

# **IFIP-SG16**

## ***Special Group on Entertainment Computing***

### **Proposal for the change of status from Special Group (SG) to Technical Committee (TC)**

*July 2006*

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This document has been prepared by the Officers of the IFIP Specialist Group 16: Entertainment Computing, in consultation with the members of the group.

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It has been submitted for discussion and editing to the members of the SG. After modifications, this document has been approved during a meeting of the Specialist Group held on the 16<sup>th</sup> June 2006, at Bel Age West Hollywood Hotel, Los Angeles, CA, USA. This document will therefore be submitted to IFIP at the Technical Assembly and then the General Assembly meetings on 25-28 August 2006, in Santiago, CHILE.

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## **1. Introduction**

Entertainment is a diversion intended to attract and hold the attention of its participants. In a sense it is a distraction from daily life, and is experienced on a voluntary basis. Participation can be passive, like watching TV, to active, like yelling and cheering at a sport event.

Entertainment is a major concern of economics. It includes medias, arts, sports, leisure, games and many more. For example, toys and games industries (including computer games) have a turnover of more than £42bn / €60bn / US\$75bn annually. In PR China online gaming market is worth £382m / €548m / US\$683m per year. Disney alone had revenues of £17.9bn / €25.6bn / US\$31.9bn last year. EMI a major music publisher had a turnover of £1,94bn / €2.78bn / US\$3.47bn in 2005. Thus when talking about the entertainment industry, one is talking in terms of hundred of millions if not in terms of billions.

### **1.a. What is Entertainment**

What is the definition of entertainment? It is desirable to ask this question if one wants to explore the research area of entertainment computing. In a dictionary, entertainment is described as: “things that amuse or interest people.” At the same time we have to recognise that a “thrill ride” is classified as an entertainment although the feeling it gives us is beyond amusement or interest and is close to fear. This means that according to the advances of technologies new types of entertainment emerge and the area covered by entertainment is ever changing. Representative entertainments recently introduced into our daily life are portable video games and mobile phones.

While conservative approach has defined entertainment as only an amusement and thus an engagement in entertainment was a “waste of time.” However, it has been demonstrated that entertainment is an essential aspect of our life. If we consider entertainment as “play,” there have been various psychological, sociological, and philosophical considerations about play. In the areas of child psychology and developmental psychology, play is considered as an important factor through which children obtain various kinds of skills. Also for the society entertainment is an essential factor because through play new drama, philosophy, and even law have been created. In other words, play is a basis of culture itself. In summary, entertainment is an essential part of our life that enriches our life and covers very wide area including even art.

### **1.b. What is Entertainment Computing**

Entertainment computing is the overlap of Information and Communication technologies (ICT) and Entertainment.

Entertainment computing is a major change in computing paradigm. It is not about delivery technological solutions per se but about addressing some of our mental needs and some spiritual aspect of our lives. This is a remarkable turnover. Entertainment Computing (EC) is a new research area where researchers/engineers try to treat entertainment based on these considerations. EC covers the following research areas.

- (1) Algorithmic research on entertainment: It is important to investigate board games or card games such as chess and “Go” from a standpoint of algorithms. Already there are various kinds of research involved in this area. However still there is a wide area for algorithmic research to be done for these types of entertainment. Based on the theoretical investigation there is a possibility that new board games or card games would emerge.
- (2) Research on new entertainment: One of the central research themes in EC is research on technologies for the creation of new entertainment and the development of new entertainment system based on these technologies. With the advance of game and virtual reality technologies it is expected that new types of entertainment come out that feature interactions with computers and interactions in virtual environments would come into being. As there are only a few new ideas for video games recently, the research described above would be important for the creation of the next generation of entertainment.
- (3) Research on entertainment hardware/system: For the development of entertainment, advance of hardware, software and system that support the new entertainment is essential. Virtual reality technologies such as the generation of haptic sensation, taste sensation and smell sensation would be some of such technologies. Also network-type entertainment, ubiquitous-type entertainment that go beyond present mobile phone based entertainment would be another good research themes. Another key area is entertainment robotics. In the future it is expected that robot would contribute such areas as medical treatment and physical cares for aged people. For the present, however, the most expected area of robot application is a new entertainment where utilizing its physicality robot could give us new entertainment.
- (4) Research on engagement/immersion in entertainment: New entertainments such as video games and mobile phones have been accepted by our society rapidly. It is necessary and important to investigate why these new entertainments are appealing to people, especially to young generation. On the other hands, people have vague fear for these new entertainments. A representative opinion of such a feat is the one raised by a Japanese researcher. He insisted that by playing video games long time, people would become dementia. It is necessary to investigate whether this really happens or not. As this is an interdisciplinary research area, this research should be carried out under the collaboration with psychologists and sociologists.
- (5) Research on applications: There are wide application areas for EC if we could extract the factor that gives us “joyfulness” or “immersion” when engaged in doing entertainment and if we could apply this factor to other areas. One of the most expected application areas is edutainment. Although the basic concept of edutainment is to develop interesting and joyful education method by integrating the concept of education and entertainment, so far there is only few successful edutainment systems. As it is expected that a huge market would emerge in e-learning and industrial education, EC is a promising research theme in these areas.

## **2. Background**

Since the set up of the Entertainment Computing Task Force (ECTF) in August 2000, there has been significant developments in the area of Entertainment Computing and many progresses made by the ECTF. The background of the SG16 goes back to the set up of an Entertainment Computing Task Force (ECTF) in 2002 alongside the organisation of IWEC2002 (International Workshop on Entertainment Computing). (see sections 2.e and 2.f for further details).

### **2.a. History of the SG16**

The ECTF was set up by the IFIP Committee for Cooperation with Industries (CCI) with the aim of investigating whether the field of entertainment computing was mature enough to attract interest from the ICT community. Furthermore, the ECTF mission was to foster the setting of a group of representatives from academia and industries in the emerging area of entertainment.

Initially the activities of the ECTF were directed at promoting entertainment computing by running a technical event the International Workshop on Entertainment computing (IWEC 2002). This workshop has now turned into the International Conference on Entertainment Computing (ICEC). ICEC has been run annually since then and is scheduled for September 2006 again.

As a first step, Entertainment Computing Taskforce (ECTF) was established at the IFIP general assembly. Dr. Takehiko KAMAE was named as a chair. The aim of the taskforce was to assess whether Entertainment Computing could gather the attention of researchers as one of the research areas of IFIP and also to check whether there is no overlap for the research areas with other TCs. As a first activity of the taskforce, we organized an international workshop on Entertainment Computing to show that there would be a large number of attendees as well as high level papers. Based on the result of the workshop volunteer researchers in this area gathered and discussed about the submission of proposal to IFIP on the establishment of new TC

The first international workshop on Entertainment Computing, entitled as International Workshop on Entertainment Computing (IWEC) was held on May 14<sup>th</sup> – 17<sup>th</sup> at Makuhari, Tokyo, Japan under the sponsorship of Sharp Corporation. The workshop was quite successful with 60 presented papers and 100 participants. Based on this result, it was decided that:

- The establishment of new Technical Committee on Entertainment Computing would be proposed at the next IFIP meeting,
- Prof. Ryohei NAKATSU from Japan would be nominated as a chair of the TC
- From next year the workshop would be upgraded to conference and would be held each year in Asia, America, and Europe in turn.

### **2.b. Proposal to IFIP meeting**

Based on the above decision, we have composed a proposal on the establishment of TC and submitted it to the IFIP General Meeting held in Montreal. Large discussion was carried out at the meeting and the final decision was that as a first step Specialist Group (SG) was to be established instead of TC and that within five years based on the activities of the SG the upgrade of SG to TC would be proposed to IFIP.

Thus the new Specialist Group on Entertainment Computing (SG16) was established with Prof. Ryohei NAKATSU as a chair.

## 2.c. Officers of the SG16

The current officers of the specialist group are:

### Chair:

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### Secretary:

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## 2.d. Full Members of SG16

<b>Countries</b>	<b>Names</b>	<b>Institutions</b>
Austria	Peter PURGATHOFER	Vienna University of Technology
Bulgaria	Galia ANGELOVA	Bulgarian Academy of Science
Canada	Sidney FELS	University of British Columbia
China	Zhigeng PAN	Zhejiang University
Czech	David OBDRZALEK	Charles University
Denmark	To be nominated	
Finland	Ville-Veikko MATTILA	Nokia Research Centre
France	Bruno ARNALDI	IRISA
Germany	To be nominated	
Hungary	Barnabas TAKACS	Hungarian Academy of Science
Ireland	Richard REILLY	University College Dublin
Italy	Paolo CIANCARINI	University of Bologna
Japan	Takehiko KAMAE	National Institute of Informatics
Korea	Hyun YANG	KAIST
The Netherlands	Matthias RAUTERBERG	Eindhoven University of Technology
Norway	Geir Egil MYHRE	University of Troms
Portugal:	Nueno CORREIRA	New University of Lisbon
Singapore:	Adrian CHEOK	Nanyang University of Technology
Spain:	Pedro GONZALEZ-CALERO	Complutense University of Madrid
Thailand:	Natanicha CHORPOTONG	Assumption University
United Kingdom:	Marc CAVAZZA	University of Teesside
USA-ACM:	Donald MARINELLI	Carnegie Mellon University
USA-IEE	To be nominated	
Zimbabwe	Milner Makuni	Afriswitch PVT Limited



## 2.e. Working Groups Chairs

<b>Working Groups</b>	<b>Topics covered</b>	<b>Chairs</b>
WG16.1	Digital story telling	Mark CAVAZZA – UK
WG16.2	Entertainment Robots	Hitoshi MATSUBARA – JP
WG16.3	Theories of Entertainment	Matthias RAUTERBERG - NL
WG16.4	Games and Entertainment Computing	Jaap VAN DEN HERIK - NL
WG16.5	Social and Ethical Issues in Entertainment Computing	Andy SLOANE - UK

## 2.f. Observers

European Commission Liaison: Leonie SCHAEFFER

## 3. Activities

### 3.a. International Conference on Entertainment Computing

We have ICEC (International Conference on Entertainment Computing) as a major conference of our SG. ICEC is held each year. Below is the simple description of the past ICEC, with the IWEC 2002 as the precursor to ICEC.

#### **2002:**

IWEC 2002:

Date: 14-17 May 2002

Venue: Makuhari, Japan

Participants : +100

Papers : 62 papers

Organiser: Prof. Tak KAMAE

A successful event with over 60 papers submitted.

#### **2003:**

ICEC 2003:

Date: 8-10 May 2003

Venue: Entertainment Technology Centre (ETC), Carnegie Mellon University, US

Participants: 130

Organiser: Prof. Donald MARINELLI (Carnegie Mellon University)

This was the first conference after the conference was upgraded from workshop. As the basic background of Prof. MARINELLI is art, the focus was on the interdisciplinary area between technology and art. There were several interesting events such as a panel discussion on the future of entertainment among several famous Hollywood producers, workshops on the theoretical play, and so on.

#### **2004:**

ICEC 2004:

Date: 1-3 September 2004  
Venue: Technical University of Eindhoven, The Netherlands  
Participants: 180  
Papers : 27 full papers, 27 short papers, 18 poster papers, 3 demo papers.  
Organiser: Prof. Matthias RAUTERBERG (Technical University of Eindhoven)  
As the conference was held in Europe, this time focus was on the interdisciplinary are between technology and sociology and psychology. Several discussions including panel discussions were held on the relationship between games and sociology and psychology.

**2005:**

ICEC 2005:  
Date: 1-3 September 2004  
Venue: Kwansei Gakuin University, Japan  
Participants: 160 (60 participants from overseas)  
Papers: 25 full papers, 32 short papers, 3 poster papers, 5 demo papers.  
Organiser: Prof. Ryohei NAKATSU (Kwansei Gakuin University)  
After being held in America and Europe, the conference came back to Japan again. In Japan there are several activities on entertainment computing including domestic conferences on entertainment computing such as EC (Entertainment Computing) and other conferences/workshops. Therefore ICEC was held in conjunction with these conferences/workshops. EC2005 was held just before ICEC in Sanda, Japan. Also after ICEC2005, an international workshop on ubiquitous computing, called Ubiquitous Home Workshop was held in Kyoto, Japan. Many of the ICEC participants attended these conferences/workshops and active discussion was carried out between researchers in this area and people from sociology and psychology.

**2006:**

ICEC 2006:  
Date: 20-22 September 2006  
Venue: Microsoft Research, Cambridge, England  
Papers: 17 full papers and 17 short papers (not all submission deadlines have expired at the time this document was prepared)  
Organiser: Prof. Richard HARPER (Microsoft Research, England)

### **3.b. Activities of the SG16 Working Groups**

So far there are five working groups. Below is the overview of each working group activities. Please consult appendix 7.m to 7.q for detailed reports of activities

#### **3.b.i. WG16.1 - Digital Storytelling**

Chair: Mark CAVAZZA (United Kingdom)

Scope: Storytelling is one of the core technology of entertainment. Especially with the advancement of information and communication technologies (ICT), new type 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 need 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.

### **3.b.ii. WG16.2 - Entertainment Robot**

Chair: Hitoshi MATSUBARA (Japan)

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.

### **3.b.iii. WG16.3 - Theoretical Basis on Entertainment**

Chair: Matthias RAUTERBERG (The Netherlands)

Scope: Although there are huge entertainment industries already such as video games, toys, movies, 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.

### **3.b.iv. WG16.4 - Games and Entertainment Computing**

Chair: Jaap van den HERIK (The Netherlands)

Scope: The scope of this workgroup includes, but is not limited to the following applications, technologies, and activities.

Applications:

Analytical games (e.g., Chess, Go, Poker)

Commercial games (e.g., Action games, Roleplaying games, Strategy games)

Mobile games (e.g., Mobile phones, PDA's)

Interactive multimedia (e.g., Virtual reality, Simulations)

Technologies:

Search Techniques

Machine Learning

Reasoning

Agent Technology

Human-Computer Interaction

### **3.b.v. WG16.5 - Social and Ethical Issues in Entertainment Computing**

Chair: Andy SLOANE (United Kingdom)

Scope: The social and ethical implications of entertainment computing including:

- actual and potential human usefulness or harm of entertainment computing
- social impact of these technologies
- developments of the underlying infrastructure
- rationale in innovation and design processes
- dynamics of technology development
- ethical development
- cultural diversity and other cultural issues
- education of the public about the social and ethical implications of entertainment computing, and of computer professionals about the effects of their work.

WG 16.5 explicitly cares about the position of, and the potentials for, vulnerable groups such as children, the less-educated, disabled, elderly and non-employed people, cultural minorities, unaware users and others.

### **3.c. Other Activities Related to Entertainment Computing**

This SG is supporting the research activities in the area of entertainment computing. SG16 supports as well, the organisation of several international conferences/workshops on entertainment computing by co-sponsorships. Below are the conferences/workshops co-sponsored by SG16.

- (1) AGC-10 (10<sup>th</sup> Advances in Computer Games Conference) November 24-27, 2002 - Graz, Austria
- (2) ACE (International Conference on Advances in Computer Entertainment Technology), ACE2004: 3-5 June 2004 - Singapore
- (3) ACE2005: 15-17 June 2005 - Valencia, Spain
- (4) Design and Semantics of Form and Movement (DeSForM 2005): 11 December 2005-Newcastle upon Tyne, UK
- (5) ACE2006: 14-16 June 2006 - Hollywood, USA
- (6) Digitainment2005 (Digital Entertainment): 11 May 2005 - Leiden, The Netherlands
- (7) Mobility2005 (International Conference on Mobile technology, Applications and Systems): 15-17 November 2005 – Guangzhou, China
- (8) International Symposium on Intelligent Environment, April, 2005 - Cambridge, United Kingdom
- (9) Edutainment2006 (International Conference on E-learning and Digital Entertainment), April 16-19, 2006 - Hangzhou, China

## **4. Motivation**

Officers and members of the SG16 are unanimous in believing the group has been successful in connecting academic and industrial experts in the field of entertainment. The group has also managed to promote successfully the field of entertainment computing. The annual holding of the International Conference on Entertainment Computing is a very strong evidence of this.

### **4.a. Achievements**

Officers and members of the SG16 are unanimous in believing the group has been successful in connecting academic and industrial experts in the field of entertainment. The group has also managed to promote successfully the field of entertainment computing. The annual holding of the International Conference on Entertainment Computing is a very strong evidence of this.

Following are the summary of what we have achieved since the establishment of SG16:

- 1. Establishment of a leading international conference:** We have established an international conference called International Conference on Entertainment Computing (ICEC) as a major event of our SG. The conference is a pioneer in the field of EC and has been leading the research activities in this area. The conference started as a workshop and gradually extended the number of papers as well as attendees. Now it

constantly attracts more than 150 submitted papers and nearly 200 attendees. Following this conference, several number of similar conferences/symposiums/workshops have appeared as is described in the next section. This means that EC is a promising research area and ICEC is considered as a leading conference in this area.

2. **Establishment of working groups:** Since the establishment of SG16, we have started five working groups each of which corresponds to a key area in entertainment computing. All of the working group organize meetings regularly once or twice a year and discuss the strategy and the direction of the research activities. Almost all of them have organized symposiums/workshops and are going to make them regular. Some of the working groups have already expanded their activities to internationally big events. For example, WG16.2 (Entertainment Robot) regularly organize a huge event called RoboCup. RoboCup attract more than 10,000 visitors who come to the event to watch robot soccer matches as well as several hundred attendees.
3. **Promotion of activities related to entertainment computing:** To promote the research activities in this area, we have carried out the following activities:
  - a. To advertise the activities of SG16 we have prepared a new web page for SG16. The URL of the web page is <http://www.org.id.tue.nl/IFIP-SG16/index.html>
  - b. We have developed a mailing list for entertainment computing that include 700 researchers in this area. Through this mailing list we distribute information on conferences, symposiums, workshops, and events related to entertainment computing regularly. (The mailing list URL is: <http://listserver.tue.nl/mailman/listinfo/icec>)
  - c. We have co-sponsored several conferences/workshops related to entertainment computing. (The list of these conferences/workshops is in section 3.c.)

#### 4.b. Growth

Entertainment computing is one of the most rapidly expanding research areas. Recently many conferences/workshops related to entertainment computing have emerged. Below are the list of the conferences/workshops that are related to entertainment computing and that were organized recently or will be organized soon:

- Classic Gaming Expo 2005, 20-21 August 2005, San Francisco, CA, USA
- IE2005 – Australasian Conference on Interactive Entertainment, 23-25 November 2005, Sydney, NSW, Australia
- INTETAIN 2005 – Intelligent Technologies for Interactive Entertainment, 30 November – 2 December 2005, Madonna di Campiglio, Italy
- Digital Interactive Entertainment Conference, 2<sup>nd</sup> December 2005, Kyoto, Japan
- GDC-Game Development Conference, 20-24 March 2006, San Jose, CA, USA
- E<sup>3</sup> 2006 – Electronic Entertainment Expo 2006, 9-12 May 2006, Los Angeles Convention Centre, CA, USA
- EuroITV 2006 - European Interactive Television, 25-26 May 2006, Athens, Greece

- RoboCup 2006, 14-20 June 2006, Bremen, Germany
- Artificial Intelligence and Interactive Digital Entertainment, 20-23 June, 2006, Marina Del Rey, CA, USA
- International Conference on Digital Interactive Media Entertainment & Art 25-27 October, 2006, Bangkok, Thailand
- CGIE2006, Joint International Conference on CyberGames and Interactive Entertainment, 4-6 December 2006, Perth, WA, Australia

This clearly indicates that more and more attention is being focused on this new research area. At the same time, however, there is a concern that because of so many conferences/workshops organized in this area some of them compete each other, thus blocking the steady growth of the research activities in this area. This demonstrate how beneficial it would be to establish a Technical Committee within IFIP to watch the research activities in this area all over the world and to lead the academic society related to this area.

## ***5. Proposal for a Technical Committee on Entertainment Computing***

### **5.a. Title**

Technical Committee on Entertainment Computing

### **5.b. Aims**

To encourage the development of systems and applications in the area of Entertainment Computing. To enhance and improve computing usage with the aid of entertainment. To promote the use of Entertaining Information Technology at home, at work and on the move.

