

## IFIP SG16

A new Technical Committee (TC) on Entertainment Computing was proposed to IFIP (approval pending) in the following way:

### **TC Title:**

Entertainment Computing

### **Aims:**

To encourage computer applications for entertainment and to enhance computer utilization in the home, the technical committee will pursue the following aims:

- to enhance algorithmic research on board and card games
- to promote a new type of entertainment using information technologies
- to encourage hardware technology research and development to facilitate implementing entertainment systems, and
- to encourage non-traditional human interface technologies for entertainment.

### **Scopes:**

1. Algorithm and strategy for board and card games (algorithms of board and card games; strategy control for board and card games; level setup for game and card games).
2. Novel entertainment using ICT (network-based entertainment; mobile entertainment; location-based entertainment; mixed reality entertainment).
3. Audio (music informatics for entertainment; 3D audio for entertainment; sound effects for entertainment).
4. Entertainment human interface technologies (haptic and non-traditional human interface technologies; mixed reality human interface technologies for entertainment).
5. Entertainment robots (ICT-based toys; pet robots; mental commit robots; emotion model and rendering technologies for robots).
6. Entertainment systems (design of entertainment systems; entertainment design toolkits; authoring systems).
7. Theoretical aspects of entertainment (sociology, psychology and physiology for entertainment; legal aspects of entertainment).
8. Video game and animation technologies (video game hardware and software technologies; video game design toolkits; motion capture and motion design; interactive story telling; digital actors and emotion model).

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9. Interactive TV and movies (multiple view synthesis; free viewpoint TV; authoring technologies).
10. Edutainment (entertainment technologies for children's education; open environment entertainment robots for education).

*Members:* As first members of this TC, Ryohei Nakatsu is named as chair (contact: nakatsu@ksc.kwansei.ac.jp), Matthias Rauterberg as vice-chair, and Claudio Pinhanez as secretary.

*TC Activities:* Already the third International Conference on Entertainment Computing (ICEC) was organized. The next ICEC will be held in 2005 in Japan. SG16 became a sponsor of the international 10<sup>th</sup> Advances in Computer Games Conference (ACG-10), that was held on November 2003 at Graz, Austria. Two panel sessions have been organized: (1) at IFIP TC13 INTERACT conference in 2001 (Japan), and (2) at IFIP World Computer Congress in 2002 (Canada). An additional Topical Day "Virtual Realities and New Entertainment" was held at IFIP World Computer Congress in August 2004 (France).

*TC publications:* Ryohei Nakatsu and Junichi Hoshino (2003, eds.). Entertainment Computing, Kluwer Academic Publishers. Matthias Rauterberg (2004, ed.). ICEC 2004-Entertainment Computing, Lecture Notes in Computing Science, Vol. 3166, Springer Verlag.

## **Working Groups (WG) under TC 'Entertainment Computing'**

### **WG16.1 Digital Storytelling**

*Scope:* Storytelling is one of the core technologies of entertainment. Especially with the advancement of information and communication technologies (ICT), new types of entertainment called video games have been developed where interactive story development is the key that makes those games really entertaining. At the same time, however, it has not been studied well what is the difference between the interactive storytelling and the conventional storytelling. Also as the development of interactive storytelling needs a lot of time and human power, it is crucial to develop technologies for automatic or semiautomatic story development. The objective of this working group is to study and discuss these issues.

*Members:* As a first member of this WG16.1, Marc Cavazza is named as chair (contact: m.o.cavazza@tees.ac.uk).

*WG16.1 Activities:* Already there are several conferences/workshops on digital storytelling. To establish a link between IFIP and these conferences/workshops is the first activity of WG16.1.

### **WG16.2 Entertainment Robot**

*Scope:* Robot is becoming one of the most appealing entertainment. New entertainment robot and/or pet robot is becoming popular. Also, from theoretical point of view, compared with computer graphics based characters/animations, robot is an interesting research object as it has physical entity. Taking these into considerations, it was decided at the SG16 annual meeting that a new working group on entertainment robot is to be established.

*Members:* As a first member of this WG 16.2, Hitoshi Matsubara is named as chair (contact: matsubar@fun.ac.jp).

*WG16.2 Activities:* As a first activity of this working group, WG 16.2 organised a national workshop on entertainment computing, Entertainment Computing 2003, on Jan. 13-15 at Osaka (Japan). It has attracted more than 120 attendees and 30 papers.

*WG16.2 publications:* The proceedings were published from IPSJ (Information Processing Society of Japan) Special Issue on “Entertainment Computing,” IPSJ Symposium Series, No.1, 2003.

### **WG16.3 Theoretical Basis of Entertainment**

*Scope:* Although there are huge entertainment industries already such as video games, toys, robots, etc., little academic interest has been paid on such questions as what is the core of entertainment, what is the technologies that would create new entertainment, and how the core technologies of entertainment can be applied to other areas such as education, learning and so on. The main objective of this WG is to study these issues.

*Members:* As a first member of this WG 16.3, Matthias Rauterberg is named as chair (contact: g.w.m.rauterberg@tue.nl).

Anyone who is qualified and interested in active participation in one of the working groups is kindly invited to contact one of the WG chairs.