



APSCE NEWSLETTER

ISSUE 2, June 2007

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PRESIDENT'S MESSAGE

Dear Members,

Welcome to the June issue of APSCE's newsletter. In this issue, I would like to highlight several issues that the ECs and I have been diligently working on to help our society progress and grow further. For the moment, the society has formed two task forces to deal with two important issues—one is on the formation of Special Interest Groups (SIGs), and the other is on membership.

Thanks to Tak-Wai, who has been putting in a lot of thoughts and efforts in the formation of different SIGs. I am glad that there will be different SIGs' activities organized either before each ICCE and/or between ICCEs in the near future.

On the membership issue, a designated task force has been working on different ways to attract more people to join and participate in our society. It is hoped that these new members will bring in new and fresh ideas to strengthen our society. Among the alternatives currently under consideration by the society include: the introduction of different categories of members, free membership subscription for conference attendees and accessibility to past-conference papers online.

All these plans will be announced officially once we have the proposals ready and approved by the EXECO. I sincerely hope that what we have planned will materialize soon which in turn can help our society become more vibrant in the coming years.

With best wishes

Fong-Lok Lee

DOCTORAL STUDENT CONSORTIUM OF ICCE2007—CALL FOR PAPERS

The DSC will be a one-day workshop held prior to the start of the ICCE2007 main conference (November 5-9, 2007; Hiroshima Prince Hotel, Hiroshima, Japan). The DSC will provide an opportunity for a selected number of Ph.D. students to present their dissertation work-in-progress with comments to follow from a panel of established researchers in the field so that feedback can be obtained for further refinement of their dissertation works.

DSC paper submissions must not exceed 4 pages. A two-page summary of each accepted submission will be included for publication in the main conference proceedings. The Asia-Pacific Society for Computers in Education (APSCE) and the Japanese Society for Information and Systems in Education (JSiSE) will provide 4 lunch tickets (for the DSC day and three main conference days) and a banquet ticket, which are not included in the student registration fee, to students whose submission is accepted for presentation at the DSC to help foster international academic communication between DSC presenters and other researchers.

Detailed information on eligibility and application process, please access the link at <http://www.icce2007.info/>

Submission deadline for DSC has been extended to **June 16, 2007**.

Inquiries about the DSC should be emailed to the Co-Chairs:

- Fu-Yun Yu, Institute of Education, National Cheng-Kung University, Taiwan (fuyun@mail.ncku.edu.tw)
- Tatsunori Matsui, Faculty of Human Sciences, Waseda University, Japan (matsui-t@waseda.jp)

ACCEPTED ICCE2007 WORKSHOPS

Workshop Co-Chairs

Jimmy Lee (The Chinese University of Hong Kong, Hong Kong)

Benjamin Chang (National Central University, Taiwan)

Judy Kay (University of Sydney, Australia)

Daniel Suthers (University of Hawai'i at Manoa, USA)

In total, eight workshop proposals have been accepted.

■ **W1: Fun and Learning: Should Educational Games and Toys be Serious?**

Organized by Ben Chang and Jimmy Lee

■ **W2: MULE2007: "Design and Experiments of Mobile and Ubiquitous Environments"**

Organized by Hiroaki Ogata, Cheng-Chun Liu and Masanori Sugimoto

■ **W3: Intelligent and Adaptive Web-Based Educational Systems**

Organized by Oscar Lin and Sabine Graf

■ **W4: Knowledge Building Research in Asia Pacific**

Organized by Hyo-Jeong So, Katerine Bielaczyc, Chee-Kit Looi, Seng Chee Tan and Ching Sing Chai

■ **W5: Workshop on Semantic Technology for Learning**

Organized by Riichiro Mizoguchi

■ **W6: Modeling, Management and Generation of Problems/Questions in e-Learning**

Organized by Fu-Yun Yu, Tomoko Kojiri, Tanja Mitrovic and Tsukasa Hirashima

■ **W7: International Workshop on Social Intelligence and Learning Environment**

Organized by Kenji Matsuura

■ **W8: The Trends and the Future of Open Source Software and Standardization**

Organized by Mitsuru Ikeda, Tsuneo Yamada, and Kiyoshi Nakabayashi

Interested members are advised to access <http://www.icce2007.info/> for more detailed information (e.g., submission deadline, paper submission format, etc.) on each of the accepted workshops after **June 15, 2007** as the final version call for papers/participation should be posted on the web.