The technical committee will pursue the following aims:

- Promote and further research in algorithms of games
- Promote entertainment using information communication technology (ICT)
- Encourage and promote system development for entertainment
- Encourage and facilitate non-traditional and novel interface paradigms and technologies for entertainment

### **5.c. Scopes**

1. Games
  - Algorithms for games
  - Strategy for games
  - Level set-up for games
2. Entertainment using ICT
  - Networked entertainment
  - Mobile entertainment
  - Ubiquitous entertainment
  - Location-based entertainment
  - New entertainment applications
3. Media
  - Music informatics for entertainment
  - 3D audio for entertainment

- Sound effects for entertainment
4. Interface and Interaction
    - Haptics for entertainment
    - Novel interface technologies for entertainment
    - New modalities for entertainment
    - Mixed reality for entertainment
  5. Robots
    - ICT based toys
    - Pet, companion and personal robots
    - Entertainment robots
    - Robot behaviours
  6. Systems
    - Specifications and guidelines for entertainment systems
    - Design of entertainment systems
    - Toolkits for entertainment systems
    - Authoring systems
  7. Technology
    - Software technologies
    - Hardware technologies
    - Rendering technologies
    - ICT games toolkits
    - Motion capture and motion design
    - Interactive Media
    - Multiple view media
    - Digital characters
    - Digital personae
  8. Theoretical aspects of entertainment
    - Entertainment sociology
    - Entertainment psychology
    - Entertainment physiology
    - Ergonomics of entertainment
    - Ethical aspects of entertainment
    - Legal aspects of entertainment
    - Cultural and social aspects of entertainment
  9. Edutainment
    - Entertainment ICT for children education
    - Entertainment robotics for children education
    - Entertainment ICT and adult education
    - Entertainment ICT and training

## 5.d. Working Groups

We propose to keep the working group structure from SG16 and transfer it to the new TC

WG16.1 - Digital Story telling

WG16.2 – Entertainment Robots

WG16.3 – Theories of Entertainment

WG16.4 – Games and Entertainment Computing

WG16.5 – Social and Ethical Issues in Entertainment Computing

### **5.e. Officers**

We propose to appoint the SG16 officers as the officers of the new TC

#### **Chair:**

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### **5.f. Considerations on Overlaps**

#### **5.f.i. TC-3**

The proposed scope #9 may overlap with those of WG3.5 (Informatics in Elementary Education), because the aims of WG 3.5 include:

- to promote the development of ICT materials and equipment of recognized quality, and
- to enable ICT to make a beneficial contribution to children's learning and living.

The new TC will focus on applications of entertainment computing technologies to develop children's education materials.

#### **5.f.ii. TC-5**

The proposed scopes #2, #4 and #7 may overlap with those of WG 5.10 (computer graphics and virtual worlds), because the scopes of WG 5.10 include

- graphics modelling and rendering
- virtual reality
- animating virtual worlds, and
- artificial life in virtual worlds.

To avoid the overlap the new TC will focus its activities on applications of those technologies to entertainment. Generic technologies relevant to computer graphics, virtual reality and artificial life should be discussed in WG 5.10; however the applications of those technologies focused on video games, virtual reality games and digital actors/actresses should be handled by the new TC.



Furthermore, joint efforts with WG 5.10 in these areas should be strongly promoted.

#### **5.f.iii. TC-9**

The proposed aims and the proposed scope of the new TC might be implicitly included in those of WG 9.3 (Home-Oriented Informatics and Telematics) though they do not overlap with each other explicitly. It may be true that most entertainment computing technologies are utilized in the home, but the main interests of the new TC are directed to entertainment, not necessarily to the home.

The proposed scopes #2, #4 and, #8 may partially overlap with those of WG 9.5 (Applications and Social Implications of Virtual Worlds). According to the scope of WG 9.5 they will welcome case studies on and experiences with virtual reality systems, e.g. in entertainment. WG 9.5 is generally interested in applications of virtual reality technologies, and entertainment is only an area of such applications. On the other hand the new TC is interested in entertainment itself and virtual reality technologies are only one of its base technologies. WG 9.5 and the new TC are viewing overlapped technologies from a different angle. Joint efforts with WG 9.5 will be mutually beneficial.

#### **5.f.iv. TC-12**

The new TC may overlap partially with TC-12, because artificial intelligence (AI) is actually one of the base technologies for entertainment computing. The interests of the new TC in artificial intelligence will be restricted to applications of AI technologies to entertainment. TC-12 and the new TC will stand complementary with each other. The progress of AI will make entertainment more amusing and enjoyable, and the new TC will promote applicability of AI.

#### **5.f.v. TC-13**

The proposed scope #4 may overlap with that of TC-13. In the TC-13 scope they say that both general studies and specific studies on practical issues are important for progress. In this context the new TC will focus on specific studies of human-computer interaction only for entertainment. The new TC will provide practical knowledge of human-computer interaction for entertainment to TC-13, while general progress of human-computer interaction knowledge and technologies provided by TC-13 will improve entertainment computing human interface. Joint efforts will be important to both committees.

## **6. Conclusion**

In conclusion, the officers and members of the SG16 are unanimous in believing the group has been successful in connecting academic and industrial experts in the field of entertainment. Based on this we believe that the group has reached the stage of being upgraded to Technical Committee.

## ***7. Appendix***

**7.a. Proposal of technical committee on entertainment computing**

6pp

# PROPOSAL OF TECHNICAL COMMITTEE ON ENTERTAINMENT COMPUTING

Tak Kamae, ECTF Chair

## 1. Background and Motivation

The advancement of information and communication technologies (ICT) has been enabling broad use of ICT and facilitating use of ICT in the private sector. ICT related industries are directing their business targets to the home.

ICT applications in the home may be classified into the following two categories:

- a) Applications extended from the office
  - Text input, output, and editing
  - E-mail reading and writing
  - Web surfing
- b) Home centric applications
  - Entertainment use of ICT
  - Household and energy management
  - Educational use of ICT for children

Among these applications, entertainment will differentiate ICT applications in the private sector from the office. Comprehensive research and development on ICT applications to entertainment will be very important to promote ICT use in the home.

However research and development on entertainment has never been active in academic communities. On the other hand entertainment related industries such as video game industries have been growing rapidly in these 10 years. Entertainment robots are drawing attention of young people. The event called Robo Cup has been increasing the number of participants year by year.

To bring up this newly born area of ICT it is important to build a good relationship between academia and industries, and to set up a nucleus activity group. It was this motivation that the IFIP General Assembly approved of setting up the Entertainment Computing Task Force (ECTF) under the auspices of the IFIP Committee for Cooperation with Industries (CCI) in August, 2000.

## 2. ECTF Activities

First of all, the major efforts of ECTF activities were directed toward demonstrating that the subject could be mature enough to attract the broad interest of ICT community. For this purpose a technical event, the International Workshop on Entertainment Computing (IWEC), was planned and IWEC Steering Committee members were appointed as shown in Annex 1.

The first such opportunity came when IFIP TC-13 kindly offered the time slot for the panel on entertainment computing at the site of its INTERACT 2001 in Tokyo, Japan in July 2001. The IWEC Steering Committee decided to accept the kind offer to increase the presence of ECTF and IWEC. At the panel many participants showed interests in entertainment computing.

The IWEC Steering Committee decided the structure of the technical program committee, its chair as shown in Annex 1, and IWEC 2002 call for paper as shown in Annex 2.

IWEC 2002 was successfully held at Makuhari, Japan on May 14-17, 2002 and its interim report on IWEC 2002 is attached as Annex 1. The reason for "interim" report is that editing works of IWEC 2002 Proceedings are still in progress. IWEC 2002 attracted over 100 participants and over 60 papers. There were many high quality papers and several interesting technical demonstrations in IWEC 2002. These will be good evidences that entertainment computing is already an important technical area of ICT.

At the site of IWEC 2002 we had an extended ECTF meeting, whose meeting minutes were attached as Annex 3. At the meeting it was agreed unanimously that the formation of a new TC on Entertainment Computing should be proposed formally at the IFIP General Assembly/Technical Assembly in Montreal, and also it was pointed out that careful selection of the scope of this proposed TC would be important to avoid the overlap with those of existing TCs and that adjustments would be necessary with existing TCs before the formal proposal would be made in Montreal.

### 3. Proposal of a Technical Committee on Entertainment Computing

A new technical committee on entertainment computing is proposed in the following ways:

#### 3.1 Title

Entertainment Computing

#### 3.2 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 haptic and non-traditional human interface technologies for entertainment.

#### 3.3 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
  - 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
- (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

### 3.4 WGs under TC

- WG1: Entertainment Theory
- WG2: Entertainment Technologies

### 3.5 Candidate chair

Prof. Ryohei Nakatsu, Kwansei Gakuin University, Japan, who was the program chair of IWEC. A short biography of Prof. Nakatsu is attached in Annex 5.

## 4. Considerations on overlaps

The following considerations were made to avoid the overlap with existing TCs.

### 4.1 TC-3 (Education)

The proposed scope #10 (edutainment) may overlap with those of WG3.5 (Informatics in Elementary Education), because the aims of WG 3.5 include

- a) to promote the development of ICT materials and equipment of recognized quality, and
- b) to enable ICT to make a beneficial contribution to children's learning and living.

The new TC will restrict itself to applications of entertainment computing technologies to develop children's education materials.

### 4.2 TC-5 (Computer Applications in Technology)

The proposed scopes #2 (novel entertainment using ICT), #4 (entertainment human interface technologies) and #8 (video game and animation technologies) may overlap with those of WG 5.10 (computer graphics and virtual worlds), because the scopes of WG 5.10 include

- a) graphics modeling and rendering
- b) virtual reality
- c) animating virtual worlds, and
- d) artificial life in virtual worlds.

To avoid the overlap the new TC will restrict itself strictly to applications of those technologies to entertainment. Generic technologies relevant to computer graphics, virtual reality and artificial life should be discussed in WG 5.10; however the applications of those technologies focused on video games, virtual reality games and digital actors/actresses should be handled by the new TC. Anyway joint efforts with WG 5.10 in these areas should be promoted seriously.

### 4.3 TC-9 (Relationship between Computers and Society)

The proposed aims and the proposed scope of the new TC might be implicitly included in those of WG 9.3 (Home-Oriented Informatics and Telematics) though they do not overlap with each other explicitly. It may be true that most entertainment computing technologies are utilized in the home, but the main interests of the new TC are directed to entertainment, not necessarily to the home.

The proposed scopes #2 and #4 may partially overlap with those of WG 9.5 (Applications and Social Implications of Virtual Worlds). According to the scope of WG 9.5 they will welcome case studies on and experiences with virtual reality systems, e.g. in entertainment. WG 9.5 is generally interested in applications of virtual reality technologies, and entertainment is only an area of such applications. On the other hand the new TC is interested in entertainment itself and virtual reality technologies are only one of its base technologies. WG 9.5 and the new TC are viewing overlapped technologies from a different angle. Joint efforts with WG 9.5 will be necessary.

#### 4.4 TC-12 (Artificial Intelligence)

The new TC may overlap partially with TC-12, because artificial intelligence (AI) is actually one of the base technologies for entertainment computing. The interests of the new TC in artificial intelligence will be restricted to applications of AI technologies to entertainment. TC-12 and the new TC will stand complementary with each other. The progress of AI will make entertainment more amusing and enjoyable, and the new TC will promote applicability of AI.

#### 4.5 TC-13 (Human-Computer Interaction)

The proposed scope #4 may overlap with that of TC-13. In the TC-13 scope they say that both general studies and specific studies on practical issues are important for progress. In this context the new TC will focus on specific studies of human-computer interaction only for entertainment. The new TC will provide practical knowledge of human-computer interaction for entertainment to TC-13, while general progress of human-computer interaction knowledge and technologies provided by TC-13 will improve entertainment computing human interface. Joint efforts will be important to both committees.

### 5. Concluding Remarks

To form a new technical committee especially when it is an application oriented one, a certain level of overlaps with existing technology oriented TCs cannot be avoided; however such overlaps may give good opportunities of discussing similar technologies from different viewpoints, because such overlapped areas are intersections of technical areas viewed from different angles. Discussions on similar technologies from different viewpoints will stimulate the progress of such technologies.

The formation of the new TC on entertainment computing will demonstrate the positive attitude of IFIP toward newly developed area of ICT, and promote to expand the applications of ICT to non-traditional areas.

### 6. Annexes

Annex 1: Interim Report on International Workshop on Entertainment Computing (IWEC 2002)

Annex 2: IWEC 2002 Call for Paper

Annex 3: Minutes of the extended ECTF meeting

Annex 4: Discussion Items for extended ECTF meeting

Annex 5: Short Biography of Ryohei Nakatsu

**7.b. Report on IWEC 2002**  
4pp



## Annex 1

### Interim Report on International Workshop on Entertainment Computing (IWECC 2002)

#### 1. Background

IFIP General Assembly approved of setting up Entertainment Computing Task Force (ECTF) to study the feasibility of a new TC on Entertainment Computing in August, 2000 in Beijing, China., and IFIP Council appointed Tak Kamae to be the chair of ECTF in March, 2001 in Capri, Italy.

ECTF decided to organize International Workshop on Entertainment Computing (IWECC 2002) in the spring of 2002 in Japan under the sponsorship of IFIP.

#### 2. Outline of IWECC 2002

International Workshop on Entertainment Computing was held on May 14 through May 17, 2002 in Makuhari, Japan in the following ways.

##### 2.1 IWECC 2002 Date and Place

Date: Tuesday, May 14 to Friday, May 17, 2002

Place: Sharp Conference Hall in Sharp Makuhari Building

##### 2.2 Program Outline

Day 1 (Tuesday):

Afternoon	human-computer Othello match
Evening	reception

Day 2 (Wednesday):

Morning and afternoon	3 technical sessions in parallel
	1 invited speech
	technical demos in the lobby
Evening	joint meeting of ECTF and IWECC Steering Committee

Day 3 (Thursday):

Morning and afternoon	3 technical sessions in parallel
	1 invited speech
	technical demos in the lobby
Evening	workshop dinner a dinner speech

Day 4 (Friday):

Morning	3 technical sessions in parallel
	1 invited speech
	technical demos in the lobby

##### 2.3 Papers, Demos and Participants

IWECC 2002 Call for Papers is attached separately.

Papers accepted:

Foreign	27
Domestic	35

Demos

Foreign	5
Domestic	5

Participants

Foreign 37  
Domestic 82

Invited Speakers

Donald Marinelli (Carnegie-Mellon U.)  
Marc Cavazza (U. of Tesside)  
Masaya Matsuura (NanaOn-Sha)  
Masahiro Fujita (SONY) --- dinner speech

2.4 IWEC 2002 Steering Committee and Program Committee

IWEC Steering Committee:

General Chair	Tak Kamae	(LIST,Japan)
Program Chair	Ryohei Nakatsu	(Kwansei Gakuin U.)
Demo Chair	Hiro Iida	(Shizuoka U.)
Finance	Takaya Ishida	(Mitsubishi Electric)
Members	Jaap van den Herik	(Maastricht U.)
	Hitoshi Matsubara	(Hakadate Future U.)
	Junichi Hoshino	(Tsukuba U.)
	Masahiko Tsukamoto	(Osaka U.)
Secretariat	Osamu Ayukawa	(IPSJ)

IWEC Program Committee

Chair	Ryohei Nakatsu	(Kwansei Gakuin U.)
Computer and Games sub-committee	Jaap van den Herik	(Maastricht U.)
Home/Archade Games and Interactive Movies sub-committee	Junichi Hoshino	(Tsukuba U.)
Entertainment Robots and Physical Systems sub-committee	Hitoshi Matsubara	(Hakadate Future U.)
Music Informatics sub-committee	Masahiko Tsukamoto	(Osaka U.)
Sociology and Psychology for Entertainment sub-committee	Ryohei Nakatsu	(Kwansei Gakuin U.)

3. ECTF and IWEC Steering Committee (extended ECTF) meeting

The meeting minutes are separately attached. It was agreed unanimously that the formation of a new TC on Entertainment Computing should be proposed formally at IFIP Technical Assembly/General Assembly in Montreal. It was pointed out that careful wording of the aims, and careful selection of the scope of this new TC would be important to avoid the overlap with existing TCs and that adjustments would be necessary with existing TCs before the formal proposal would be made in Montreal. The meeting unanimously supported to hold an IWEC-like conference, whichever conference or symposium it will be called, regularly once every year.

4. Finance

Details will be reported in about 1 month from now, because editing works of IWEC 2002 Proceedings are still in progress.

The total income was \6,6267,000; total participation fee was 27x40,000(members)+26x45,000(non-members)+23x20,000(students)+11x45,000(on-site members)+10x50,000(on-

site non-members)+14x25,000(on-site students)+12,000(workshop note only), and grants were 2,000,000 from Japan Society for the Promotion of Science and 200,000 from Chiba Convention Bureau. The total expenses as of June 28, 2002 were \4,152,809; expenses for pre-workshop operation were 182,768, expenses for invited speakers were 1,430,000, for printing workshop notes and program 579,600, for demo programs 56,490, for reception, coffee and dinner 923,728, and for miscs 980,223.

5. Conclusion

IWEC was very successful, because the number of participants exceeded 100, out of which 37 came from abroad, and because there were many excellent papers presented. Discussions were very enthusiastic and also stimulating in almost all technical sessions. 3 invited speeches and a dinner speech were impressive and persuasive. Participants were very much impressed with them.

Now the work to edit IWEC Proceedings is in progress.

6. Acknowledgement

Special thanks are directed to Sharp Corporation for offering free use of Sharp Conference Hall and its front lobby for 4 days and NEC Corporation for offering free use of its Othello program called Logistello. The great success of IWEC 2002 depended much on these 2 companies.

**7.c. Minutes of the Extended ECTF Meeting held on 15<sup>th</sup>  
May 2002**  
4pp

## Annex 3

### MINUTES OF THE EXTENDED ECTF MEETING

TIME: 19:00-20:45, Wednesday, May 15, 2002

PLACE: 21<sup>st</sup> Floor of Sharp Makuhari Building

ATTENDANCE ( in no particular order) :

Tak Kamae (Chair, LIST, Japan)  
Marc Cavaza (University of Teesside)  
Matthias Rauterberg (Eindhoven University of Technology)  
Ryohei Nakatsu (Kwansei Gakuin University)  
Scott Fisher (Keio University)  
Hiroyuki Iida (University of Shizuoka)  
Jaap van den Herik (University of Maastricht)  
Gonzalo Frasca (Cartoon Network)  
Junuchi Hoshino (University of Tsukuba)  
Masahiko Tsukamoto (Osaka University)  
Hirokazu Kato (Hiroshima City University)  
Adrian Davit Cheok (National University of Singapore)  
Bruce H. Thomas (University of South Australia)  
Michael Buro (NEC Research Institute)  
Takaya Ishida (Mitsubishi Electric Corporation)  
David Ventura (Carnegie Mellon University)  
Donald Marinelli (Carnegie Mellon University)  
Sidney Fels (University of British Columbia)  
Michael Cohen (University of Aizu)  
Osamu Ayukawa (IWEC Secretary, IPSJ)  
Takayuki Yanagawa (IPSJ)

#### AGENDA AND RESOLUTIONS:

Tak Kamae, Chair of Entertainment Computing Task Force, welcomed the attendees and opened the meeting. Using “Discussion Items for extended ECTF meeting (attached as Annex 4), he sorted out discussion items and the meeting agreed to the agenda as follows:

1. Definition of Technical Areas
2. Proposal to IFIP
3. Future Plan of IWEC
4. Others (if any)

#### 1. Technical Areas

Chair requested the meeting to propose technical areas to be added to the five areas of the current Workshop. The following technical areas were listed up :

Board and card gaming  
Video gaming  
Network-based entertainment  
Mobile entertainment  
Location based entertainment  
Mixed reality entertainment  
Music informatics for entertainment  
3D audio for entertainment  
Haptic and non-traditional human interface technologies for entertainment  
Entertainment human interface  
Entertainment robot technologies  
Theoreticall aspects of entertainment  
Design of entertainment systems  
Legal aspects of entertainment systems

### Affective computing

The following comments were also made:

- 1) In order to avoid overlaps with existing activities elsewhere the target areas should not be too much expanded.
- 2) It is desirable to create novel areas.
- 3) The conference in Finland in June is focused on human, cultural and art aspects of computing and, thus, may have topics of our interest.
- 4) Topics relating to software applications should be enhanced.
- 5) IWEC may be substantially duplicated with Eurographics
- 6) The distinguished feature of IWEC is that the scope is horizontally segmented instead of vertically as is commonly adopted by other events.

