\$289 / H		US\$321 / HK\$2500					
	ember US\$257 / H		US\$289 / HK\$2250					
Full-time Student	US\$102 /	IK\$800	US\$102 / HK\$800					
School teacher/ VLDB attendee (non-speaker)	US\$193 / H	<\$1500	US\$193 / HK\$1500					
Membership Number: (Your ACM/IEEE/HK Web Soc. membership number is required for the member rate.)  Payment  Payment may be made by credit card (VISA or MASTER card only) or cheque. However, payment by credit card is strongly recommended. For payment by cheque, please make cheques payable in US\$ or HK\$ to "Hong Kong Web Society".  Payment Amount  Registration Fees (US / HK)* \$								
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