SHOWCASE ON ICCE2006 BEST PAPER AND BEST STUDENT PAPER AWARDS

As a special recognition of our researchers' achievement, one ICCE2006 best paper award and one best student paper award are showcased in this issue of APSCE newsletter—

BEST PAPER AWARDS—ONTOLOGICAL MODELING APPROACH TO BLENDING THEORIES FOR INSTRUCTIONAL AND LEARNING DESIGN.

BY YUSUKE HAYASHI, JACQUELINE BOURDEAU AND RIICHIRO MIZOGUCHI

This write-up was contributed by Yusuke Hayashi.

Yusuke Hayashi is a research associate of the Institute of Scientific and Industrial Research (ISIR) in Osaka University, Japan. His research interests include ontology engineering, and intelligent learning support systems.

Jacqueline Bourdeau is a professor of Educational Technology at Télé-université, UQAM, Canada, and

a researcher at LICEF, a research center on computer science and learning environments. Her research interests include intelligent tutoring systems, ontologies, instructional design, collaborative learning, tele-presence, and video-communication.

Riichiro Mizoguchi is a professor of ISIR in Osaka University, Japan. His research interests include non-parametric data analyses, knowledge-based systems, ontology engineering, and intelligent learning support systems.

This paper presents our modeling framework for learning and instructional design from the viewpoint of ontological engineering, and discusses how an ontology contributes to modeling a learning and instruction scenario from a comprehensive viewpoint of various educational theories with an example of a model of theoretical knowledge for education based on this modeling framework.

One of the characteristics of this framework is that it is based on a theory and paradigm-independent ontology for modeling learning and instruction. In other words, this means that we are trying to build a modeling framework within which the user can compare multiple theories and apply one or some theories to his/her own instructional/learning scenarios based on an ontology. The purpose of this study is not to expose a scientifically valid basis for organizing educational theories, nor to reconstruct them on this basis, but rather to find an engineering approximation that allows the building of an engineering infrastructure that enables instructional designers and teachers to utilize educational theories.

The other characteristic of this framework is the independent conceptualization of “what is achieved” and “how to achieve” the change of learners as the result of learning/ instruction. The major contribution of the separation is to make the differences and the similarities of theories clear. Some theories indeed have differences in the method (how to achieve). However, at the same time, the objective (intended change of learner state) can be described in common. From this viewpoint, an example shown in this paper illustrates how the theories can be compared and applied to a learning and instructional scenario in our framework.

The ontology we have been developing is now released for evaluation on the project web site (<http://edont.qee.jp/omnibus/doku.php>). The current ontology is still at the preliminary stage of our project. We have plans in the future to continue refining it and welcome your contribution for the refinement. We hope the ontology helps the users

utilize theories for scenario design through the top-down approach as well as to build up new theories and share best practices through the bottom-up approach. We believe the OMNIBUS project will contribute in harmonizing theory and practice of instructional and learning design.

Lastly, we are truly honoured to receive the best paper award. We are also very pleased that we had a fruitful discussion with the participants of the ICCE2006 during our presentation.

BEST STUDENT PAPER AWARDS—DEVELOPING A VR-BASED PROJECTILE SYSTEM USING HAPTIC DEVICE FOR LEARNING PHYSICS

BY ATSUSHI KANBE, YUKIHIRO MATSUBARA, NORIYUKI IWANE AND KIMIKO HIRAYAMA

This write-up was contributed by Atsushi Kanbe.

I am a master student at Hiroshima City University. My research area is knowledge engineering, especially its application for learning support and supporting physically challenged people. Yukihiro Matsubara and Noriyuki Iwane are my supervisors, and Kimiko Hirayama is a senior in my course.

In Japan, more and more students are moving away from the sciences. This is an alarming trend and something must be done to arrest this problem. One way of tackling this problem is to enhance learning through discovery learning. Discovery learning helps spontaneous motivation and proactive thinking, and has the capability of increasing students' willingness to learn and retention of knowledge. This study focused on learning with experience in discovery learning. Learning with experience needs direct-manipulability and action consistency, but traditional mouse action is not considered adequate for meaningful learn. For this reason, we have introduced a force-feedback device as a user interface to manipulate virtual laboratory directly. Furthermore, we considered the consistency between virtual experiment and body motion, and we tried to enhance the feeling of immersion. We aimed at developing a learning support system about upward projectile using force-feedback device, and proposed a virtual laboratory.