### 2. Proposal on a New TC at IFIP Technical Assembly and General Assembly

At first Chair sought opinion of the meeting if entertainment computing was mature enough to attract interest of large number of scientists and engineers. An opinion was mentioned that Europe where IFIP had a rather strong hold had not much activity in computer games and thus might be reluctant to go into this area. It was pointed out that there were very few academic people specialized in this area even in Japan and that the good relationship between industries and academicisms had not been set up yet.

Even in academic communities, researchers are still hesitating to say that their special area is entertainment computing. Instead they tend to say, for example, that their special area is artificial intelligence, and that they are interested in entertainment computing as an application of the artificial intelligence.

On the other hand it was pointed out that once entertainment computing research community was established, a number of researchers would join the community and say that their research area was entertainment computing and that US and Asia were active enough to found an organizational activity(TC) in IFIP This opinion obtained the general agreement of the meeting.

Secondly Chair asked the meeting whether or not this August was an appropriate timing to make a proposal to set up a new TC(TC14) within IFIP. The meeting was affirmative to do so since this was what the Beijing GA decided and also it would be come too late if it was delayed for one more year. Considering the possible overlap with other existing TCs and WGs such as WG9.3 and TC13, it was suggested to make an adjustment with them such as a discussion to reorganize the current TC/WG structure.

Next Chair requested a proposal of a name of the new TC. After a discussion it was decided to select the present name, Entertainment Computing.

Then WG structure of the new TC was discussed. Some options included to start activity with one WG and to set up five WGs corresponding to the five areas of the IWEC of this year.

Finally it was decided to form the two WGs:

WG14.1 Entertainment Theory

WG14.2 Entertainment Technologies

The discussion moved on to select a candidate of TC Chair. Majority of the meeting agreed to nominate Ryohei Nakatsu, Program Chair of IWEC, as the TC Chair and he accepted this nomination. (Tak Kamae, General Chair of IWEC, declined the nomination because of his commitment to other position and probable lack of support by his company.)

### 3. Future IWEC

Secretary reported that there were over 100 registrants about one third of which were from outside Japan. This was recognized as a proof to show the international popularity of the subject and it was agreed to organize this series of workshop in the future according to the following rule:

Frequency: Annually

Time: To be decided by host organization

Place: Rotation in the order of Asia/pacific, North America and Europe

The plan for the next IWEC was discussed. There was an eager invitation from Singapore. It was pointed out that the participation from North America was important. Finally the next decision was made for IWEC2003:

General Chair: Ryohei Nakatsu with the support of Hiroyuki Iida, Masahiko Tsukamoto,

Junichi Hoshino and Jaap van den Herik

Place: US (Pittsburg, PA) as the first candidate and Singapore as the second  
The possibility for the US to host the next IWEC was decided to be asked to CMU during this IWEC period.

#### 4. Others

##### 4.1 Publication of Book

The effort to publish a book of this IWEC until today was reported. The meeting was asked whether or not to continue this effort on top of the existing Workshop Proceedings. It was confirmed to publish the book as far as a priority was given to maintain the quality of papers high.

Ryohei Nakatsu and Hiroyuki Iida were elected as editor and Jaan Van Den Herik as associate editor. The review of the publication schedule was entrusted to Nakatsu and Iida.

##### 4.2 Workshop at WCC2002

It was confirmed to organize a panel session at WCC2002 in Montreal in August. Nakatsu was elected as organizer who was requested to decide panel members during this IWEC period.

**7.d. Discussion Items for extended ECTF meeting**  
3pp



## Discussion Items for extended ECTF meeting

### 1. Current status

--- In August 2000 in Beijing IFIP (President: Plamen Nedkov) General Assembly (IFIP GA) approved of IPSJ (Information Processing Society of Japan) organizing Entertainment Computing Task Force (ECTF) under the auspices of IFIP CCI (Committee for Cooperation with Industries: chair J.A.N. Lee).

---In March,2001 in Capri, Italy IFIP Council approved Tak Kamae as the ECTF chair.

---Tak Kamae talked with Hitoshi Matsubara and Hiro Iida on the feasibility of IWEC, both of whom are major members of IPSJ Game Informatics Special Interest Group (chair: Hitoshi Matsubara). They promised with Tak Kamae to work together for IWEC. Tak Kamae asked Ryohei Nakatsu to be the IWEC program chair.

---IPSJ approved the proposal of Tak Kamae to plan IWEC in May, 2002 under Current Steering Committee.

---IWEC Steering Committee decided the date, location and technical areas of IWEC. The Committee was very much concerned about the finance of the Workshop, and Sharp Corporation was kind enough to offer the free use of its conference hall.

---As an attraction the Committee planned on the human-computer Othello match, and NEC generously offered its computer software of Othello game for IWEC attraction program.

---IWEC Steering Committee sponsored a panel discussion on entertainment computing at the site of INTERACT 2001 held in June, 2001 in Tokyo, which is a regularly held symposium sponsored by IFIP TC 13 (Human-Computer Interaction).

---IFIP GA will be held in Montreal in early September, 2002 and ECTF is requested to make some kind of proposal on the future of ECTF. Tak Kamae believes the proposal should be positive ( the formation of a new TC on entertainment computing) or negative (the negative termination of ECTF activities).

### 2. Discussions of Entertainment Computing

#### 2.1 Technical areas

As examples the followings can be listed up:

- legacy games using computers and artificial intelligence as their background technologies
- video games and computer graphics as their background technologies
- video game hardware technologies
- entertainment robot technologies
- human interface technologies for entertainment
- novel entertainment using computer technologies
- music informatics for entertainment
- sociology, psychology and physiology for entertainment

#### 2.2 Feasibility of entertainment computing

Does entertainment computing draw attention of enough number of academic researchers and industry engineers?

### 3. Feasibility of IFIP Technical Committee on Entertainment Computing

#### 3.1 Proposal on the formation of a new TC in early September, 2002

- timing good vs premature
- possible activities active enough to attract researchers and engineers globally
  - vs activities only in limited locations and/or in limited technical areas
  - vs difficult to be active
- academism: Is entertainment computing research actively done in academic communities?
- industries: Are entertainment computing industries grown up enough to support and take advantage of TC activities.
- active areas: Are technical areas discussed in item 2.1 wide enough and/or deep enough?

### 3.2 TC on Entertainment Computing

- naming
  - Is the name "entertainment computing" appropriate? If no what should be the name?
- activity areas
  - Do activity areas discussed at item 2.1 overlap badly with existing TC activities? If yes what should be technical areas of the new TC?
- WGs
  - What kinds of WGs are necessary from the very beginning?
- Symposium/Workshop
  - What kind of Symposium or Workshop will we organize as the first step? Should it be the symposium/workshop sponsored by TC? Or should each WGs organize their own workshop?
- Candidates for TC and WG executives

## 4. Future of IWEC

### 4.1 TC vs IWEC

Should IWEC be continued irrelevant to a new TC? Or should IWEC be planned at least for the next year because, after the decision of a new TC, it will be difficult to organize IWEC in late spring or early summer next year? Or should we leave such decisions to new executives of the new TCs irrelevant to whether the new TC will be approved or not?

### 4.2 2nd IWEC

If we should continue IWEC irrelevant to the new TC, who will organize 2nd IWEC and when? If so who will take the coordination with the new TC if it is approved?

## 5. Other discussions

**7.e. SG16: Entertainment Computing Report to General  
Assembly – Vilnius, 2003**

5pp

## SG16: Entertainment Computing

### **Report to General Assembly – Vilnius, 2003**

**Ryohei Nakatsu, SG16 Chair**

## **Part 1: General Assembly**

### **SG16 Entertainment Computing**

#### *Last Meeting*

Pittsburgh, May 8-10, 2003. Present: 5 members, Apologies: 2.

#### *Activities*

1. Major members of SG16 have contributed for the organisation of the International Workshop on Entertainment Computing (IWEC2002) that was held on May 14-17 in Makuhari, Japan (<http://www.graphic.esys.tsukuba.ac.jp/iwec2002/>). Although that was the first meeting of this kind, the workshop was very successful with more than 60 presentations and more than 100 attendees from all over the world. The success of this workshop led to the establishment of the new Specialist Group on Entertainment Computing. The proceedings of this workshop were published from Kluwer Academic Publishers.

2. Based on the success of IWEC2002, SG16 organised the ICEC2003 (International Conference on Entertainment Computing), that was held on May 8-10, at CMU, Pittsburgh USA (<http://www.etc.cmu.edu/icec2003/>). ICEC was also successful with more than 100 attendees and more than 20 papers. All of the papers for ICEC2003 have been accepted by ACM in New York City for inclusion in their online library and archive of research material in this field. Also publication is under discussion with Carnegie Mellon University Press..

3. During ICEC2003 the annual meeting of SG16 was held. At the meeting the future organisation of ICEC was discussed and it was decided that hereafter ICEC will be held annually with its conference site somewhere in North America, Europe, and Asia in turn.

4. To promote the activity in the area of Entertainment Computing, it has been decided at the meeting that SG16 would promote the establishment of academic society and/or research laboratories on Entertainment Computing all over the world. Already there is a laboratory called Entertainment Technology Center (ETC) at CMU. Recently in Japan a new research laboratory called Entertainment Computing Research Center was established where it is expected that joint research between

academia and industry will be carried out. SG16 will promote the research activities in these organisations as well as the collaboration between these organisations.

5. At the annual meeting of SG16, the establishment of working group was discussed and it was decided as first working groups of SG16, three working groups are to be established; WG16.1 (Digital Storytelling), WG16.2 (Entertainment Robots), and WG16.3 (Theoretical Basis of Entertainment).

6. As one of the activities of SG16, SG16 becomes a sponsor of the international conference on computer games, ACG-10 (10<sup>th</sup> Advances in Computer Games Conference), that will be held on November 24-27<sup>th</sup> at Graz, Austria (<http://www.cs.unimaas.nl/icga/acg10/>).

#### *Last SG16 Publications*

1. Ryohei Nakatsu and Junichi Hoshino ed., "Entertainment Computing," Kluwer Academic Publishers 2003.3 [Proceedings of the IWEC2002]

#### *SG16 Statistics and attendance*

See at the end of this report.

## **WG16.1 Digital Storytelling**

### *Scope*

Storytelling is one of the core technology of entertainment. Especially with the advancement of information and communication technologies (ICT), new type 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 need 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, Prof. Mac Cavazza was named as a chair of this working group. He is responsible for selecting a vice chair and other members of this WG16.1.

### *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 workshop, Prof. Hitoshi Matsubara was named as a chair of this working group. He is responsible for selecting a vice chair and other members of this WG16.2.

### *WG16.2 Activities*

As a first activity of this working group, WG 16.2 organised a domestic workshop on entertainment computing, Entertainment Computing 2003, on Jan. 13-15 at Osaka, Japan (<http://www.graphic.esys.tsukuba.ac.jp/ec2003/>). It has attracted more than 120 attendees and 30 papers. The proceedings were published from IPSJ (Information Processing Society of Japan).

### *Publications*

“Entertainment Computing,” IPSJ Symposium Series Vol. 2003, No.1.

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

### *Scope*

Although there are huge entertainment industries already such as video games, toys, movies, 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 workshop, Prof. Matthias Rauterberg was named as a chair of this workshop. He is responsible for selecting vice chair and other members of this WG16.3.

## **Part 2: Technical Assembly 2002 (Vilnius)**

### *The sponsorship of ICEC2004*

Based on the agreement at the annual meeting of SG16, ICEC is to be held annually with its site changing among North America, Europe, and Asia in turn. The next ICEC, ICEC2004, will be held in Barcelona in May, 2004. At the SG16 meeting, the sponsorship of ICEC2004 was also discussed. As ICEC is one of the major activities of SG16, it is crucial for SG16 to be a sponsor of ICEC. At the same time, however, it is important to have a close connection with academic societies such as ACM or IEEE if ICEC is expected to attract many active researchers and industrial people in this area. As recently within ACM the interest in the area of entertainment computing is growing and a journal dedicated on entertainment computing is to be published soon, several SG members insist that ICEC should have both IFIP and ACM as main sponsors.

## SG16 Members (2003)

Chairman

JP Ryohei Nakatsu

Vice-Chair

NL Matthias Rauterberg

Secretary

US Claudio Pinhanez

### *National Representatives*

NL Matthias Rauterberg

NL Jaap van den Herik

JP Tak Kamae

UK Marc Cavazza

USA Donaldo Marinelli

### *WG16.x Chair persons*

WG16.1 Marc Cavazza

WG16.2 Hitoshi Matsubara

WG16.3 Matthias Rauterberg

## SG16 Meetings: Attendance

<b>Nation/Year</b>	<b>02</b>	<b>03</b>
Netherlands	+	+
Netherlands	+	a
JP	+	+
UK	+	+
USA	+	+
WG16.1 Chair	+	+
WG16.2 Chair	+	a
WG16.3 Chair	+	+
	<b>02</b>	<b>03</b>

\* Resigned from TC — + representative attended — a apologies — r represented— o observer

**7.f. SG16: Entertainment Computing Report to General  
Assembly – Cape Town, South Africa, 2004**  
5pp



SG16: Entertainment Computing

## **Report to Council and Technical Assembly – Cape Town, South Africa, 2004**

**Ryohei Nakatsu, SG16 Chair**

### **Part 1: Council**

#### **SG16 Entertainment Computing**

##### **1. SG16 meetings held since last report**

Time: October 1-3, 2003

Place: Osaka, Japan

Present: 5 members, Apologies: 3.

##### **2. SG16 meetings scheduled until next IFIP GA meeting**

Time: August 22-27, 2004

Place: Toulouse, France

##### **3. WG meetings held since last report**

No meetings held

##### **4. Changes in Membership and Officers**

New member from

Canada: Dr. Sidney Fels (University of British Columbia)

China: Dr. Zhigeng Pan (Zhejiang University)

Ireland: Dr. Richard Reilly (University College, Dublin)

Korea: Dr. Hyun S Yang (Korea Advanced Institute of Science and Technology)

Singapore: Dr. Adrean David Cheok (National University of Singapore)

##### **5. SG16 Activities**

###### **5.1 Organization of ICEC2004**

At the last IFIP GA meeting, it was announced that the next ICEC, ICEC2004, would be held in Barcelona in May of 2003. Although several major members of SG16 tried to obtain support from universities and city of Barcelona, finally we had to judge that we could not get enough support to hold ICEC2003 at Barcelona. It meant we had to change the site of the conference. Based on the discussions among the members using on e-mail, Prof. Matthias Rauterberg, SG16 WG16.3 chair, decided to take the role of organizing ICEC2004. He negotiated with his university, Technical University of Eindhoven, and succeeded in obtaining the support from his university. Then we held extra SG16 meeting at Osaka on October 1-3 at the time of VRST (Symposium on Virtual Reality Software and Technology) had a discussion, and finally we have decided that ICEC2004 would be held on September 1-3, 2004 in

Eindhoven, Netherland. In spite of short time allotted to us until the date of ICEC2004, the organizing committee of the conference headed by Prof Matthias Rauterberg worked very hard for the conference organization job and now it is expected that the conference would attract more attendees than the previous conference.

### 5.2 Sponsorship of ICEC2004

At the SG16 meeting held in Montreal, the sponsorship of ICEC2004 was discussed. As ICEC is one of the major activities of SG16, it is crucial for SG16 to be a sponsor of ICEC. At the same time, however, it is important to have a close connection with academic societies such as ACM or IEEE if ICEC is expected to attract many active researchers and industrial people in this area. As recently within ACM the interest in the area of entertainment computing is growing, several SG members insisted that ICEC should have both IFIP and ACM as main sponsors. Based on this discussion, it was proposed at the last IFIP GA meeting that ICEC2004 would ask ACM as well as IFIP to become co-sponsor of the conference. As this proposal was accepted, we started the negotiation both with ACM and IFIP asking them to become co-sponsors of ICEC. The point of the discussion was which society would become a financial sponsor of ICEC2004. Through the discussion that took several months, finally it was decided that IFIP would become a main sponsor of ICEC2004 and is responsible for the finance of the conference. At the same time ACM SIGCHI and SIGGRAPH become co-sponsors of the conference.

### 5.3 Sponsorship of ACE

As one of the activities of SG16, SG16 became co-sponsor of International Conference on Advances in Computer Entertainment Technology (ACE) that will be held on June 3-5 in Singapore. There was a discussion among SG16 members that it is not so good for SG16 to become a sponsor for more than two conferences. They feared that ACE would be a rival to ICEC and supporting ACE would decrease the number of attendees of ICEC. We had a discussion with the ACE organizing members on this issue and our conclusion is that as entertainment computing is a very wide area it is difficult for one conference to cover the whole area of entertainment computing. In addition to this, we agreed on the point that it would be good to clarify the standpoints of the two conferences. The conclusion we have reached through our discussion is;

ICEC should focus on the theoretical and basic technological aspect of entertainment. On the other hand ACE should focus on the application and industrial aspect of entertainment.

### 5.3 Promotion of the research activities in the area of entertainment computing

Along with the organization of international conferences/workshops, it is important to promote the research activities in this area in many countries. As a first step toward this aim we have started our promotion activities in Japan. What we did is to organize a special issue on entertainment computing in various academic journals, proceedings and magazines. So far the following special issues have been and will be published. Special issue on "Entertainment Computing," Magazine of Information Processing Society of Japan, Vol.44, No.8 (2003.8). Special issue on "Entertainment and AI," Journal of the Japanese Society for Artificial Intelligence, Vol.19, No.1 (2004.1).

Special issue on “Virtual Reality and Entertainment,” Journal of Virtual Society of Japan, to appear

Activated by our activity, in several universities the movement toward the establishment of new departments or research laboratories focusing on entertainment computing is emerging. Several of this trend are;

Interactive Entertainment Laboratories at Waseda University (established in the winter of 2003)

Entertainment Computing Laboratory (established in the summer of 2003)

Entertainment Computing Research Center, Kwansai Gakuin University (planned)

## **WG16.1 Digital Storytelling**

### **1.Events scheduled in 2004**

#### **Workshop: Entertainment Computing 2004**

Place: Tokyo

Time: August, 2004

## **WG16.2 Entertainment Robot**

### *1. Events scheduled in 2004*

Exhibition: Robocup2004

Place: Osaka, Japan

Time: April, 2004

## **Part 2: Technical Assembly 2004 (Cape Town)**

### **SG16 Members (2004)**

Chairman

JP Ryohei Nakatsu

Vice-Chair

NL Matthias Rauterberg

Secretary

US Claudio Pinhanez

#### *National Representatives*

Canada Sidney Fels

China Zhigeng Pan

Ireland Richard Reilly

Japan Takahiko Kamae

Korea Hyun S. Yang

Netherlands Matthias Rauterberg

Netherlands Jaap van den Herik

Singapore Adrian David Cheok  
 United Kingdom Marc Cavazza  
 USA Donaldo Marinelli

*WG16.x Chair persons*

WG16.1 Marc Cavazza  
 WG16.2 Hitoshi Matsubara  
 WG16.3 Matthias Rauterberg

**SG16 Meetings: Attendance**

<b>Nation/Year</b>	<b>02</b>	<b>03/1</b>	<b>03/2</b>	<b>Total</b>
Canada	-	-	-	-
China	-	-	-	-
Ireland	-	-	-	-
Japan	+	+	+	3
Korea	-	-	-	-
Netherlands	+	+	+	3
Netherlands	+	a	a	1
Singapore	-	-	-	-
United Kingdom	+	+	+	3
USA	+	a	a	1
WG16.1 Chair	+	+	+	3
WG16.2 Chair	+	a	a	1
WG16.3 Chair	+	+	+	3
	<b>02</b>	<b>03/1</b>	<b>03/2</b>	

\* Resigned from TC — + representative attended — a apologies — r represented— o observer

**7.g. SG16: Entertainment Computing Report to General  
Assembly – Toulouse, France, 2004**  
5pp

**SG16: Entertainment Computing**  
**Report to General Assembly – Toulouse, France,**  
**2004**

**Ryohei Nakatsu, SG16 Chair**

## **Part 1: General Assembly**

### **SG16 Entertainment Computing**

#### **1. SG16 meetings held since last report**

No meetings held

#### **2. SG16 meetings scheduled until next IFIP GA meeting**

Time: September 1-3, 2004

Place: Eindhoven, Netherlands

#### **3. WG meetings held since last report**

No meetings held

#### **4. Changes in Membership and Officers**

I have asked all the IFIP national representatives to nominate a national representative for SG16. I have received many responses from them and so far the below members have been fixed.

