

# Report on Cyberworlds 2008

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The 7<sup>th</sup> International Conference on Cyberworlds'2008, CW'08, was held in Hangzhou 22-24 September 2008 (Fig. 1). It was organized by the Zhejiang University, in cooperation with Eurographics (EG) and National Science Foundation in China. This was the first Chinese university to host the conference.



Fig. 1. Conference delegates just after the opening ceremony on the stairs of the conference venue—Yifu Shao Science and Technology Museum in the Yuquan Campus of the Zhejiang University.

Cyberworlds are information worlds or communities created on cyberspace by collaborating participants either intentionally or spontaneously. As information worlds, they accumulate information regardless whether or not anyone is in, and they can be with or without 2D or 3D visual graphics appearance. The examples of such cyberworlds are communities created in different social networking services (e.g., Facebook, MySpace, Hi5, Friendster, Kaixin), virtual shared worlds (e.g., Habbo, There, Second Life, HiPiHi, Entropia Universe, Meez, Nicktropolis, Roma Victor, SmallWorlds, Worlds, Yoowalk, Zwinky, Virtual Laguna Beach, IMVU, World of Kaneva, Croquet communities) and multiplayer online games (e.g., Ultima Online, EverQuest, World of Warcraft, Final Fantasy XI, MapleStory, Phantasy Star Online, Rohan: Blood Feud, Guild Wars, Entropia Universe, Disney Club Penguin, Whyville, Webkinz, Mokitown).

The reported millions of registered virtual residents of these places constitute a huge community compared to just a few thousand when it all started as Habitat in the late 80s followed by Cybertown and Active Worlds in early 90s which in fact implemented the concept of Metaverse envisaged in 1992 by Neal Stephenson in his novel "Snow Crash". Nowadays,

cyberworlds are closely related to the real world and have a serious impact on it. Cyberworlds have been created and applied in such areas as e-business, e-commerce, e-manufacturing, e-learning, and cultural heritage. They augment and sometimes replace the real life and become a significant component of real economy. For example in China, according to iResearch Consulting group, the combined market value of social networking services accounted for 280 million yuan in 2007, and about 72 million Internet users visited social network sites per day in July 2008, compared to 25 million per day in February [1].

In terms of information modeling, the theoretical ground for Cyberworlds is far above the level of integrating spatial and temporal database models. The international conferences on Cyberworlds deal with distributed information worlds created on networks as well as methods and tools used for making such worlds. The first workshop on cyberworlds was held as the International Workshop on Synthetic Worlds (University of Aizu, Japan, 1993) to explore the meaning, philosophy and the potential of the worlds synthesized on the web as well as in computational spaces in general. The proceedings were published as a book entitled "Cyberworlds" [2] in which the term Cyberworlds was actually coined. Since 2002, the conferences are organized yearly with the proceedings published by IEEE Computer Society and special issues published by The Visual Computer.



Fig. 2. Conference opening: S.P. Ye, G.C. Chen, T.L. Kunii (Honorary Chair), Z. Pan (General Chair), R. Blade (Key-note speaker)

CW'08 received 167 papers from many countries. For the main program 68 papers were accepted. There were also 3 workshops—Robotics Simulation and Virtual Reality, Virtual



Reality for Safety and Security, and Digital Media and its Application in Museum & Heritage—with 38 full and 35 short papers accepted. Extended versions of the best papers will be selected for the special issues of The Visual Computer (Springer), the International Journal of the Virtual Reality (IPI press) and Transactions on Edutainment (Springer).

The conference started on the very hot and humid day of the 22<sup>nd</sup> of September. After the opening ceremony (Fig. 2), three invited speakers delivered their talks. These were Professor Richard Blade from the University of Colorado, USA, with the talk "Construction Of Digital Musical Instruments for a Virtual Symphony Orchestra" followed by Professor Mark D. Wiederhold from the Virtual Reality Medical Center, USA, with the talk "Virtual Reality as a Universal Language for Behavioral Interventions", and Dr. Kun Zhou from Microsoft Research Asia, China, with the talk "Real-time Computer Graphics" (Fig. 3).



Fig. 3. At the key-note talks in the main conference hall.

The main conference program continued on the 22<sup>nd</sup> and 23<sup>rd</sup> of September as three parallel session tracks. The topics discussed included Philosophy, Evolution, and Ethics of Cyberworlds, Cyberworlds and their Impact on the Real Worlds, Cyber-ethics and Cyber-laws, Visual Cyberworlds, Human Animation, Virtual Reality, Intelligent Agents, Communication, E-business, Data Mining and Warehousing in Cyberworlds, Computer Vision and Augmented Reality for Cyberworlds, Bioinformatics for Cyber-life and Medicine, Cyberworlds for Education, Collaborative Work, Manufacturing, Cyber Fairs and Digital Museums, Virtual Reality for Safety, VR-based robotics, Multi-user Web Games, Virtual Heritage and Museum Environments, Virtual Reality in Archaeology and Historical Research.

A highlight of the second conference day was a lavish conference banquet at the Yuquan Hotel (Fig. 4). Here, for the first time in the history of the conference on cyberworlds, the delegates started to sing songs! We could hear English, Italian, Chinese and Russian songs beautifully sung by the delegates.

On the 24<sup>th</sup> of September, as a special event for the conference participants, there was a very useful and memorable visit to the State Key Lab of CAD&CG in the Zhejiang University hosted by Professor Zhigeng Pan, followed by a city

museum tour. On that day the conference delegates could also enjoy the beauty of the West Lake in Hangzhou and authentic cuisine in Louwailou Restaurant—built in the 1840s by a Qing Dynasty Noble, Louwailou Restaurant is said to be the oldest restaurant in China.



Fig. 4. At the conference banquet.

After that, the delegates went home (Fig. 5) with a hope to meet again in September 2009 at CW'09 in Bradford, UK.



Fig. 5. Farewell Hangzhou. Next stop is University of Bradford.

## REFERENCES

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