Students who use our system can learn about physical laws related to upward projectile. Student can test their hypothesis, during which they think independently in the virtual laboratory. Hence, proactive learning by students can be expected. Furthermore, we devised the ways of manipulating

a force-feedback device and generating reaction force, and we tried to enhance reality.

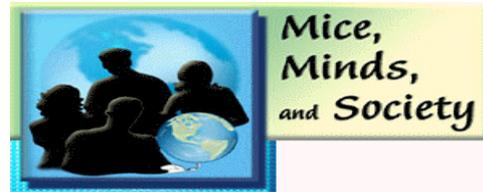
Through the assessment experiments, we found that our system was able to motivate students by discovery learning focused on experience. Students can intuitively and directly manipulate by introducing force-feedback device in the environment of learning focused on experience. Additionally, students can experience reaction force of the virtual object, and it's expected that the quality of learning can be improved. Moreover, students could feel the virtual experiment more naturally by relating the manipulation method of force-feedback device to body motion, and this leads to enhancing the feelings of "immersion, presence and manipulation" that are accentuated in virtual reality.

We are pleased to receive the best student paper award of ICCE2006. We are further improving the system after the conference. Now, from the aspect of learning support, our research team has expanded the present system to the learning support environment where students now can throw objects from any angle. We think that the new system enables students to learn physical phenomenon during which the student is aware of the relevance among various laws of motion. On the other hand, we also expanded the system for supporting physically challenged or elderly people. We think that the system using a force-feedback device can be applied to motor rehabilitation of upper extremity. We are sure that both learning and rehabilitation can be supported by thought based on education using computers and VR technology. We hope that our VR-based system will be regarded as a significant contribution to society. Thank you very much for awarding us this prestigious award.

Dissemination of news of its members and news for its members has been one of the goals of APSCE's newsletters. Personal news about community members (such as job changes, promotions, etc), research developments (e.g., new centers, books, software), and recent academic activities are more than welcome to be emailed directly to Fu-Yun Yu (Chair, Newsletter Subcommittee). For your piece to be included in the next issue, an electronic copy of the file must be emailed to Fu-Yun Yu 10 days prior to the scheduled publication date of next issue (September 10 of 2007) at fuyun@mail.ncku.edu.tw

FORTHCOMING ICT-RELATED CONFERENCES

Computer Supported Collaborative Learning (CSCL 2007)



Conference Chairs

Cindy Hmelo-Silver (Rutgers University)

Angela O'Donnell (Rutgers University)

Theme: Of Mice, Minds, and Society.

The conference explores interrelations among technology, individual cognition, and social cognition. The goal of the conference is to sharpen the community's perspectives on how these threads of CSCL are interwoven and how they interactively contribute to an understanding of the nature of learning in technology-supported environments. This year's conference will be held in Rutgers, the State University of New Jersey on July 16-21, 2007. More details can be found here <http://www.isls.org/cscl2007/index.html>

International Conference on Advanced Learning Technologies (ICALT 2007)



General Co-chairs

Toshio Okamoto (The University of Electro-Communications, Japan)

Kinshuk (Athabasca University, Canada)

Stefano A. Cerri (LIRMM, CNRS & Un. Montpellier II, France)

Theme: Distributed social and personal computing for learning and instruction

ICALT will be held on July 18-20 in Niigata, Japan. This conference creates opportunities for presenting and discussing vivid, creative solutions and experimental work at the point of collaborative learning via advanced media. Details of this conference can be obtained from <http://www.ask.iti.gr/icalt/2007/>

IADIS INTERNATIONAL CONFERENCE WWW/INTERNET 2007



Program Chair

Miguel Baptista Nunes (University of Sheffield, United Kingdom)

The IADIS WWW/Internet 2007 conference aims to address the main issues of concern within WWW/Internet. WWW and the Internet had a huge development in recent years. Aspects of concern are no longer just technical anymore but other aspects have emerged. This conference aims to cover both technological as well as non-technological issues related to these developments. It will be held in Vila Real, Portugal on October 5 – 8, 2007.