Bulgaria	Galia Angelova	(Prof. )
Canada	Sidney Fels	(Prof., University of British Columbia)
China	Zhigeng Pan	(Prof., Zhejiang University)
Denmark	to be nominated	
Finland	Jussi Holopainen	(Mr., Nokia Research Center)
France	Bruno Alnandi	(IRISA)
Germany	to be nominated	
Ireland	Richard Reilly	(Lecturer, University College of Dublin)
Italy	Paolo Ciancarini	(Prof., University of Bologna)
Japan	Takehiko Kamae	(Dr., National Institute of Infomatics)
Korea	Hyun S. Yang	(Prof., KAIST)
Netherlands Eindhoven)	Matthias Rauterberg	(Prof., Technical University of
Norway	Geir Egil Myhre	(Dr., University of Troms)
Singapore	Adrian David Cheok	(Prof., National university of Singapore)
Thailand	Natanicha Chorpothong	(Dr., Internet Association)
United Kingdom	Marc Cavazza	(Prof., University of Teesside)
USA	Donald Marinelli	(Prof., CMU)

#### **5. SG16 Activities**

##### **5.1 Organization of ICEC2004**

As was reported at the GA meeting last year, the next ICEC, ICEC2004, was to be held in Barcelona in May of 2004. As we could not obtain enough support from

universities and city of Barcelona, however, we had to change the site of the conference. After a long time discussion we held an extra SG16 meeting at Osaka on October 1-3, 2003 at the time of VRST (Symposium on Virtual Reality Software and Technology), and finally we decided that ICEC2004 would be held on September 1-3, 2004 in Eindhoven, Netherland. In spite of short time allotted to us until the date of ICEC2004, the organizing committee of the conference headed by Prof. Matthias Rauterberg of Technical University of Eindhoven worked very hard for the conference organization job and now it is expected that the conference would attract more attendees than the previous conference. (URL of ICEC2004: <http://www.industrialdesign.tue.nl/conference/icec2004/>)

## 5.2 ACE

As one of the activities of SG16, SG16 became co-sponsor of International Conference on Advances in Computer Entertainment Technology (ACE) that was held on June 3-5 in Singapore. (URL of ACE: <http://www.ace2004.org/>)

## 5.3 Promotion of the research activities in the area of entertainment computing

Along with the organization of international conferences/workshops, it is important to promote the research activities in this area in many countries. As a first step toward this aim we have started our promotion activities in Japan. Last year we organized special issues on entertainment computing in various academic journals, proceedings and magazines as listed below.

Special issue on "Entertainment Computing," Magazine of Information Processing Society of Japan, Vol.44, No.8 (2003.8).

Special issue on "Entertainment and AI," Journal of the Japanese Society for Artificial Intelligence, Vol.19, No.1 (2004.1).

Special issue on "Virtual Reality and Entertainment," Journal of Virtual Society of Japan, to appear

Activated by our activity, in several universities the movement toward the establishment of new departments or research laboratories focusing on entertainment computing is emerging. Several of this trend are;

Interactive Entertainment Laboratories at Waseda University (established in the winter of 2003)

Entertainment Computing Laboratory (established in the summer of 2003)

Entertainment Computing Research Center, Kwansai Gakuin University (established in July, 2004)

## **WG16.1 Digital Storytelling**

### **1.Members**

Prof. Cavazza, chair of WG16.1, is now recruiting members of WG16.1. So far the following persons have been selected as core members of WG16.1.

Michael Young, North Carolina State University, USA

Ana Paiva, INSEC, Lisbon, Portugal

Stephane Natkin, CNAM, France

### **2. Events**

Workshop: Entertainment Computing 2004 (will be held in cooperation with WG16.2)

Place: Hokkaido, Japan  
Time: August 20-22, 2004

## **WG16.2 Entertainment Robot**

### *1. Meetings*

First meeting of WG16.2 was held in Osaka, Japan in April of 2004 in Osaka, Japan.

### **2. Events**

Exhibition: Robocup Japan 2004

Place: Osaka, Japan

Time: April, 2004

Workshop: Entertainment Computing 2004 (will be held in cooperation with WG16.1)

Place: Hokkaido, Japan

Time: August 20-22, 2004

### **3. Activities**

WG16.2 is supporting Robocup as entertainment robot is one of key themes of it. International Robocup will be held in Osaka in June of 2005 where Prof. Matsubara, chair of WG16.2, will act as a general chair. As a pre-event for this international event, Robocup Japan 2004 was held in April of 2004 as described above.

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

### **1. Meetings**

First meeting of WG16.3 will be held in Eindhoven, Netherlands on Sept. 1-3, at the time of ICEC2004.

### **2. Members**

Prof. Rauterberg, chair of WG16.3 is now recruiting new members of WG16.3 and the new members of WG16.3 will be fixed by the first WG meeting.

## **Part 2: Technical Assembly 2004 (Toulouse)**

### **SG16 Members (2004)**

Chairman

Japan                      Ryohei Nakatsu

Vice-Chair

Netherlands              Matthias Rauterberg

Secretary

USA                         Claudio Pinhanez



### National Representatives

Bulgaria	Galia Angelova (Prof. )
Canada	Sidney Fels (Prof., University of British Columbia)
China	Zhigeng Pan (Prof., Zhejiang University)
Denmark	to be nominated
Finland	Jussi Holopainen (Mr., Nokia Research Center)
France	Bruno Alnandi (IRISA)
Germany	to be nominated
Ireland	Richard Reilly (Lecturer, University College of Dublin)
Italy	Paolo Ciancarini (Prof., University of Bologna)
Japan	Takehiko Kamae (Dr., National Institute of Inofomatics)
Korea	Hyun S. Yang (Prof., KAIST)
Netherlands	Matthias Rauterberg (Prof., Technical University of Eindhoven)
Norway	Geir Egil Myhr (Dr., University of Troms)
Singapore	Adrian David Cheok (Prof., National University of Singapore)
Thailand	Natanicha Chorpothong (Dr., Internet Association)
United Kingdom	Marc Cavazza (Prof., University of Teesside)
USA	Donald Marinelli (Prof., CMU)

### WG16.x Chair persons

WG16.1	Marc Cavazza
WG16.2	Hitoshi Matsubara
WG16.3	Matthias Rauterberg

### SG16 Meetings: Attendance

Nation/Year	02	03/1	03/2	Total
Bulgaria	-	-	-	-
Canada	-	-	-	-
China	-	-	-	-
Denmark	-	-	-	-
Finland	-	-	-	-
France	-	-	-	-
Germany	-	-	-	-
Ireland	-	-	-	-
Italy	-	-	-	-
Japan	+	+	+	3
Korea	-	-	-	-
Netherlands	+	+	+	3
Norway	-	-	-	-
Singapore	-	-	-	-
Thailand	-	-	-	-
United Kingdom	+	+	+	3
USA	+	a	a	1
WG16.1 Chair	+	+	+	3
WG16.2 Chair	+	a	a	1
WG16.3 Chair	+	+	+	3
	<b>02</b>	<b>03/1</b>	<b>03/2</b>	

\* Resigned from TC — + representative attended — a apologies — r represented— o observer

**7.h. SG16: Entertainment Computing Report to  
Technical Assembly and Council, Pohang, Korea,  
February-March 2005**

8pp

SG16: Entertainment Computing

## **Report to Technical Assembly and Council Pohang, Korea, February-March 2005**

**Ryohei Nakatsu, SG16 Chair**

### **Part 1: Report to Technical Assembly**

#### **SG16 Entertainment Computing**

##### **1. SG16 meetings held since last report for General Assembly 2004 in Toulouse**

Time: September 1-3, 2004

Place: Eindhoven, Netherlands

##### **2. SG16 meetings scheduled until next IFIP General Assembly**

Time: June 15-17, 2005

Place: Valencia, Spain

##### **3. Changes in Membership and Officers**

(a) Ville-Veikko Mattila took place Jussi Holopainen as the representative for Finland.

##### **4. SG16 Activities**

###### **4.1 Organization of ICEC2005**

As was reported at the GA meeting last year, the next ICEC, ICEC2005, is to be held in Sanda, Japan on September 19-21, 2005. As ICEC is one of the major activities of SG16, SG16 supports the conference as a major sponsor. Also IPSJ (Information Processing Society of Japan) supports the conference as a co-sponsor. (URL of ICEC2005: <http://ist.ksc.kwansei.ac.jp/icec2005/>)

###### **4.2 ACE**

As one of the activities of SG16, SG16 became co-sponsor of International Conference on Advances in Computer Entertainment Technology (ACE) that will be held on June 15-17 in Valencia, Spain. (URL of ACE: <http://www.ace2005.org/>)

#### **Working Groups**

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

###### **(a) Meetings**

WG16.2 meeting was held in Eindhoven, Netherlands on Sept. 1-3, 2004 at the time of ICEC2004.

Next WG16.3 meeting will be held in Valencia, Spain on June 15-17, 2005 at the time of ACE2005.

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

### ***(a) Meetings***

WG16.2 meeting was held in Eindhoven, Netherlands on Sept. 1-3, 2004 at the time of ICEC2004.

Next WG16.2 meeting will be held in Osaka, Japan on June 13-19, 2005 during Robocup2005.

### **(b) Events**

Exhibition: RoboCup 2005

Place: Osaka, Japan

Time: June 13-19, 2005

<http://www.robocup2005.jp/gaiyou/index.html>

### **(c) Activities**

WG16.2 is supporting Robocup as entertainment robot is one of key themes of it. International Robocup will be held in Osaka in June of 2005 where Prof. Matsubara, chair of WG16.2, will act as a general chair.

## **3. WG16.3 Theoretical Foundation of Entertainment Computing**

### **(a) Meetings**

WG16.3 meeting was held in Eindhoven, Netherlands on Sept. 1-3, 2004 at the time of ICEC2004.

Next WG16.3 will be held in Leiden, Netherlands on May 11, 2005.

### **(b) Events**

the Dutch Symposium on Digitainment 2005, on May 11, 2005 in Leiden, Netherlands

<http://www.digitainment2005.nl/secretaris@snic.nl>

Design and Semantics of Form and Movement, on Nov. 11, 2005 in Newcastle upon Tyne, UK

## **4. New Working Groups**

At the last SG16 meeting in Eindhoven, Netherlands, the establishment of the following two working groups was proposed and was approved among SG16 members.

WG16.4 Games and Entertainment Computing

Chair: Jaap van den Herik (Prof., University of Maastricht, Netherlands)

WG16.5 Social and Ethical Issues in Entertainment Computing

Chair: Andy Sloane (Prof., University of Wolverhampton, UK)

The proposals for these working groups including their aims and scopes are shown in Appendix 1 and Appendix 2 respectively.

## **Part 2: Council**

### **SG16 Members (2005)**

Chairman  
 Japan Ryohei Nakatsu  
 Vice-Chair  
 Netherlands Matthias Rauterberg  
 Secretary  
 USA Claudio Pinhanez

*National Representatives*

Bulgaria Galia Angelova (Prof. )  
 Canada Sidney Fels (Prof., University of British Columbia)  
 China Zhigeng Pan (Prof., Zhejiang University)  
 Denmark to be nominated  
 Finland Ville-Veikko Mattila (Dr., Nokia Research Center)  
 France Bruno Alnandi (IRISA)  
 Germany to be nominated  
 Ireland Richard Reilly (Lecturer, University College of Dublin)  
 Italy Paolo Ciancarini (Prof., University of Bologna)  
 Japan Takehiko Kamae (Dr., National Institute of Infomatics)  
 Korea Hyun S. Yang (Prof., KAIST)  
 Netherlands Matthias Rauterberg (Prof., Technical University of Eindhoven)  
 Norway Geir Egil Myhr (Dr., University of Troms)  
 Singapore Adrian David Cheok (Prof., National University of Singapore)  
 Thailand Natanicha Chorpothong (Dr., Internet Association)  
 United Kingdom Marc Cavazza (Prof., University of Teesside)  
 USA Donald Marinelli (Prof., CMU)

*WG16.x Chair persons*

WG16.1 Marc Cavazza  
 WG16.2 Hitoshi Matsubara  
 WG16.3 Matthias Rauterberg  
 (WG16.4 Jaap van den Herik)  
 (WG16.5 Andy Sloane)

**SG16 Meetings: Attendance**

<b>Nation/Year</b>	<b>02</b>	<b>03/1</b>	<b>03/2</b>	<b>04/1</b>	<b>Total</b>
Bulgaria	-	-	-	a	-
Canada	-	-	-	a	-
China	-	-	-	a	-
Denmark	-	-	-	-	-
Finland	-	-	-	+	1
France	-	-	-	+	1
Germany	-	-	-	-	-
Ireland	-	-	-	a	-
Italy	-	-	-	+	1
Japan	+	+	+	+	4
Korea	-	-	-	+	1
Netherlands	+	+	+	+	4
Norway	-	-	-	+	1
Singapore	-	-	-	+	1
Thailand	-	-	-	a	-
United Kingdom	+	+	+	+	4
USA	+	a	a	+	2

WG16.1 Chair	+	+	+	+	4
WG16.2 Chair	+	a	a	+	2
WG16.3 Chair	+	+	+	+	4
	<b>02</b>	<b>03/1</b>	<b>03/2</b>	<b>04/1</b>	<b>Total</b>

— + representative attended — a apologies — r represented— o observer

## Appendix 1

### WG 16.4 Games and Entertainment Computing

#### Proposal

#### *Aim*

To research and develop computing techniques for the improvement of computer games and other forms of computer entertainment.

#### *Scope*

The scope of this workgroup includes, but is not limited to the following applications, technologies, and activities.

#### Applications:

- Analytical games (e.g, Chess, Go, Poker)
- Commercial games (e.g., Action games, Roleplaying games, Strategy games)
- Mobile games (e.g., Mobile phones, PDA's)
- Interactive multimedia (e.g., Virtual reality, Simulations)

#### Technologies:

- Search Techniques
- Machine Learning
- Reasoning
- Agent Technology
- Human-Computer Interaction

#### Activities:

- The workgroup will hold meetings at several conferences where Games and Entertainment Computing are prevalent, such as the ICEC.
- The workgroup will promote computer games as a viable and challenging area of research in state-of-the-art computing techniques, for instance by organising special events at conferences.
- The workgroup members will engage in research activities in the aforementioned areas.

#### *Members*

Chair: Jaap van den Herik (Prof., University of Maastricht, Netherlands)

Other members are being recruited now.

## Appendix 2

### *WG 16.5 Social and Ethical Issues in Entertainment Computing*

#### Proposal

#### Aims

- 1) Foster the ethical design, development, implementation, applications and use of entertainment computing.
- 2) Encourage surveys and studies on social, ethical and cultural aspects of entertainment computing.
- 3) Develop methodologies for studying social, ethical and cultural implications of entertainment computing.
- 4) Establish a global platform for interaction, exchange, joint initiatives and co-operation between such groups as:
  - the end users of entertainment computing
  - industrial developers and designers of entertainment computing
  - policy, decision making, social and consultative bodies
  - academics and scientists.

#### Scope

The social and ethical implications of entertainment computing including:

- actual and potential human usefulness or harm of entertainment computing
- social impact of these technologies
- developments of the underlying infrastructure
- rationale in innovation and design processes
- dynamics of technology development
- ethical development
- cultural diversity and other cultural issues
- education of the public about the social and ethical implications of entertainment computing, and of computer professionals about the effects of their work.

WG 16.5 explicitly cares about the position of, and the potentials for, vulnerable groups such as children, the less-educated, disabled, elderly and non-employed people, cultural minorities, unaware users and others.

## ***Members***

Chair: Andy Sloane (UK)

Ryohei Nakatsu (JP)

Brad Bushman (US)

Jeanne Funk (US)

Claire Dormann (CA)

Lynne Baillie(AT)

Porfirio Barroso (ES)

Suzana Stojakovic-Celustka (HR)

Chris Zielinski (CH)



**7.i. SG16: Entertainment Computing Report to General  
Assembly – Gaborone, Botswana, 2005**  
9pp

## SG16: Entertainment Computing

# **Report to General Assembly – Gaborone, Botswana, 2005**

**Ryohei Nakatsu, SG16 Chair**

## **Part 1: General Assembly**

### **SG16 Entertainment Computing**

#### **1. SG16 meetings held since last report**

No meetings held

#### **2. SG16 meetings scheduled until next IFIP GA meeting**

Time: September 19-21, 2005

Place: Sanda, Japan

#### **3. Changes in Membership and Officers**

(a) Pedro Gonzalez Calero joined SG16 as the representative for Spain

(b) The present SG members are shown below

Bulgaria	Galia Angelova	(Prof., Burgalian Academy of Sciences)
Canada	Sidney Fels	(Prof., University of British Columbia)
China	Zhigeng Pan	(Prof., Zhejiang University)
Denmark	(to be nominated)	
Finland	Ville-Veikko Mattila	(Dr., Nokia Research Center)
France	Bruno Alnandi	(IRISA)
Germany	(to be nominated)	
Ireland	Richard Reilly	(Lecturer, University College of Dublin)
Italy	Paolo Ciancarini	(Prof., University of Bologna)
Japan	Takehiko Kamae	(Dr., National Institute of Infomatics)
Korea	Hyun S. Yang	(Prof., KAIST)
Netherlands Eindhoven)	Matthias Rauterberg	(Prof., Technical University of
Norway	Geir Egil Myhre	(Dr., University of Troms)
Singapore	Adrian David Cheok	(Prof., National University of Singapore)
Spain Madrid)	Pedro Gonzalez Calero	(Prof., Complutense University of
Thailand	Natanicha Chorpothong	(Dr., Assumption University)
United Kingdom	Marc Cavazza	(Prof., University of Teesside)

## 4. SG16 Activities

### 4.1 Organization of ICEC2005

The next ICEC, ICEC2005, is to be held in Sanda, Japan on September 19-21, 2005. As ICEC is one of the major activities of SG16, SG16 supports the conference as a major sponsor. Also IPSJ (Information Processing Society of Japan) supports the conference as a co-sponsor. (URL of ICEC2005: <http://ist.ksc.kwansei.ac.jp/icec2005/>)

### 4.2 Related events of ICEC2005

To lead ICEC2005 into success, we will organize several workshops in conjunction with ICEC2005.

#### 4.2.1 Entertainment Computing 2005 (EC2005)

EC2005 is a domestic workshop on Entertainment Computing. Its main purpose is to activate the research activities of young researchers/students in this area and also to strengthen the relationship between academia and industry. The first EC workshop was held in 2003 in Osaka, Japan. This year, the third EC workshop will be held just before ICEC2005 on Sept 16-19 in Sanda, Japan. Although the workshop is mainly for Japanese attendees, several key members of the SG16 will join the workshop as keynote speakers. Also several joint events such as Wearable Fashion Show will be held in cooperation with ICEC2005. (URL of EC2005: <http://www.entcomp.org/ec2005/>)

#### 4.2.2 International Ubiquitous Home Workshop

After ICEC2005, International Ubiquitous Home Workshop will be held on Sept. 22-23, 2005 in Kyoto, Japan. The theme of the workshop is "Ubiquitous Society and Entertainment" Although ICEC focuses mainly on entertainment technologies, it is well known that entertainment is strongly related to our life, society, art, and culture. Therefore we want to make this workshop an interdisciplinary one including keynote speech, panel discussions and presentations from areas such as sociology, psychology, philosophy, and so on. (URL of International Ubiquitous Home Workshop : [http://www2.nict.go.jp/jt/a135/resource/ubiquitous\\_ws2/call.html](http://www2.nict.go.jp/jt/a135/resource/ubiquitous_ws2/call.html))

### 4.3 ACE

As one of the activities of SG16, SG16 became co-sponsor of International Conference on Advances in Computer Entertainment Technology (ACE) that was held on June 15-17 in Valencia Spain. (URL of ACE: <http://www.ace2005.org/>)

## Working Groups

### 1. WG16.1 Digital Storytelling

#### (a) Meetings

WG16.1 meeting was held in Valencia, Spain on July 15-17, 2005 at the time of ACE2005.

Next WG16.1 meeting will be held in Sanda, Japan on Sept. 19-21, 2005 at the time of ICEC2005.