For more information, please visit the conference website at <http://www.internet-conf.org/>

Eleventh International IEEE EDOC Conference (EDOC 2007)



General Chair

Don Sparrow (The Mitre Corporation)

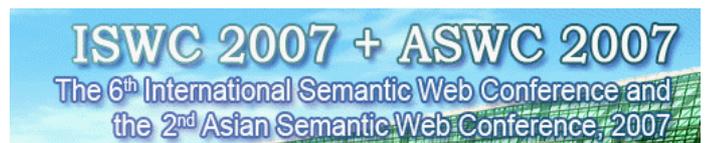
Program Co-chairs

Marcus Spies (Munich University, Germany)

M. Brian Blake (Georgetown University, USA)

The IEEE EDOC Conference is the primary annual event focusing on the convergence of the paradigms, technologies and methods involved in enterprise computing. The IEEE EDOC Conference, will take place on October 15-19, 2006 in Annapolis Maryland, U.S.A. The Conference emphasizes the integration and management of enterprise computing research and development results, fostering an enterprise and social organizational engineering approach that can address and relate business, application, middleware and technical levels. The themes of openness and distributed computing, based on services, components and objects, provide a useful and unifying conceptual thread for this purpose. More information can be obtained from the conference website at <http://edoc.mitre.org/index.html>

The 6th International Semantic Web Conference and the 2nd Asian Semantic Web Conference 2007



General co-chairs

Riichiro Mizoguchi (Osaka University, Japan)

Guus Schreiber (Free University Amsterdam, Netherlands)

To foster the exchange of ideas and collaboration, the International Semantic Web Conference brings together researchers in relevant disciplines such as artificial intelligence, databases, social networks, distributed computing, web engineering, information systems, natural language processing, and human-computer interaction. The Sixth International Semantic Web Conference (ISWC 2007), especially joined with the Second Asian Semantic Web Conference (ASWC2007), will truly play a vital role in promoting mutual cooperation, dissemination of research results and exchange of experiences. These conferences will be held from November 11-15, 2007. Details of this conference can be obtained from <http://iswc2007.semanticweb.org/>

Openlearn 2007

openlearn 2007

The ways in which people can learn are changing with new opportunities to learn at a distance, to learn as part of global community and to learn using new technologies. Open and free educational resources are an important component in this expanded world of learning and major initiatives are now underway to provide such resources. This conference recognises the research challenge alongside the business challenge of providing, using and sustaining free and open resources and invites contributions and participation from those who are interested in how to research open content and what the findings are from those working in this challenging area.

Openlearn will be held from October 30-31, 2007 at Milton Keynes, UK and more information about this conference can be accessed from <http://www.open.ac.uk/openlearn/openlearn2007/conference.php>

World Conference on E-Learning in Corporate Government, Healthcare & Higher Education (E-Learn 2007)



E-Learn

World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education

E-Learn will be held in Quebec City, Canada from October 15-19, 2007. This conference provides a unique forum for Government, Healthcare, Education, and Business professionals to discuss the latest research, development, applications, issues, and strategies, to explore new technologies, and to identify solutions for today's challenges related to online learning. A variety of opportunities and venues are designed to enable participants to actively learn from and collaborate with a multinational, cross-industry expert faculty and peers on the research, development, diverse learning experiences, implementation and technology needed to improve e-learning. More information can be obtained from <http://www.aace.org/conf/eLearn/Intro.htm>

International Malaysian Educational Technology Convention 2007



Theme: Smart Teaching & Learning:
Re-engineering ID, Utilization and Innovation of Technology.

Up to the year 2006, the Malaysian Educational Technology Association (META) has successfully organized 19 conventions. As for the 20th convention in 2007, META is extending its scope to the international level. META is collaborating with the Faculty of Education Universiti Teknologi Malaysia, Educational Technology Division (ETD) Ministry of Education Malaysia, Johore State Education Department (JPN) and Johore State Educational Technology Division (BTPN) in organizing the 1st International Malaysian Educational Technology Convention on November 2-5, 2007. Details of this conference can be obtained from <http://www.fp.utm.my/ptpm2007/>

APSCE HQs has set up a public mailing list (<http://mail.apsce.net/mailman/listinfo/bulletin/>) Members who have news that are of high interests to members of the Society can take advantage of this newly added feature on APSCE's website.