(b) Events

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

### ***(a) Meetings***

WG16.2 meeting was held in Osaka, Japan on June 13-19, 2005 at the time of Robocup2005.

Next WG16.2 meeting will be held in Sanda, Japan on Sept. 19-21, 2005 during ICEC2005.

(b) Events

Exhibition: RoboCup 2005

Place: Osaka, Japan

Time: June 13-19, 2005

<http://www.robocup2005.jp/gaiyou/index.html>

(c) Activities

WG16.2 supports Robocup as entertainment robot is one of key themes of it. International Robocup was held in Osaka in June of 2005 where Prof. Matsubara, chair of WG16.2, acted as a general chair.

## **3. WG16.3 Theoretical Foundation of Entertainment Computing**

(a) Meetings

WG16.3 was held in Leiden, Netherlands on May 11, 2005. Next WG16.3 meeting will be held in Sanda, Japan on Sept. 19-21, 2005 at the time of ICEC2005.

(b) Events

the Dutch Symposium on Digitainment 2005, on May 11, 2005 in Leiden, Netherlands

<http://www.digitainment2005.nl/secretaris@snic.nl>

Design and Semantics of Form and Movement, on Nov. 11, 2005 in Newcastle upon Tyne, UK

## **4. New Working Groups**

At the last SG16 meeting in Eindhoven, Netherlands, the establishment of the following two working groups was proposed and was approved among SG16 members.

WG16.4 Games and Entertainment Computing

Chair: Jaap van den Herik (Prof., University of Maastricht, Netherlands)

WG16.5 Social and Ethical Issues in Entertainment Computing

Chair: Andy Sloane (Prof., University of Wolverhampton, UK)

The proposals for these working groups including their aims and scopes are shown in Appendix 1 and Appendix 2 respectively.

## Part 2: Technical Assembly 2005 (Gaborone)

### SG16 Members (2004)

Chairman

Japan Ryohei Nakatsu

Vice-Chair

Netherlands Matthias Rauterberg

Secretary

USA Claudio Pinhanez

#### *National Representatives*

Bulgaria Galia Angelova (Prof. )  
 Canada Sidney Fels (Prof., University of British Columbia)  
 China Zhigeng Pan (Prof., Zhejiang University)  
 Denmark to be nominated  
 Finland Ville-Veikko Mattila (Dr., Nokia Research Center)  
 France Bruno Alnandi (IRISA)  
 Germany to be nominated  
 Ireland Richard Reilly (Lecturer, University College of Dublin)  
 Italy Paolo Ciancarini (Prof., University of Bologna)  
 Japan Takehiko Kamae (Dr., National Institute of Infomatics)  
 Korea Hyun S. Yang (Prof., KAIST)  
 Netherlands Matthias Rauterberg (Prof., Technical University of Eindhoven)  
 Norway Geir Egil Myhr (Dr., University of Troms)  
 Singapore Adrian David Cheok (Prof., National University of Singapore)  
 Spain Pedro Gonzalez Calero (Prof., Complutense University of Madrid)  
 Thailand Natanicha Chorpothong (Dr., Internet Association)  
 United Kingdom Marc Cavazza (Prof., University of Teesside)  
 USA Donald Marinelli (Prof., CMU)

#### *WG16.x Chair persons*

WG16.1 Marc Cavazza  
 WG16.2 Hitoshi Matsubara  
 WG16.3 Matthias Rauterberg  
 (WG16.4 Jaap van den Herik)  
 (WG16.5 Andy Sloane)

#### **SG16 Meetings: Attendance**

Nation/Year	02	03/1	03/2	04/1	Total
Bulgaria	-	-	-	a	-
Canada	-	-	-	a	-
China	-	-	-	a	-
Denmark	-	-	-	-	-

Finland	-	-	-	+	1
France	-	-	-	+	1
Germany	-	-	-	-	-
Ireland	-	-	-	a	-
Italy	-	-	-	+	1
Japan	+	+	+	+	4
Korea	-	-	-	+	1
Netherlands	+	+	+	+	4
Norway	-	-	-	+	1
Singapore	-	-	-	+	1
Spain	-	-	-	-	-
Thailand	-	-	-	a	-
United Kingdom	+	+	+	+	4
USA	+	a	a	+	2
WG16.1 Chair	+	+	+	+	4
WG16.2 Chair	+	a	a	+	2
WG16.3 Chair	+	+	+	+	4
	<b>02</b>	<b>03/1</b>	<b>03/2</b>	<b>04/1</b>	<b>Total</b>

— + representative attended — a apologies — r represented— o observer

## Appendix 1

### WG 16.4 Games and Entertainment Computing

#### Proposal

##### *Aim*

To research and develop computing techniques for the improvement of computer games and other forms of computer entertainment.

##### *Scope*

The scope of this workgroup includes, but is not limited to the following applications, technologies, and activities.

##### Applications:

- Analytical games (e.g, Chess, Go, Poker)
- Commercial games (e.g., Action games, Roleplaying games, Strategy games)
- Mobile games (e.g., Mobile phones, PDA's)
- Interactive multimedia (e.g., Virtual reality, Simulations)

##### Technologies:

- Search Techniques
- Machine Learning
- Reasoning
- Agent Technology
- Human-Computer Interaction

#### Activities:

- The workgroup will hold meetings at several conferences where Games and Entertainment Computing are prevalent, such as the ICEC.
- The workgroup will promote computer games as a viable and challenging area of research in state-of-the-art computing techniques, for instance by organising special events at conferences.
- The workgroup members will engage in research activities in the aforementioned areas.

#### ***Members***

Chair: Jaap van den Herik (Prof., University of Maastricht, Netherlands)

Other members are being recruited now.

## **Appendix 2**

### *WG 16.5 Social and Ethical Issues in Entertainment Computing*

#### Proposal

#### Aims

- 1) Foster the ethical design, development, implementation, applications and use of entertainment computing.
- 2) Encourage surveys and studies on social, ethical and cultural aspects of entertainment computing.
- 3) Develop methodologies for studying social, ethical and cultural implications of entertainment computing.
- 4) Establish a global platform for interaction, exchange, joint initiatives and co-operation between such groups as:
  - the end users of entertainment computing
  - industrial developers and designers of entertainment computing
  - policy, decision making, social and consultative bodies
  - academics and scientists.

#### Scope

The social and ethical implications of entertainment computing including:

- actual and potential human usefulness or harm of entertainment computing
- social impact of these technologies

- developments of the underlying infrastructure
- rationale in innovation and design processes
- dynamics of technology development
- ethical development
- cultural diversity and other cultural issues
- education of the public about the social and ethical implications of entertainment computing, and of computer professionals about the effects of their work.

WG 16.5 explicitly cares about the position of, and the potentials for, vulnerable groups such as children, the less-educated, disabled, elderly and non-employed people, cultural minorities, unaware users and others.

### ***Members***

Chair: Andy Sloane (UK)

Ryohei Nakatsu (JP)

Brad Bushman (US)

Jeanne Funk (US)

Claire Dormann (CA)

Lynne Baillie(AT)

Porfirio Barroso (ES)

Suzana Stojakovic-Celustka (HR)

Chris Zielinski (CH)



**7.j. SG16: Entertainment Computing Report to Council  
and Technical Assembly, Palma de Mallorca, Spain,  
March 4-5, 2005**  
9pp

## SG16: Entertainment Computing

# **Report to Council and Technical Assembly Palma de Mallorca, Spain, March 4-5, 2005**

**Ryohei Nakatsu, SG16 Chair**

## **Part 1: Council (Palma de Mallorca, Spain)**

### **SG16 Entertainment Computing**

#### **1. SG16 meetings held since last report**

SG16 meeting took place during the SG16 conference (International Conference on Entertainment Computing) on September 19, 2005, at Sanda, Japan. Below are the list of the participants and the agenda.

#### **SG members :**

Ryohei Nakatsu (Prof., Kwansei Gakuin University, Chair)

Matthias Rauterberg (Prof., Eindhoven University of Technology, Vice-chair)

Benjamin Salem (Dr., Eindhoven University of Technology, Secretary)

#### **National Representatives:**

Canada                Sidney Fels (Prof., University of British Columbia)

China                 Zhigeng Pan (Prof., Zhejiang University)

Finland               Ville-Veikko Mattila (Dr., Nokia Research Centre)

Japan                 Takehiko Kamae (Dr., National Institute of Informatics)

Korea                 Hyun S. Yang (Prof., KAIST)

Netherlands        Matthias Rauterberg (Prof., Eindhoven University of Technology)

Singapore            Adrian David Cheok (Prof., National University of Singapore)

#### **WG chairs:**

WG16.2 chair: Hitoshi MATSUBARA

WG16.3 chair: Matthias RAUTERBERG

WG16.4 chair: Jos Uiterwijk (Dr., University of Maastricht) as proxy for Jaap VAN  
DEN HERIK (Prof., University of Maastricht)

WG16.5 chair: Andy SLOANE

#### **Agenda:**

Report of IFIP General Assembly

Report of WG activities

Journal on Entertainment Computing

ICEC2006

Upgrade of SG to TC

SG16 Web page

#### **2. SG16 meetings scheduled until next IFIP GA meeting**

As we have to start the preparation for the upgrade of our SG to TC, we should have a next business meeting sometime before the next General Assembly. So far there are three possible venues.

- (a) Edutainment06 (16-18 April, Hangzhou, China)
- (b) ACE06 (14-16 June, Los Angeles, USA)
- (c) SIGGRAPH06 (30 July-3 August, Boston, USA)

We are going to fix the venue based on the voting of the SG members.

### **3. Changes in membership and officers**

There have been several changes since the last report to the General Assembly in September 2005.

#### **3.1 National representative to SG16**

The Hungarian member society of IFIP nominated Barnabas Takacs to represent Hungary in SG16. Dr. Takacs graduated from Budapest Technical University in 1991 and spent most of his professional life in the US developing technologies like "digital cloning" and "facial tracking" in the film industry. Since this year he is leading a research group on Virtual Human Interfaces in the Computer and Automation Research Institute of the Hungarian Academy of Sciences. He can be reached at [BTakacs@digitalcustom.com](mailto:BTakacs@digitalcustom.com).

APDSI, the Portuguese IFIP Member Society appointed the following person as their representative in SG16

Prof. António da Nóbrega de Sousa da Câmara  
YDreams  
Madam Parque - PCTAS, Quinta da Torre  
2829-516 Caparica, Portugal  
Tel. +351 212 949 683  
Fax +351 212 952 380  
e-mail: antonio.camara@ydreams.com

#### **3.2 Chair and vice chair**

As three years have passed since the establishment of SG16, based on IFIP bylaw it is necessary to carry out the election of the next chair and co-chair. The election was carried out at the SG meeting held on September 19, 2005. Both Ryohei Nakatsu and Matthias Rauterberg were re-elected as a chair and a vice chair respectively.

#### **3.3 Secretary**

Dr. Benjamin (Ben) Salem, a researcher at Technical University of Eindhoven, the Netherlands, has replaced Claudio Pinhanes.

#### **3.4 SG members**

The present SG members are shown below

1 Bulgaria                      Galia Angelova                      (Prof., Bulgarian Academy of Sciences)

2	Canada	Sidney Fels	(Prof., University of British Columbia)
3	China	Zhigeng Pan	(Prof., Zhejiang University)
4	Denmark	(to be nominated)	
5	Finland	Ville-Veikko Mattila	(Dr., Nokia Research Center)
6	France	Bruno Alnandi	(IRISA)
7	Germany	(to be nominated)	
8	Hungary	Barnabas Takacs	(Dr., Hungarian Academy of Sciences)
9	Ireland	Richard Reilly	(Lecturer, University College of Dublin)
11	Italy	Paolo Ciancarini	(Prof., University of Bologna)
12	Japan	Takehiko Kamae	(Dr., National Institute of Informatics)
13	Korea	Hyun S. Yang	(Prof., KAIST)
14	Netherlands	Matthias Rauterberg	(Prof., Technical University of Eindhoven)
15	Norway	Geir Egil Myhre	(Dr., University of Troms)
16	Portugal	Antonio Camara	(Prof., YDreams)
16	Singapore	Adrian David Cheok	(Prof., National University of Singapore)
17	Spain	Pedro Gonzalez Calero	(Prof., Complutense University of Madrid)
18	Thailand	Natanicha Chorpothong	(Dr., Assumption University)
17	United Kingdom	Marc Cavazza	(Prof., University of Teesside)
18	USA-ACM	Donald Marinelli	(Prof., Carnegie Mellon University)
19	USA-IEEE	(to be nominated)	

#### 4. SG16 conferences held since last report

##### 4.1 International Conference on Entertainment Computing (ICEC2005)

ICEC2005 took place in Sanda, Japan on September 19-21, 2005 and was organized by Prof. Ryhohei Nakatsu, the SG16 chair. As ICEC is one of the major activities of SG16, SG16 supported the conference as a major sponsor. Also IPSJ (Information Processing Society of Japan) supported the conference as a co-sponsor. (URL of ICEC2005: <http://ist.ksc.kwansei.ac.jp/icec2005/>)

The statistics of the conference are provided below.

- (a) 165 participants from 17 countries
- (b) More than 150 papers submitted
- (c) 65 papers were accepted and included in the proceedings
- (d) Four invited talks by distinguished researchers in the area of entertainment computing

##### 4.2 Related events of ICEC2005

To lead ICEC2005 into success, we have organized several workshops in conjunction with ICEC2005.

### **4.2.1 Entertainment Computing 2005 (EC2005)**

EC2005 is a domestic workshop on Entertainment Computing. Its main purpose is to activate the research activities of young researchers/students in this area and also to strengthen the relationship between academia and industry. The first EC workshop was held in 2003 in Osaka, Japan. The third EC workshop was held just before ICEC2005 on Sept 16-19 in Sanda, Japan. About 120 participants attended the workshop. Although the workshop is mainly for Japanese attendees, several key members of the SG16 joined the workshop as keynote speakers. Also several joint events such as Wearable Fashion Show was held in cooperation with ICEC2005. (URL of EC2005: <http://www.entcomp.org/ec2005/>)

### **4.2.2 International Ubiquitous Home Workshop**

After ICEC2005, International Ubiquitous Home Workshop was held on Sept. 22-23, 2005 in Kyoto, Japan. The theme of the workshop was "Ubiquitous Society and Entertainment." Although ICEC focuses mainly on entertainment technologies, it is well known that entertainment is strongly related to our life, society, art, and culture. Therefore we wanted to make this workshop an interdisciplinary one including keynote speech, panel discussions and presentations from areas such as sociology, psychology, philosophy, and so on. More than 150 people with various backgrounds such as technology, psychology, sociology, philosophy and art attended the workshop. On the first day we focused on the technologies on ubiquitous computing. On the second day, in addition to technical presentations several panel discussions were carried out focusing the interdisciplinary discussion. Fortunately fruitful discussions were carried out and we have promised that we would have this type of interdisciplinary workshop again soon. (URL of International Ubiquitous Home Workshop: [http://www2.nict.go.jp/jt/a135/resource/ubiquitous\\_ws2/index.html](http://www2.nict.go.jp/jt/a135/resource/ubiquitous_ws2/index.html))

## **4.3 Other co-sponsored events**

### **4.3.1 Mobility 2005**

The Second International Conference on Mobile Technology, Applications and Systems  
November 15-17, 2005  
Guangzhou, China

## **5. SG16 conferences to be held**

### **5.1 ICEC2006**

ICEC2006 will be held in Cambridge, United Kingdom on September 20-22, 2005. Below is the list of the major organizing committee members.

General Conference Chair:

Richard Harper (Microsoft Research, UK)

International Program Committee Chair:

Matthias Rauterberg (TU Eindhoven, The Netherlands)

#### International Steering Committee:

Marc Cavazza (University of Teesside, UK)  
Tak Kamae (Tokyo Women's Medical University, Japan)  
Lizhuang Ma (Shanghai Jiao Tong University, China)  
Don Marinelli (Carnegie Mellon University, USA)  
Stéphane Natkin (CNAM, France)  
Ryohei Nakatsu (Kwansei Gakuin University, Japan)  
Matthias Rauterberg (TU Eindhoven, The Netherlands)  
Peter Robinson (University of Cambridge, UK)  
Andy Sloane (University of Wolverhampton, UK)  
Bill Swartout (University of Southern California, USA)

## 5.2 Co-sponsored Events

### 5.2.1 Edutainment 2006

International Conference on E-learning and Games  
April 16-19, 2006  
Hangzhou, China  
General chairs:       Jiaoying Shi (China)  
                          Jose Encamacao (Germany)  
                          Steve Cunningham (USA)

### 5.2.2 ACE2006

International Conference on Advances in Computer Entertainment Technology 2006  
June 14-16, 2006  
Hollywood, Los Angeles, USA  
General chairs:       Hiroshi Ishii (USA)  
                          Newton Lee (USA)  
                          Stephane Natikin (France)  
                          Katsuhide Tsushima (Japan)

## 6. Other SG16 activities

### 6.1 SG16 web page

To advertise the activities of SG16 we have prepared a new web page for SG16. The URL of the web page is <http://www.org.id.tue.nl/IFIP-SG16/index.html/>

### 6.2 Publications

Proceedings of ICEC2005 held in Sanda, Japan, on September 19-21 was published from Springer as one of the Springer Lecture Notes on Computer Science series.

Also proceedings of ICEC2006 will be published from Springer as one of the LNCS series.

## **Working Groups**

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

Chair: Marc Cavazza (UK)

#### **(a) Meetings**

WG16.1 meeting was held in Sanda, Japan on September 19-21, 2005 at the time of ICEC2005.

Next WG16.1 meeting will be held in Los Angeles, USA on June 14-16, 2006 during ACE2006.

(b) Events

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

Chair: Hitoshi Matsubara (Japan)

#### **(a) Meetings**

WG16.2 meeting was held in Sanda, Japan on September 19-21, 2005 at the time of ICEC2005.

Next WG16.2 meeting will be held in Bremen, Germany on June 14-20, 2006 during RoboCup 2006.

(b) Events

Exhibition: RoboCup 2006

Place: Bremen, Germany

Time: June 14-20, 2006

<http://www.robocup2006.org/>

(c) Activities

So far the only activity of WG16.2 is related to the RoboCup activity. RoboCup 2006 will be held in Bremen, Germany during the Football Worldcup. It is necessary for the group to widen the area of activities from the RoboCup into more entertainment robots.

### **3. WG16.3 Theoretical Foundation of Entertainment Computing**

Chair: Matthias Rauterberg

(a) Meetings

WG16.3 meeting was held in Sanda, Japan on September 19-21, 2005 at the time of ICEC2005. Next WG16.3 meeting will held in Hangzhou, Chine on April 16-19, 2006 at the time of Edutainment2006.

(b) Activities

They have recruited a couple of new members. Also they are trying to link the WG interests with on-going events.

#### **4. WG16.4 Games and Entertainment Computing**

Chair: Jaap van den Herik (Prof., University of Maastricht, Netherlands)

(a) Meetings

WG16.3 meeting was held in Sanda, Japan on September 19-21, 2005 at the time of ICEC2005.

(b) Activities

They are going to arrange the next meeting in Turino, Italy in May 2006 during a chess championship and a game conference.

#### **5. WG16.5 Social and Ethical Issues in Entertainment Computing**

Chair: Andy Sloane (Prof., University of Wolverhampton, UK)

(a) Meetings

WG16.3 meeting was held in Sanda, Japan on September 19-21, 2005 at the time of ICEC2005.

(b) Activities

AS a fairly new group, they have spent a few months discussing the scope of this WG. They have established a mailing list and some online community. They have now around nine active members. There is quite some overlap over TC9 with similar but not exactly the same focus. The next step would be to organize an event in 2006, probably a workshop in Wolverhampton.

## **Part 2: Technical Assembly 2006 (Palma de Mallorca, Spain)**

### **SG16 Members (2006)**

Chairman

Japan                      Ryohei Nakatsu

Vice-Chair

Netherlands              Matthias Rauterberg

Secretary

Netherlands              Benjamin Salem



### *National Representatives*

Bulgaria	Galia Angelova (Prof., Burgalian Academy of Sciences)
Canada	Sidney Fels (Prof., University of British Columbia)
China	Zhigeng Pan (Prof., Zhejiang University)
Denmark	(to be nominated)
Finland	Ville-Veikko Mattila (Dr., Nokia Research Center)
France	Bruno Alnandi (IRISA)
Germany	(to be nominated)
Hungary	Barnabas Takacs (Dr., Hungarian Academy of Sciences)
Ireland	Richard Reilly (Lecturer, University College of Dublin)
Italy	Paolo Ciancarini (Prof., University of Bologna)
Japan	Takehiko Kamae (Dr., National Institute of Inofomatics)
Korea	Hyun S. Yang (Prof., KAIST)
Netherlands	Matthias Rauterberg (Prof., Technical University of Eindhoven)
Norway	Geir Egil Myhr (Dr., University of Troms)
Portugal	Antonio Camara (Prof., YDreams)
Singapore	Adrian David Cheok (Prof., National University of Singapore)
Spain	Pedro Gonzalez Calero (Prof., Complutense University of Madrid)
Thailand	Natanicha Chorpothong (Dr., Internet Association)
United Kingdom	Marc Cavazza (Prof., University of Teesside)
USA-ACM	Donald Marinelli (Prof., CMU)

### *WG16.x Chair persons*

WG16.1	Marc Cavazza
WG16.2	Hitoshi Matsubara
WG16.3	Matthias Rauterberg
WG16.4	Jaap van den Herik
WG16.5	Andy Sloane

## SG16 Meetings: Attendance

<b>Nation/Year</b>	<b>02</b>	<b>03/1</b>	<b>03/2</b>	<b>04/1</b>	<b>05/1</b>	<b>Total</b>
Bulgaria	-	-	-	a	a	-
Canada	-	-	-	a	+	1
China	-	-	-	a	+	1
Denmark	-	-	-	-	-	-
Finland	-	-	-	+	+	2
France	-	-	-	+	a	1
Germany	-	-	-	-	-	-
Hungary	-	-	-	-	-	-
Ireland	-	-	-	a	a	-
Italy	-	-	-	+	a	1
Japan	+	+	+	+	+	5
Korea	-	-	-	+	+	2
Netherlands	+	+	+	+	+	5
Norway	-	-	-	+	a	1
Singapore	-	-	-	+	+	2
Spain	-	-	-	-	-	-
Thailand	-	-	-	a	a	-
United Kingdom	+	+	+	+	a	4
USA	+	a	a	+	a	2
WG16.1 Chair	+	+	+	+	a	4
WG16.2 Chair	+	a	a	+	+	3
WG16.3 Chair	+	+	+	+	+	5
WG16.4 Chair	-	-	-	-	+	1
WG16.5 Chair	-	-	-	-	+	1
	<b>02</b>	<b>03/1</b>	<b>03/2</b>	<b>04/1</b>	<b>05/1</b>	<b>Total</b>

— + representative attended — a apologies — r represented— o observer

**7.k. SG16 Business meeting, Eindhoven, 1-3 September  
2004**

(IFIP business meeting 2004) 15pp

# IFIP SG16 business meeting, Eindhoven, September 1 and 3, 2004

## Attendees:

### **September 1, 2004, 20:00-21:00**

Brad Bushman [bbushman@umich.edu]; Geir Egil Myhre [geirmy@cs.uit.no]; Haruhiro Katayose [katayose@ksc.kwansei.ac.jp]; Hiroshi Matsubara [matsubara@fun.ac.jp]; Jussi Holopainen [jussi.holopainen@nokia.com]; Lee Shang Ping (proxy for Adrian Cheok) [eleleesp@nus.edu.sg]; Marc Cavazza [m.o.cavazza@tees.ac.uk]; Matthias Rauterberg [g.w.m.Rauterberg@tue.nl]; Paolo Ciancarini [ciancarini@cs.unibo.it]; Ryohei Nakatsu [nakatsu@ksc.kwansei.ac.jp]; Woontack Woo (proxy for Hyun S Wang) [wwoo@gist.ac.kr];

### **September 3, 2004, 17:30-19:00**

Andy Sloane [a.sloane@wlv.ac.uk]; Anton Nijholt [anijholt@cs.utwente.nl]; Brad Bushman [bbushman@umich.edu]; Brenda Bakker Harger (proxy for Don Marinelli) [bharger@andrew.cmu.edu]; Frans Vogelaar [vogelaar@khm.de]; Geir Egil Myhre [geirmy@cs.uit.no]; Haruhiro Katayose [katayose@ksc.kwansei.ac.jp]; Hyun S Yang [hsyang@cs.kaist.ac.kr]; Jaap van den Herik [herik@cs.unimaas.nl]; Jussi Holopainen [jussi.holopainen@nokia.com]; Lee Shang Ping (proxy for Adrian Cheok) [leeadc@nus.edu.sg]; Marc Cavazza [m.o.cavazza@tees.ac.uk]; Matthias Rauterberg [g.w.m.Rauterberg@tue.nl]; Paolo Ciancarini [ciancarini@cs.unibo.it]; Ryohei Nakatsu [nakatsu@ksc.kwansei.ac.jp];

## AGENDA

### **1. Welcome**

Ryohei Nakatsu welcomed everybody and asked for approval of the proposed agenda (approved by majority, item 4.5 and 4.4 are exchanged). All participants introduced themselves.

### **2. General Report**

#### **2.1 IFIP General Assembly (Ryohei Nakatsu)**

[see appendix-1 and -2]

more about IFIP see

[http://www.ipo.tue.nl/homepages/mrauterb/presentations/2004\\_IFIP-SG16.htm](http://www.ipo.tue.nl/homepages/mrauterb/presentations/2004_IFIP-SG16.htm)

you can download the IFIP bylaws via

<http://www.ipo.tue.nl/homepages/mrauterb/presentations/IFIP-bylaws-2004.pdf>

#### **2.2 WCC 2004 (World Computer Congress) (Ryohei Nakatsu)**

On August 23, 2004 a special topical day was organized with the following invited speakers: R. Nakatsu, M. Cavazza, A.D. Cheok, M. Rauterberg, N. Tosa, H. Thomas. About 40 people attended the two sessions.

2.3 ACE2004 (International Conference on Advances in Computer and Entertainment Technology) (Lee Shang Ping as proxy for Adrian Cheok)  
ACM SIGCHI International Conference on Advances in Computer Entertainment Technology ACE 2004 was successfully held 3rd - 5th June 2004 at National University of Singapore, Singapore. About 100 attendees and 28 full papers, 29 short papers, 22 demo/poster presentations. More information at <http://www.ace2004.org/>

**2.4 ICEC2004 (International Conference on Entertainment Computing) (Matthias Rauterberg)**

[see appendix-3]

**3. Working Group Report**

**3.1 WG16.1 (Digital Storytelling) (Marc Cavazza)**

[see appendix-1]

**3.2 WG16.2 (Entertainment Robot) (Hitoshi Matsubara)**

[see appendix-1]

**3.3 WG16.3 (Theoretical Basis of Entertainment) (Matthias Rauterberg)**

[see appendix-1]

[for future WG reports, the template in appendix-4 maybe useful]

**4. Future Activities and Proposals**

**4.1 ICEC2005 (Haruhiro Katayose)**

After intensive discussions it was agreed upon to organize an email based voting procedure for setting time and location for ICEC 2005. This has already been done with the following results:

ICEC2005

September 19th - 21st, 2004, KSC(Sanda), Kwansei Gakuin University

Social Event and Workshop: 22nd - 23rd

Schedule

19th: Conference, Reception

20th: Conference

21th: Conference, Banquet (Dinner, Kyogen-show)-- optional

22th: Academic Tour (Osaka U., ATR, Kyoto U., etc)---optional

Night sightseeing of Kyoto--optional

23rd: Workshop--optional

The main idea is that we would concentrate on the conference for the first three days. Then we will change the air. In the evening of the final day, we will enjoy Kobe steak dinner (Kobe steak is one of the best steak all over the world!) and watch Kyogen (comical Noh).

On the next day we will go to academic tour and visit several famous research organizations. In the evening we will arrive at a hotel in Kyoto and then enjoy the night of Kyoto.

We are planning of organizing a workshop on the next day, where we would discuss the relationship between entertainment and other things such as society, culture, and even religion including several famous invited guests in these areas

(At the same time a domestic workshop on entertainment computing will be held on 22<sup>nd</sup> - 24<sup>th</sup> mainly for Japanese attendees in Sanda.)

We are now selecting the organization committee members. If you want to be involved as one of the organization committee members, please do not hesitate to raise your hand.

#### **4.2 International Robocup (Hitoshi Matsubara)**

Matsubara-san gave some background information about the Robocup activities and events worldwide: RoboCup is an international joint project to promote AI, robotics, and related field. It is an attempt to foster AI and intelligent robotics research by providing a standard problem where wide range of technologies can be integrated and examined. RoboCup chose to use soccer game as a central topic of research, aiming at innovations to be applied for socially significant problems and industries. The ultimate goal of the RoboCup project is by 2050, develop a team of fully autonomous humanoid robots that can win against the human world champion team in soccer. In order for a robot team to actually perform a soccer game, various technologies must be incorporated including: design principles of autonomous agents, multi-agent collaboration, strategy acquisition, real-time reasoning, robotics, and sensor-fusion. RoboCup is a task for a team of multiple fast-moving robots under a dynamic environment. RoboCup also offers a software platform for research on the software aspects of RoboCup. One of the major application of RoboCup technologies is a search and rescue in large scale disaster. RoboCup initiated RoboCupRescue project to specifically promote research in socially significant issues. RoboCup usually attracts several thousand visitors.

#### **4.3 WCC2006 and ICEC2006 (Ryohei Nakatsu)**

The next IFIP World Computer Congress will be held in August/September 2006; Santiago de Chile. Nakatsu proposed a joint event with ICEC2006. After some discussions no decision was taken. This agenda item will come back next SG business meeting.

#### **4.5 Establishment of WG16.4 on Games and Entertainment (Jaap von den Herik)**

After some discussions about the scope of this new WG the proposal was approved (votes: +15, +/- 0, -0)

#### **4.4 Publication of Journal on Entertainment Computing (Matthias Rauterberg)**

[CONFIDENTIAL] Elsevier took several months ago the initiative to plan a new international journal for the topic of entertainment computing. Nakatsu and Rauterberg are in contact with Elsevier to set-up the scope and structure for this new journal. On September 3, 2004 a follow-up meeting with Elsevier took place, and based on the success of ICEC 2004 one major result was to continue with this initiative. Next steps are completing the proposal (General Editors for USA (NN), Japan (Nakatsu), Europe (Rauterberg), plus an editorial board of 20-30 experts from the field), and rewriting the scope.

### **5. Any other business**

No further items were proposed. Nakatsu closed the meetings and thanked everybody.



**Distribution List for these minutes:**

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# Appendix-1

SG16: Entertainment Computing

## Report to IFIP General Assembly – Toulouse, France, 2004

Ryohei Nakatsu, SG16 Chair

### Part 1: General Assembly

#### SG16 Entertainment Computing

##### 1. SG16 meetings held since last report

No meetings held

##### 2. SG16 meetings scheduled until next IFIP GA meeting

Time: September 1-3, 2004

Place: Eindhoven, Netherlands

##### 3. WG meetings held since last report

No meetings held

##### 4. Changes in Membership and Officers

I have asked all the IFIP national representatives to nominate a national representative for SG16. I have received many responses from them and so far the below members have been fixed.

Bulgaria	Galia Angelova	(Prof., Bulgarian Academy of Sciences)
Canada	Sidney Fels	(Prof., University of British Columbia)
China	Zhigeng Pan	(Prof., Zhejiang University)
Denmark	to be nominated	
Finland	Jussi Holopainen	(Mr., Nokia Research Center)
France	Bruno Arnaldi	(Dr., IRISA)
Germany	to be nominated	
Ireland	Richard Reilly	(Lecturer, University College of Dublin)
Italy	Paolo Ciancarini	(Prof., University of Bologna)
Japan	Takehiko Kamae	(Dr., National Institute of Informatics)
Korea	Hyun S. Yang	(Prof., KAIST)
Netherlands	Matthias Rauterberg	(Prof., Technical University of Eindhoven)
Norway	Geir Egil Myhre	(Dr., University of Troms)

Singapore	Adrian David Cheok	(Prof., National University of Singapore)
Thailand	Natanicha Chorpothong	(Dr., Internet Association)
United Kingdom	Marc Cavazza	(Prof., University of Teesside)
USA	Donald Marinelli	(Prof., CMU)

## 5. SG16 Activities

### 5.1 Organization of ICEC2004

As was reported at the GA meeting last year, the next ICEC, ICEC2004, was to be held in Barcelona in May of 2004. As we could not obtain enough support from universities and city of Barcelona, however, we had to change the site of the conference. After a long time discussion we held an extra SG16 meeting at Osaka on October 1-3, 2003 at the time of VRST (Symposium on Virtual Reality Software and Technology), and finally we decided that ICEC2004 would be held on September 1-3, 2004 in Eindhoven, Netherland. In spite of short time allotted to us until the date of ICEC2004, the organizing committee of the conference headed by Prof. Matthias Rauterberg of Technical University of Eindhoven worked very hard for the conference organization job and now it is expected that the conference would attract more attendees than the previous conference. (URL of ICEC2004: <http://www.industrialdesign.tue.nl/conference/icec2004/>)

### 5.2 ACE

As one of the activities of SG16, SG16 became co-sponsor of International Conference on Advances in Computer Entertainment Technology (ACE) that was held on June 3-5 in Singapore. (URL of ACE: <http://www.ace2004.org/>)

### 5.3 Promotion of the research activities in the area of entertainment computing

Along with the organization of international conferences/workshops, it is important to promote the research activities in this area in many countries. As a first step toward this aim we have started our promotion activities in Japan. Last year we organized special issues on entertainment computing in various academic journals, proceedings and magazines as listed below.

Special issue on "Entertainment Computing," Magazine of Information Processing Society of Japan, Vol.44, No.8 (2003.8).

Special issue on "Entertainment and AI," Journal of the Japanese Society for Artificial Intelligence, Vol.19, No.1 (2004.1).

Special issue on "Virtual Reality and Entertainment," Journal of Virtual Society of Japan, to appear

Activated by our activity, in several universities the movement toward the establishment of new departments or research laboratories focusing on entertainment computing is emerging. Several of this trend are;

Interactive Entertainment Laboratories at Waseda University (established in the winter of 2003)

Entertainment Computing Laboratory (established in the summer of 2003)

Entertainment Computing Research Center, Kwansai Gakuin University (established in July, 2004)

## **WG16.1 Digital Storytelling**

### **1. Members**

Prof. Cavazza, chair of WG16.1, is now recruiting members of WG16.1. So far the following persons have been selected as core members of WG16.1.

Michael Young, North Carolina State University, USA

Ana Paiva, INSEC, Lisbon, Portugal

Stephane Natkin, CNAM, France

### **2. Events**

Workshop: Entertainment Computing 2004 (will be held in cooperation with WG16.2) Place: Hokkaido, Japan; Time: August 20-22, 2004

## **WG16.2 Entertainment Robot**

### **1. Meetings**

First meeting of WG16.2 was held in Osaka, Japan in April of 2004 in Osaka, Japan.

### **2. Events**

Exhibition: Robocup Japan 2004; Place: Osaka, Japan; Time: April, 2004

Workshop: Entertainment Computing 2004 (will be held in cooperation with WG16.1); Place: Hokkaido, Japan; Time: August 20-22, 2004

### **3. Activities**

WG16.2 is supporting Robocup as entertainment robot is one of key themes of it. International Robocup will be held in Osaka in June of 2005 where Prof. Matsubara, chair of WG16.2, will act as a general chair. As a pre-event for this international event, Robocup Japan 2004 was held in April of 2004 as described above.

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

### **1. Meetings**

First meeting of WG16.3 will be held in Eindhoven, Netherlands on Sept. 1-3, at the time of ICEC2004.

### **2. Members**

Prof. Rauterberg, chair of WG16.3 is now recruiting new members of WG16.3 and the new members of WG16.3 will be fixed by the first WG meeting.

## Part 2: Technical Assembly 2004 (Toulouse)

### SG16 Members (2004)

Chairman	
Japan	Ryohei Nakatsu
Vice-Chair	
Netherlands	Matthias Rauterberg
Secretary	
USA	Claudio Pinhanez

### National Representatives

Bulgaria	Galia Angelova (Prof. )
Canada	Sidney Fels (Prof., University of British Columbia)
China	Zhigeng Pan (Prof., Zhejiang University)
Denmark	to be nominated
Finland	Jussi Holopainen (Mr., Nokia Research Center)
France	Bruno Arnaldi (IRISA)
Germany	to be nominated
Ireland	Richard Reilly (Lecturer, University College of Dublin)
Italy	Paolo Ciancarini (Prof., University of Bologna)
Japan	Takehiko Kamae (Dr., National Institute of Infomatics)
Korea	Hyun S. Yang (Prof., KAIST)
Netherlands	Matthias Rauterberg (Prof., Technical University of Eindhoven)
Norway	Geir Egil Myhr (Dr., University of Troms)
Singapore	Adrian David Cheok (Prof., National University of Singapore)
Thailand	Natanicha Chorpothong (Dr., Internet Association)
United Kingdom	Marc Cavazza (Prof., University of Teesside)
USA	Donald Marinelli (Prof., CMU)

### WG16.x Chair persons

WG16.1	Marc Cavazza
WG16.2	Hitoshi Matsubara
WG16.3	Matthias Rauterberg

### SG16 Meetings: Attendance

Nation/Year	02	03/1	03/2	Total
Bulgaria	-	-	-	-
Canada	-	-	-	-
China	-	-	-	-
Denmark	-	-	-	-
Finland	-	-	-	-
France	-	-	-	-
Germany	-	-	-	-
Ireland	-	-	-	-
Italy	-	-	-	-
Japan	+	+	+	3
Korea	-	-	-	-
Netherlands	+	+	+	3
Norway	-	-	-	-
Singapore	-	-	-	-
Thailand	-	-	-	-
United Kingdom	+	+	+	3
USA	+	a	a	1

WG16.1 Chair	+	+	+	3
WG16.2 Chair	+	a	a	1
WG16.3 Chair	+	+	+	3
	02	03/1	03/2	

\* Resigned from TC — + representative attended — a apologies — r represented— o observer

## Appendix-2

Nation	INV	recommendation	Resp.	Nomination	affiliation	SG meeting
		from SG16	1st,2nd			
Andorra	p		n			
Argentina	p		n,p	n		
Australia	p		n			
Austria	p		p			-
Belgium						
Botswana	p					
Brazil	p		p			
Bulgaria	p		p,p	Galia Angelova	Prof.,	n
Canada	p	Sidney Fels	n,p	Sidney Fels	Prof., University of British Columbia	n
Chile	p		n			
China	p	Zhigeng Pan	n,p	(to be nominated)	Prof., Zhejiang University	
Croatia	p		n			
Cyprus						
Czech						
Denmark	p		p,p	(to be nominated)		
Egypt	p		n			
Finland	p		n,p	Jussi Holopainen	Mr., Nokia Research Center	p
France	p		p	Bruno Arnaldi	Dr., IRISA	
Germany	p		n,p	(to be nominated)		
Greece	p		n			
Hungary	p		n			
India	p		n			
Ireland	p	Richard Reilly		Richard Reilly	Lecturer, University College of Dublin	
Israel	p		n			
Italy	p		p	Paolo Ciancarini	Prof., University of Bologna	p
Japan		Takehiko Kamae		Takehiko Kamae	Dr., National Institute of Informatics	p
Japan		Hitoshi Matsubara		Hitoshi Matsubara	Future Univ. of Hakodate	p (WG16.2)
Korea	p	Hyun S. Yang	p	Hyun S. Yang	Prof., KAIST	p
Lithuania	p		n			
Netherlands		Matthias Rauterberg		Matthias Rauterberg	Prof., Technical University of Eindhoven	p (WG16.3)

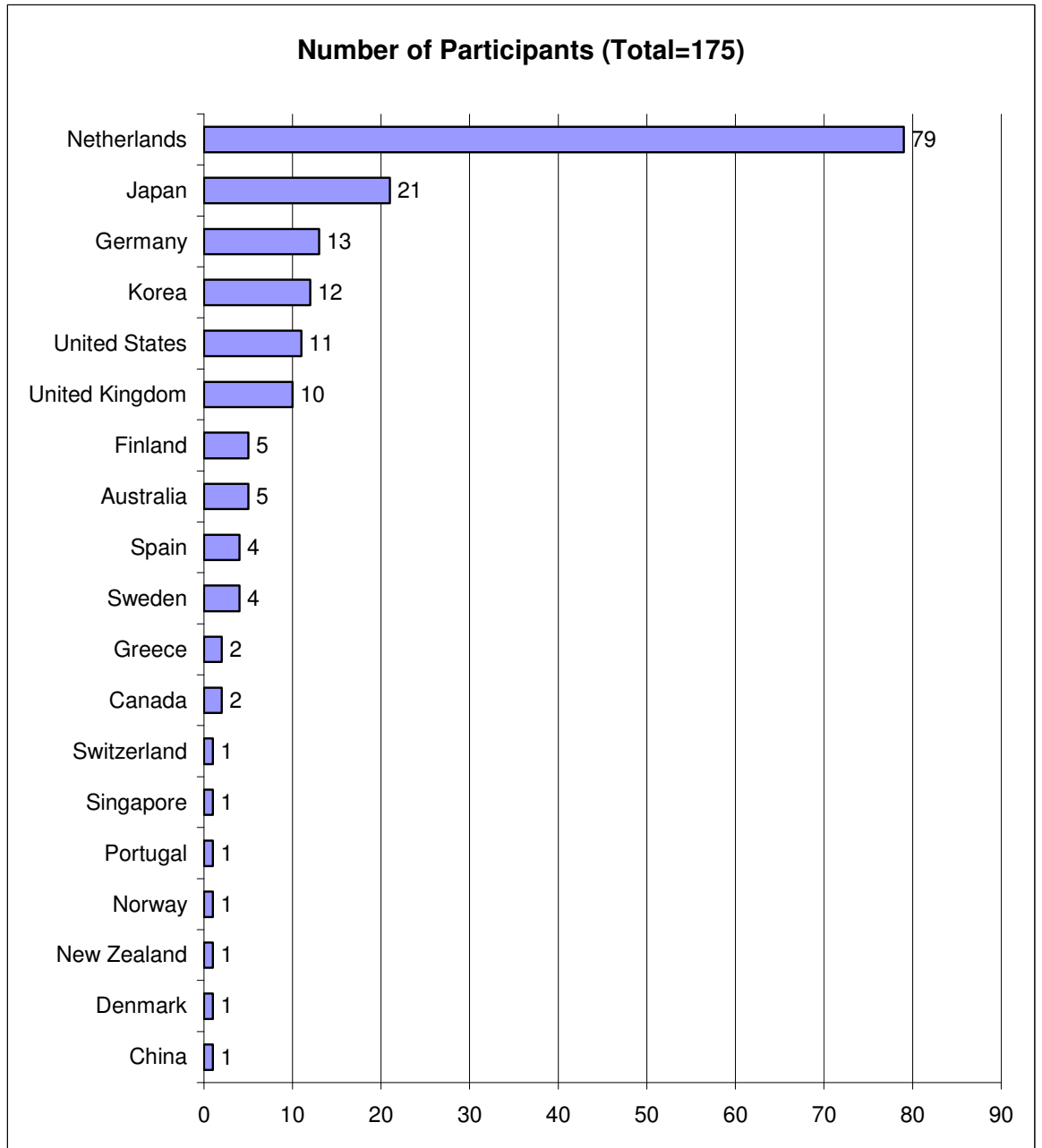
Netherlands		Jaap van den Herik		Jaap van den Herik	University of Maastricht	p
Norway			p	Geir Egil Myhre	Dr., University of Troms	p
Oman	p		n			
Poland						
Portugal	p		n			
Russia						
Singapore	p	Adrian David Cheok	p	Adrian David Cheok	Prof., National university of Singapore	p (proxy:Shang Ping)
Slovakia	p		n			
Slovenia	p		n			
South Africa	p		p	n		
Sweden	p		p			
Switzerland	p		n			
Syria	p		n,p	n		
Thailand	p		n,p	Natanicha Chorpothong	Dr., Internet Association	p
United Kingdom	p	Marc Cavazza	p	Marc Cavazza	Prof., University of Teesside	p (WG16.1)
USA-ACM	p	Donald Marinelli			Prof., CMU	p (proxy:Brenda Harger)
USA-IEEE						
Zimbabwe	p		n			

p= positive, n- negative.

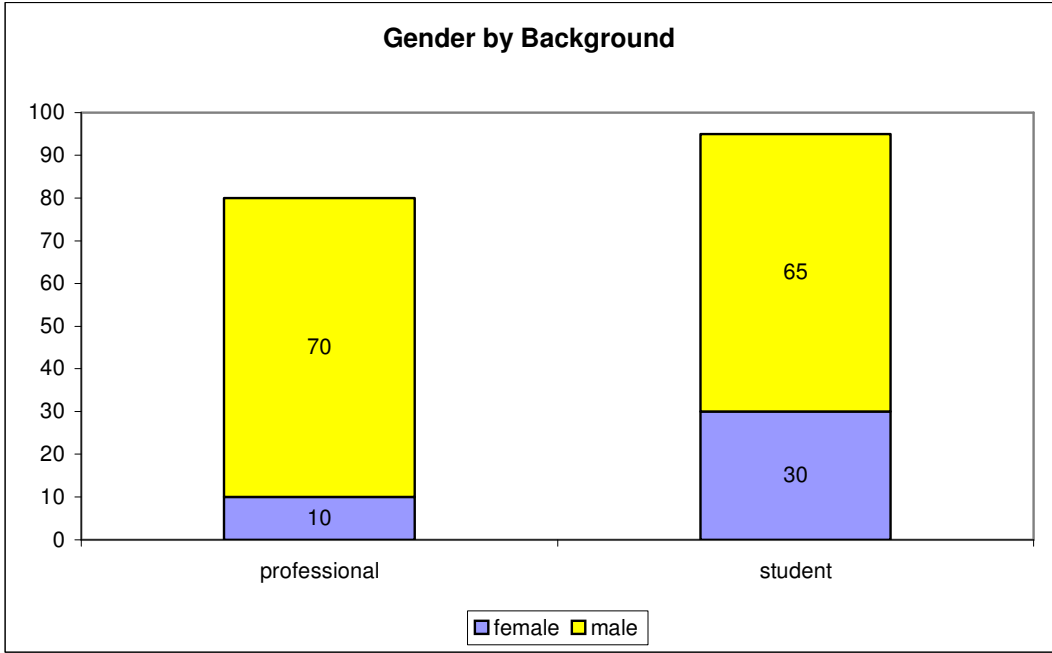
## Appendix-3

(September 21, 2004)

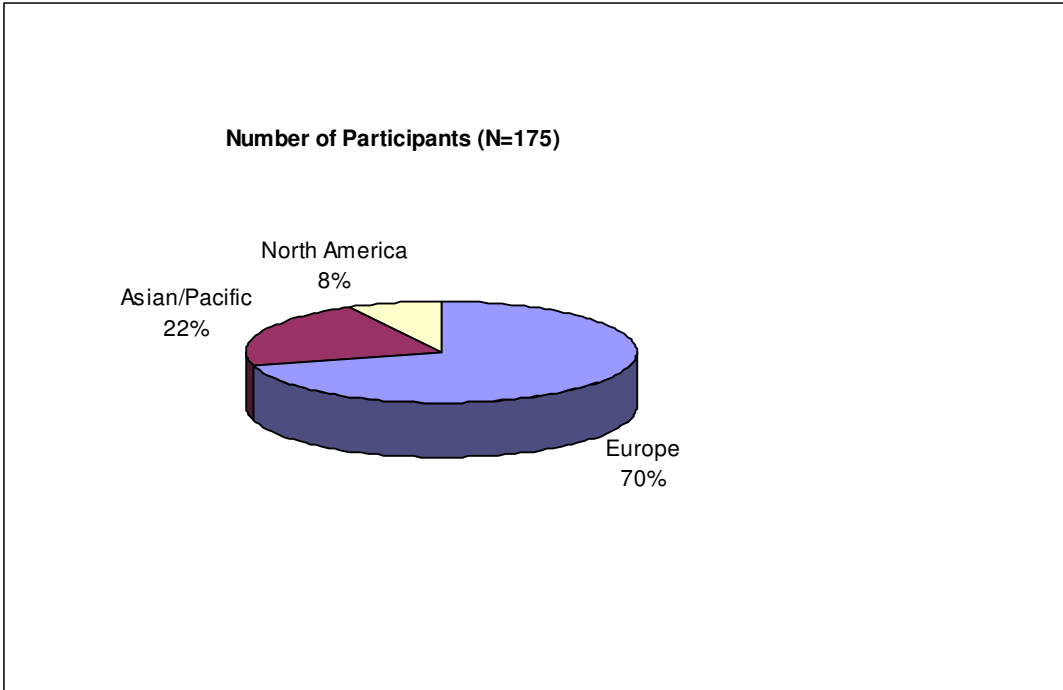
## Final Statistics:



In total 175 participants from 19 different countries from all over the world attended ICEC 2004.



In total 89 oral presentations were scheduled. One presentation was canceled on a short notice, and five no-shows (6%).



**International Program Committee:**

Based on a thorough review and selection process done by 93 international experts from academia and industry as member of the program committee, a high quality program could be compiled. The international program committee consisted of experts from 23 different countries from all over the world: 3 from Australia, 3 from Austria, 3 from Canada, 1 from China, 1 from Croatia, 2 from Denmark, 1 from Finland, 6 from France, 15 from Germany, 2 from Greece, 2 from Ireland, 2 from



Italy, 8 from Japan, 1 from Korea, 16 from Netherlands, 1 from New Zealand, 1 from Philippines, 1 from Singapore, 1 from South Africa, 3 from Sweden, 1 from Switzerland, 7 from United Kingdom, and 12 from United States.

### Review Process:

ICEC 2004 attracted 62 full paper submissions, 40 short paper submissions, 8 poster submissions and 4 demo submissions, in total 114.

As result, 27 full papers (44%) were directly accepted as submitted, and for the acceptable remaining 21 submissions the status to 9 short papers and 12 posters were recommended to change for final acceptance; 14 full paper submissions (23%) were definitively rejected; 19 short papers were directly accepted as submitted, and status to 8 posters and 2 demo papers were recommended to change for final acceptance; 11 short paper submissions (28%) were definitively rejected; 3 poster paper submissions were accepted and 5 rejected (63%); 3 demo paper submissions were accepted and 1 rejected (25%). Total acceptance rate was 73% and total rejection rate was 27%.

Finally 27 full papers, 27 short papers, 18 poster papers, 3 demo papers, and in addition 3 keynote papers plus 3 specially invited topic papers are compiled and presented in this book.

All these papers could be allocated to one of the following topics: (1) advanced interaction design; (2) art, design and media; (3) augmented, virtual and mixed reality; (4) computer games; (5) human factors of games; (6) intelligent games; (8) mobile entertainment; (9) sound and music; and (10) visual media engineering. Papers per topic are ordered as follows: full papers, short papers, demo papers, and poster papers.

### Proceedings:



#### Entertainment Computing - ICEC 2004

Third International Conference, Eindhoven, The Netherlands, September 1-3, 2004, Proceedings

Series : [Lecture Notes in Computer Science](#) , Vol. 3166

Rauterberg, Matthias (Ed.)

2004, XXIII, 617 p. Also available online., Softcover

ISBN: 3-540-22947-7

[Available online in SpringerLink](#)

Ready for shipping within 3 days. EUR 98.00

### Conference Evaluation:

Based on 20 filled-in evaluation forms (handed out during the conference), the conference was rated overall (bipolar scale: 0=poor, ..., 10=great) with mean 7.4 (1.5 std).

## Appendix-4

### WG13.x Reporting Template

**This template is a first attempt to help WG Chairs and Secretaries to simplify their reporting task and provide data about WG activity that is essential when reporting to SG/TC meetings and to the IFIP TA/GA meeting (via the SG/TC Chair).**

**Please use it when you have your next meeting (business or conference). It may take some time to complete the first time around, but it should be a relatively easy task to keep it up-to-date after that. Any comments, additions and improvements would be greatly appreciated.**

1	WG Name
2	WG Web site URL
3	WG mail list address
4	Office Bearers Names: <span style="float: right;">Date their term</span> starts/finishes Chair <span style="float: right;">eg 2004-2007</span> Vice-chair(s) Secretary:
5	Members and Officers requiring endorsement since last TC13 meeting
6	Events Summary for <b>all</b> active WG events (including new proposals). For each event. Please provide as much of the following information as possible.
7	Event/ Conference Title Event status – tentative (1), approved by SG16 (2), approved by Activity Management Board (3), event held (4), event closed off this period (5)
8	Event/ Conference Officers
9	Event Type: Workshop, Working Conference, etc.
10	Co-sponsors (if used)
11	Event Location
12	Event date
13	Proceedings details type (journal, book. etc.), publisher
14	Number of participants
15	Approximate distribution of participants by country
16	Financial outcome
17	Business meetings held including: 1. Place and Date 2. Number of members (and friends) present (please attach the attendance record) 3. Election results (if any) 4. Current membership (provide URL or attachment to report) 5. Summary of significant outcomes or other items of business)
18	Task Group Progress Report (if applicable)
19	Summary of Proposals for consideration by TC13 (Please attach the detail) - New Task Groups - Changes to Aims and Scope
20	Any other matters of interest

**7.1. SG16: Specialist Group on Entertainment Computing  
Minutes of the specialist group meeting Sanda, Japan,  
19<sup>th</sup> September 2005**

## SG16: Specialist Group on Entertainment Computing

Minutes of the specialist group meeting held on the 19<sup>th</sup> September 2005

**Hotel new Hankyu, Sanda, Japan.**

**Author: Benjamin Salem, last edited 1<sup>st</sup> February 2006.**

### **List of participants:**

#### **Present:**

##### SG Members:

Ryohei Nakatsu (Prof., Kwansei Gakuin University, Chair)

Matthias Rauterberg (Prof., Eindhoven University of Technology, Vice-chair)

Benjamin Salem (Dr., Eindhoven University of Technology, Secretary)

##### **National Representatives:**

Canada Sidney Fels (Prof., University of British Columbia)

China Zhigeng Pan (Prof., Zhejiang University)

Finland Ville-Veikko Mattila (Dr., Nokia Research Centre)

Japan Takehiko Kamae (Dr., National Institute of Informatics)

Korea Hyun S. Yang (Prof., KAIST)

Netherlands Matthias Rauterberg (Prof., Eindhoven University of Technology)

Singapore Adrian David Cheok (Prof., National University of Singapore)

##### **WG chairs:**

WG16.2 chair: Hitoshi MATSUBARA

WG16.3 chair: Matthias RAUTERBERG

WG16.4 chair: Jos Uiterwijk (Dr., University of Maastricht) as proxy for Jaap VAN DEN HERIK (Prof., University of Maastricht)

WG16.5 chair: Andy SLOANE

##### Guests

Roy Ascott (Prof., University of Plymouth)

Naoko Tosa (Prof., Kyoto University)

#### **Absent:**

##### **National Representatives:**

Bulgaria Galia Angelova (Prof. Bulgaria Academy of Sciences)\*

France Bruno Arnaldi (IRISA-INRIA)

Ireland Richard Reilly (Lecturer, University College of Dublin)

Italy Paolo Ciancarini (Prof., University of Bologna)

Norway Geir Egil Myhr (Dr., University of Troms)

Spain Pedro Gonzalez Calero (Prof., Complutense University of Madrid)\*

Thailand Natanicha Chorpothong (Dr., Internet Association)

United Kingdom Marc Cavazza (Prof., University of Teesside)

USA-ACM Donald Marinelli (Prof., CMU)

##### **WG Chairs**

WG16.1 chair: Marc CAVAZZA (Prof., University of Teesside)

**\*= absence notified**

## **1. Action Plan agreed upon**

- WG1: report on activities
- ICEC 2006: The hosting and organisation of next year conference need to be agreed.
- SG16 journal: all member should submit by email : How many papers from ICEC could go into the journal? How many papers are you willing to submit to the proposed journal?
- SG16 Elections: Election procedures need to be defined and agreed upon.
- SG16 Regulations: All members need to familiarise themselves with IFIP bylaws.

## **2. Executive Summary**

### **1- IFIP Matters:**

- The Specialist Group 16 has been invited to submit proposal for upgrade into a Technical Committee (TC).

### **2- SG Matters:**

- Election of Chair and Vice-Chair: both previous holders were re-elected into their respective positions.
- There is hope to increase SG membership up to 25-30.
- Dr Ben Salem has been asked to act as a temporary secretary.
- The launch of a journal related to entertainment computing has been discussed, some actions are required.
- Springer is the official publisher for SG16

### **3- Working Groups Reports**

- WG1: No report
- WG2: Most activities are related to Robocup, would like to investigate entertainment robots
- WG3: We are recruiting more members, we are expanding and increasing activities.
- WG4: A report was handed in. A meeting is scheduled during ICEC2005
- WG5: New group with around 9 active members. Hope to organise a workshop in Wolverhampton. Possible inclusion of members from Art and Design.
- New WG: Prof. Pan has proposed a new WG on edutainment.

## **3. Detailed minutes**

### **Openings by R. Nakatsu:**

**Welcome**

**Asked all participants to introduce themselves**

### **Items of the meeting:**

### **Report of IFIP general assembly**

The meeting was held in Gaborone, Botswana. Last meeting was held in Korea in March. Unfortunately Prof. Nakatsu could not attend.

There is a new member of SG16 Pedro Gonzalez as a representative of Spain. There are now 16 members with 3 more to be nominated. (see document handed in). There is a hope to increase the membership of the SG to 25 to 30. SG16 is supporting two events the ICEC2005 and the workshop on ubiquitous home to be held right after the ICEC conference.

The SG16 was a co-sponsor of ACE held in Valencia in Spain.

Working Groups:

We have 3 working groups, WG16.1 Digital Story telling, WG16.2 Entertainment Robot, and WG16.3 Theoretical foundation of entertainment computing.

There are also 2 working groups: WG16.4 Games and entertainment computing chaired by Jaap van den Herik, and WG16.5 Social and Ethical issues in entertainment computing, chaired by Andy Sloane. These groups have been accepted which means that the SG16 has now 5 working groups. I hope that today Prof. Pan (China) will propose another WG.

What I would like to add is that at the time of the general assembly, I was asked by the chair to submit the proposal of upgrading our SG into a TC on the next opportunity, i.e. next year. We shall return to this issue later during this meeting.

Any Questions:

### **Report of WG activities**

1<sup>st</sup> WG1 (but there is no person representing this group so there is no report).

Issue raised by the Vice Chair: there seems to be some member who are not present are they absent excused or do we have no information as to why they are not here.

In the case of Galia Angelova, she is engaged in another conference that she is organising. Bruno Almandi did not present any excuses, Paolo Ciancarini has presented excuses as to his absence. Pedro Gonzalez Calero had some communication with me. However, Natanicha Chorpothong seems to be a dormant member from whom I have not received any news. As for Donald Marineli, I have received news of prior engagements that prevented him from attending.

There should be some procedure to suggest that dormant member be replaced by the societies they represent after some times.

As for Marc Cavazza, he didn't submit a paper at the conference and I have contacted him about the IFIP meeting. I will try to contact him again regarding attendance to IFIP meetings.

WG2

I was the general chair of the robocup 2005. Therefore the only activity of the WG is related to the robocup activity. Next year robocup will be held in Germany in Bremen. During the Football worldcup. So we have to widen our area of activities from the robocup into more entertainment robots.

Questions:

Rauterberg : Are you intending to document your activities and events.

Proceedings of conference related to Robocup will be published soon.

We shall arrange some workshop for next year on entertainment robotics.

Nakatsu: there is an understanding that this WG2 focus mainly on the RoboCup event.

WG3

We have recruited a couple of new members. We had several events mentioned in the report. It is also a similar situation by linking the WG interests with on-going

events. This is a WG that is starting to get together and planning meeting. However for the US members of the WG travelling seems to be a problem. As they are reluctant to travel solely for the attendance to WG meetings.

Questions:

Nakatsu: How many members are they in this WG

Between 5 and 10. I have a website about this WG, so there is some online activity but to bring all the WG members together is difficult. The solution would be to link the meeting with a conference. It is difficult to get travel funding for just an IFIP WG meeting. So there is a need to combine such a meeting with a conference or other event. To facilitate the justification of the travel. As an example is this meeting being held together with the ICEC conference.

Nakatsu: As I have already informed you I hope to have a discussion with the financial chair with Prof. Kawabata about this issue. I hope that we could reimburse part of your travel and accommodation fees. Such reimbursement is still pending.

WG4

There was a proposal in the report. We intended to have a meeting right here during the ICEC. I hope to be able to organise a meeting tomorrow and I will coordinate this with you. Already there is some attempt to have the next meeting in Turino, Italy in May 2006 during a chess championship and a game conference. In coordination with Paolo Ciancarini.

Questions:

Nakatsu: So when we started the activity of entertainment computing Prof. Ida was very active but unfortunately recently we haven't heard much from him is he still active .

From the floor: yes very active, but no time to come to the ICEC conference.

Kamae: in appendix 1 of the report: I don't understand the concept: commercial game.

All kind of games but in relation with games that are not analytical. It is not a clear separated category. One could look at it as an attempt to ensure that the scope of interests of this WG is wider than just analytical games. However the current proposal need some expansion. In the way that the term commercial games need addressing.

Fels: Develop a classification and theory of games. That would allow for some extension of the scope as there are some games that don't have the right category.

WG5

Not much to report as we are a fairly new WG. We have spent few months discussing the scope of this WG. We have established a mailing list and some online community we have around 9 active member. We had a meeting in York 14<sup>th</sup> April. Where we have tried to attract new members. There is quite some overlap over TC9 with similar but not exactly the same focus. There were 3 members from the TC in that session. The next step would be to organise an event I hope next year you get the WG members together, probably a workshop in Wolverhampton. To get a better coherence of the WG and also to know people. I am please about the name and the scope of this WG.

Remark:

Rauterberg, I am in contact with Geoffrey Goldstein. He is involved in the NL with the rating of video and games and I would like to know if he would be relevant and of interest to get into the committee. I mean in every country there is some sort of censor's board and I would like to know if this would be suitable in this WG.

Sloane: There is some overlap with other groups and we could organise a meeting of this WG during others conferences.

General remarks:

I would like to make some general remark to the WG activities. Springer is the official publisher of the SG16. That means there are not much cost due to publishing. As we get up to 50 free copies. And you get a volume in LNCS. This could lower the barrier to organise an event.

Sloane:

There is another scheme within IFIP to deal with Springer where it is relatively cheap and it works out approx EUR50 per volume but it is not part of LNCS. There are some confusion about the 2 different routes. Most other IFIP conferences are published out of the LNCS.

Rauterberg: IFIP want a consistent book series, and Springer wants some content for the LNCS. So there is some conflict of interest. AS IFIP is not so happy about the LNCS as it is not a branded series but rather a Springer publication with the IFIP logo.

Pan: Asked for further details about the procedures, Rauterberg gave the details about how to get LNCS publication of proceedings.

Nakatsu : for WG5 the title is ethical issues, are you not planning to include people from art design area.

Sloane: yes we are open

Nakatsu: Hence me inviting 2 people from an art background, is to widen the ... It could be a good idea to have a WG focusing on art.

Rauterberg: which WG is the design of game included in.

Nakatsu: to which WG should artist belong to. If they want to join my impression there is no adequate working group. One idea is to ask on of them Roy Ascott or Naoko to organise a new WG.

Naoko/Roy Ascott: Maybe if we joined on of the WG should make it more explicit and

Nakatsu: Anyway this is my request to both of you to think about it. If you agree please submit a proposal by email so we can discuss it further.

I think 5 WG is enough.

Sloane: TC 13 has only 3 WG it is not very large

Rauterberg: is WG turning into a TC if we have some promising future, then we have some chance of turning into a TC14.

I forgot to add one important topic, that is the election of a new chair. According to the bylaw the mandate of a chair lasts only 3yrs. This WG has lasted for more than 3yrs.

So we need to elect a new chair and vice chair.

So today we need to hold the elections. But the secretary position can last forever.

For me 3yrs have been long but I could carry on another term of 3yrs.

3- Proposal of a WG

Prof. Pan

I would like to propose a new WG for edutainment as the integration of education and entertainment.

There are two stream: education with entertainment.

We have 2 societies: learning and games. We are trying to bring people from the 2 societies to have some discussion to have a game more educational and education more fun.

The scope of this WG will be:



VR for education  
E learning  
Digital museum

I have spoken to Ruth Aylett, Yangshen Wong, Holger Diener, Nuno Correia, Adrian Cheok.

Also actually our group has cooperation with universities with European-Asian project of e-learning and VE, a EU china workshop to be held in China. We had people from education, games and entertainment.

Next year IFIP we will have edutainment conference edutainment 2006. And I hope that this conference can be co-sponsored by SG

Hopefully you can promote this event in your country, we are trying to get more international contributions

Comments:

Rauterberg: You should contact TC3 because maybe there is a WG in that TC that focus on your scope. You need to check, so either you join them,. Collaborate with them or make your profile sufficiently distinct

Sloane: there is a possibility of a join WG like TC9.5 and TC11.2, if you make your scope sufficiently different it is useful to have members from other TC.

Make sure to check if first as the authorisation with come from a technical assembly and they will ask this question.

Nakatsu: so you are going from education to entertainment or from entertainment to education.

Pan: we want to approach it from entertainment and have educational games.

Nakatsu: I will give you the names of the people that you need to contact.

Rauterberg: May be the information is on the IFIP website. Where you will find the contact details.

I would like to make a formal proposal by email to all our members of this SG. Please contact the adequate people.

Remark: Yang: I am concerned about having so many conferences, workshops being organised in this area are we not running too many events. Are we supposed to run something larger than ICEC?

Rauterberg: yes it is the objectives of the WG, it is about organising conferences and other events.

If the ICEC is our main conference why not have the WG activities synchronised with this event.

Nakatsu, let go to the topic on Journal on entertainment computing

Rauterberg: I was approach about editing a handbook about entertainment computing from Elsevier. I was then approached about setting up a journal about entertainment computing. We started the procedure and contacted many people including many of you. We then contacted Elsevier. Simone... did a marketing tour of the US and then decided that there insufficient potentials. As the journal has to be viable and to set up a journal you need from a couple of year some committed authors to get submission flow going. The assessment Elsevier got... We changed the title to International Journal of entertainment computing into the Nature of entertainment computing and approached Gloria Davenport again this year to ask her whether she would consider launching the journal at MIT=Press and she promised to come back about this but insofar we had no feedback from her.

In the meantime the ACM has started a transaction on games and entertainment.

Cheok: But you know that transactions are extremely difficult to publish in so I think that even if they have the transactions which is of very high level, there is still room for a journal. They have a magazine on comp. ent. And there is room.

Rauterberg: The scope of our journal is to have a boarder scope than the currently published journals in the field of entertainment.

Cheok: I am surprised that Elsevier assessed that such a journal wouldn't be liable.

Rauterberg: depends on who you are talking to.

The problem is that these journals are cannibalising from other journals and also why shall an author publish in a new journal rather than in an established journal which has an overlapping subject like for example on robotic.

I think it is worst to pursue on this topic of establishing a journal with a broader scope than established journals.

Nakatsu: have you got still contact with Elsevier

Rauterberg: they explicitly said they are not interested

Ascott: there are journals of societies and we could try publishers like intellect as they publish many societies journals .

Rauterberg: the NL are driving to establish public availability of academic output. There is an international initiative which promote this initiative to give access to academics to published material. This means that publications that comes out of research organisations and universities should be available for free. With the Internet and other online resources this should be feasible rapidly. The issue is not to replace the publication in journals but to make it available to academics.

Ascott: isn't it replacing journal publications.

Rauterberg: the issue is just about ensuring that the copyrights do not go to a publishing house but stay with the authors and the process is still the same (i.e. peer reviewed) that implies that the material should be freely available.

Uiterwijk: If the journal is about establishing a community and you can't find a publisher you could consider self publishing, at university costs for example.

Nakatsu: Obviously having our journal is very positive but this will give us a lot of work, including long conversations. But we do want to continue

Rauterberg: Well the issue is to see if we want to approach other established published according to the will of the majority of this SG.

Nakatsu: there are already many journals that cover some narrow scopes within entertainment, but to have a journal that address the whole scope of entertainment is something very difficult and so far there are no journal.

Rauterberg: Yes I would like to know what sort of commitment this SG member are willing to put., In other words how many journal papers this SG members are willing to submit.

Cheok: the problem is that with a new journal you are publishing in not established journals and this does not count much

Rauterberg: then we have to keep referencing all the papers published in this Journal to raise the profile and keep citing it.

Cheok: this seems to be strategy forwards.

Rauterberg: we are resenting a lot of people and our network is growing.

Sloane: were there any economic argument put forwards by the publishers?

Rauterberg: This is related to their answer, they assess the potential of the paper flow, and if the leadings research groups in the US say that they do not publish at all, then the publishers are under the impression that the entertainment topic is not mature enough to need a dedicated journal. IF the only issue is the impact

factor of a journal then we can ensure that we do a lot of citation from the journal and this should raise the ranking and the impact factor of the journal. When I asked how many papers shall we be expecting the variation between people that I asked was very broad: from 10 to 1000s.

The answers I got were very promising. But the issue is how many papers are we willing to submit for the journal and we are facing the situation that Adrian had already address

Fels: one other way is to approach a conference that wouldn't necessarily have it submission go to a journal paper, and if we could mine these people by asking them to make few revisions of their conference papers we could increase the submission. If we do that in few conferences we could significantly increase the submission rate.

Ascott: We get a steady flow of submission because we are overlapping several field. We just mine certain conferences and we just ask authors why they shouldn't submit to the authors yet.

On the other hand if we have an area that is not covered by a journal, then I don't see why this SG should not go for it and establish a journal.

Rauterberg: For most of us the decision is shall I carry on submitting to an established paper or to this new journal that we are setting up.

Ascott: yes but you could establish and identity through this new journal.

Rauterberg: We have already the conference series, the question is how many of the ICEC proceedings could be forwarded into a journal publication. So what is our personal judgment about how many conference papers could go into a journal publication. I think all the members of this SG should consider this issue and let me know by email.

Nakatsu: we have to ask from each member of this WG should submit a paper with the next 6 months.

Tosa: will there be something like the ACM portal?

Rauterberg: there will be an online version, but will there be a paper version

Tosa: Nowadays we are more concerned about having the paper on the internet rather than on a paper.

Rauterberg: right now we already have the ICEC proceeding online available through the ACM paper, at least the abstracts.

There should be a evaluation from this SG members about how many of the ICEC proceeding papers could be forwarded to the journal.

The second point of action is that Nakatsu and Rauterberg are investigating further the opportunities for the journal paper by contacting publishers. The decision...

Yang: is this a decision about this journal or are we having a discussion

Nakatsu: please answer our emails regarding this journal.

Rauterberg: In fact I will only act upon this issue if I get emails from this SG members.

Fels: In fact this is your answer by a fixed date you have to have all the emails from the members of this SG with answers to the 2 questions: how many papers from ICEC could go into the journal and how many papers are we willing to submit to the journal

## **ICEC2006**

Nakatsu: this is a major subject so I suggest we should talk about it during the diner later on this evening.

Rauterberg: as a back up strategy all of us should think of a person that would be interested by organising ICEC2006

Ideally we would have the next ICEC in North-America

**Upgrade from SG to TC.**

Nakatsu: I think the activities of this SG are growing and I was approached by the Technical assembly chair to upgrade the status of this SG. But there was time limitations to do it right away as I wanted to have a discussion with you as members of this SG.

Rauterberg: They are rather interested and there seems to be some of them that are supporting us.

Nakatsu: Once we submit a proposal there will be many options

Sloane: I think it is time for this SG to move into a TC status. There is a good range of activities and good WG, with useful publications and work.

If it becomes a TC then the WG can become developing even more their specialist subjects and activities.

Nakatsu: let's start our work of upgrading into a TC.

Rauterberg: you could ask The chair of the other TC about this

Nakatsu: there are several things to do, we need to increase the national member of this committee.

The next thing is to promote the activities of the WG. It seems that some WG are doing very well, but I am somewhat concerned by WG1, although this is a very interesting one. WE have to discuss on this issues with Cavazza.

Rauterberg: Or we have to replace him.

Nakatsu: a WG should be a real WG not a dormant one.

Uiterwijk is the TC STATUS approved at the general assembly?

Nakatsu: no it is decided at the technical assembly and then agreed into the general assembly.

Rauterberg: detailed explanations of IFIP organisation and working methods, ie differences between technical assembly, general assembly....

Uiterwijk: you need a SG to establish itself within 5yrs.

Rauterberg: yes within 5 yrs we have to demonstrate that we are viable, attractive and active.

Nakatsu: what we have to decide if we want to move into a TC. ARE there any objects? No OK, then lets start.

Nakatsu: we have 10 minutes left so lets go for the elections of this SG chair and vice-chair. How does the nomination and election go?

Rauterberg: it depends.

Nakatsu: are there any nomination?

Sloane: I'd like to nominate the incumbents to carry on

The floor: yes

Cheok lets do it by applause

Everyone applauded, and thus both chairman and vice-chairman have been re-elected to their respective positions.

Rauterberg: we need to establish procedures on how to elect the positions available in this SG. The secretary should get involved in this procedure. Also we need to sort the voting procedure, the electorate selection and who is representing which country.

Sloane: the chair can be national representative but there could be a second representative while the chair is in office and how ever there are many rules and exceptions about this.

Rauterberg: The IFIP bylaws should be available to everyone and please familiarise yourselves with it.

End of the meeting and thus we close this event.

Lets go for diner.

**Note from the SG secretary:**

The correct name for commercial games is consumer games. (ref. keynote speech of Tesuji Baba, 20<sup>th</sup> September).

## **7.m. Working Group 16.1 Report**

## WG 16.1 Digital Storytelling

### Chair:

Prof Dr Marc Cavazza (Teesside University, UK)

### Scope

Storytelling is one of the core technologies of entertainment. Especially with the advancement of information and communication technologies (ICT), new type 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 need 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.

### WG16.1 Activities

**Already there are several conferences/workshops on digital storytelling. To establish a link between IFIP and these conferences/workshops is one of the main activities of WG16.1.**

### Members (proposed)

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## **7.n. Working Group 16.2 Report**



Pending Delivery

## **7.o. Working Group 16.3 Report**

## **WG 16.3 Theoretical Foundation of Entertainment Computing**

URL: <http://www.org.id.tue.nl/IFIP-WG16.3/>

### **Aims**

- For the benefit of society, to promote visibility and to increase the impact of research and development in the entertainment computing area, especially in the fields defined in the scope of this working group.
- To promote quality and relevance of academic and industrial research and development in the entertainment computing area.
- To promote ethical behavior and appropriate recommendations or guidelines for research related activities, for example, submission and selection of publications, organization of conferences, allocation of grants and awards, and evaluation of professional merits and curricula.
- To promote cooperation between researchers and with other established bodies and organizations pursuing the above aims.
- To contribute to assessing the scientific merits and practical relevance of proposed approaches for entertainment technology and applications.

### **Scope**

- The notion of entertainment technology has evolved to include systems and applications that can be used for entertainment purposes in a wide spectrum of interactivity, education, and any other beneficial services.
- The group's interests cover formalisms, models, architectures, techniques, empirical investigations and methodologies for the purpose of designing, realizing, and assessing such entertainment technology.
- These currently include in particular:
  - \* new models and theories for entertainment applications;
  - \* new concepts and techniques, e.g. narratives, empirical effects
  - \* impact of new technologies on human behavior
  - \* understanding, reuse and interoperation of existing applications
  - \* advanced user interfaces and emerging interaction styles
  - \* new methodologies for building entertainment applications

## Activities

IFIP Working Group 16.3 (Theoretical Foundation of Entertainment Computing) continues discussion about how to investigate the general problems of entertainment computing products and services. In several workshops at international conferences (e.g. [ICEC](#)) and task forces that have taken place, the aim has been to explore issues and enhance the theoretical foundation.

January 25, 2005, NGI workshop in Eindhoven, The Netherlands  
May 11, 2005, DIGITAINMENT seminar in Leiden, The Netherlands  
Nov. 11 2005, 1st European Workshop on DESIGN & SEMANTICS of FORM & MOVEMENT (DeSForM), Newcastle upon Tyne, UK  
September 21, 2006, workshop in Cambridge, UK (planned)

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## **7.p. Working Group 16.4 Report**

# Report for the Working Group WG 16.4:

## Games and Entertainment Computing

*Chair: Prof.dr. H.J. van den Herik*

### **General**

The working group has been established. Some potential members have been addressed and some will be in short term.

### **IFIP SG 16 meeting**

Dr. J.W.H.M. Uiterwijk attended the IFIP SG 16 meeting, September 19, 2005, Sanda, Japan, as a replacement for the WG 16.4 chair, Prof.dr. H.J. van den Herik. Some remarks concerning the workgroup have been taken into account.

### **WG 16.4 meeting**

A WG 16.4 meeting has been held at September 20, 2005, Sanda, Japan. The minutes of this meeting are attached.

### **Website**

A website for the working group has been built. Its address reads <http://www.cs.unimaas.nl/IFIP-WG16.4/index.htm>

=====  
Meeting WG 16.4  
September 20, 2005  
Sanda, Japan (during ICEG2005 conference)

Present: Jos Uiterwijk (chair), Ryokei Nakatsu, Matthias Rautenberger

Opening 14:10

Since only three people were present it was decided to have a general discussion. The next topics were addressed.

#### 1) Membership

It should quickly become clear who is a member of this WG, to assign a secretary, and to recruit new members. They should be educated members based on expertise, recognized in their fields. Moreover it is suggested to have a mixture of people from academics and industry. Some names were suggested.

#### 2) Procedures

Actions and possibilities of a WG are governed by IFIP rules. These can be found on the IFIP website.

#### 3) Events

It was suggested that an important contribution of the WG should be the organisation of events. These can be new events, such as a workshop during the Computers and Games conference, May 2006, in Turino, but also existing events can be brought under auspices of the WG/IFIP. IFIP then also can be a (co-)sponsor. Note that there is no need for exclusive IFIP auspices and sponsoring. Also note that any WG event should be authorized by the SG/TC chair (Nakatsu).

#### 4) Publications

The benefits for publishing proceedings of events in LNCS are stressed (first 50 copies

free of charge). Moreover, it would be good to have some journal to behave as a forum for the WG community.

5) Website

It was suggested to create as soon as possible a website for the WG, with links from and to the IFIP websites.

6) Any other business?

No.

Closing 14:45

## **7.q. Working Group 16.5 Report**



## **Working Group 16.5**

### **Social and Ethical Issues in Entertainment Computing**

The Working group was founded around the beginning of 2005 with the following aims and scope.

#### **AIMS**

- 1) Foster the ethical design, development, implementation, applications and use of entertainment computing.
- 2) Encourage surveys and studies on social, ethical and cultural aspects of entertainment computing.
- 3) Develop methodologies for studying social, ethical and cultural implications of entertainment computing.
- 4) Establish a global platform for interaction, exchange, joint initiatives and co-operation between such groups as:
  - the end users of entertainment computing
  - industrial developers and designers of entertainment computing
  - policy, decision making, social and consultative bodies
  - academics and scientists.

#### **SCOPE**

The social and ethical implications of entertainment computing including:

- actual and potential human usefulness or harm of entertainment computing
- social impact of these technologies
- developments of the underlying infrastructure
- rationale in innovation and design processes
- dynamics of technology development
- ethical development
- cultural diversity and other cultural issues
- education of the public about the social and ethical implications of entertainment computing, and of computer professionals about the effects of their work.

WG 16.5 explicitly cares about the position of, and the potentials for, vulnerable groups such as children, the less-educated, disabled, elderly and non-employed people, cultural minorities, unaware users and others.

## **Membership**

### **Chair**

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CA	Claire Dormann	GB	Christopher Zielinski	US	Brad Bushman
ES	Porfirio Barroso Asenjo	HR	Suzana Stojakovic-Celustka	US	Jeanne Funk
GB	Lynne Baillie	JP	Ryohei Nakatsu		

## **Meetings and conferences**

An initial meeting was held during the IFIP WG9.3 conference at York in April 2005 where a session track was dedicated to the new WG. This generated interest and debate from the participants and strengthened the links between the two working groups (there are a number of common members).

## **Future Agenda**

The next meeting is scheduled to take place during ICEC2006 at Cambridge in September.

A WG workshop/conference is also under discussion for 2007.

Election of vice-chair and secretary is also to be held soon.

Andy Sloane

Chair WG 16.5

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