
ENTERTAINMENT COMPUTING

Technologies and Applications

IFIP - The International Federation for Information Processing

IFIP was founded in 1960 under the auspices of UNESCO, following the First World Computer Congress held in Paris the previous year. An umbrella organization for societies working in information processing, IFIP's aim is two-fold: to support information processing within its member countries and to encourage technology transfer to developing nations. As its mission statement clearly states,

IFIP's mission is to be the leading, truly international, apolitical organization which encourages and assists in the development, exploitation and application of information technology for the benefit of all people.

IFIP is a non-profitmaking organization, run almost solely by 2500 volunteers. It operates through a number of technical committees, which organize events and publications. IFIP's events range from an international congress to local seminars, but the most important are:

- The IFIP World Computer Congress, held every second year;
- open conferences;
- working conferences.

The flagship event is the IFIP World Computer Congress, at which both invited and contributed papers are presented. Contributed papers are rigorously refereed and the rejection rate is high.

As with the Congress, participation in the open conferences is open to all and papers may be invited or submitted. Again, submitted papers are stringently refereed.

The working conferences are structured differently. They are usually run by a working group and attendance is small and by invitation only. Their purpose is to create an atmosphere conducive to innovation and development. Refereeing is less rigorous and papers are subjected to extensive group discussion.

Publications arising from IFIP events vary. The papers presented at the IFIP World Computer Congress and at open conferences are published as conference proceedings, while the results of the working conferences are often published as collections of selected and edited papers.

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Preface

This volume is the Proceedings of the First International Workshop on Entertainment Computing (IWEC 2002). Entertainment has been taking very important parts in our life by refreshing us and activating our creativity. Recently by the advancement of computers and networks new types of entertainment have been emerging such as video games, entertainment robots, and network games. As these new games have a strong power to change our lives, it is good time for people who work in this area to discuss various aspects of entertainment and to promote entertainment related researches. Based on these considerations, we have organized a first workshop on entertainment computing.

This workshop brings together researchers, developers, and practitioners working in the area of entertainment computing. It covers wide range of entertainment computing such as theoretical issues, hardware/software issues, systems, human interfaces, and applications. The particular areas covered by the workshop are:

1. Computers & Games

Computer game algorithms, modeling of players, web technologies for networked games, human interface technologies for game applications.

2. Home/Arcade Games and Interactive Movies

Video game computer technologies, motion capture technologies, real-time computer graphics technologies, interactive movie systems, story generation for games/movies, human factors of video games.

3. Entertainment Robots & Physical Systems

Entertainment robot systems, toy robots and pet robots, entertainment robots for man-machine interfacing, physical games and mental games

4. Music Informatics

MIDI and its extensions, acoustic computation, computer music for home entertainment, new music instruments, sound and voice for entertainment

5. Sociology and Psychology of Entertainment

Modeling and representation of emotion; mind model for entertainment, psychological aspect of immersion, future of entertainment; social significance of entertainment

6. Virtual Reality Technologies for Entertainment

Generations of virtual entertainment environment, interactions in virtual environment, mixed reality technologies for entertainment

The program committee received more than 70 submissions from 12 different countries in Asia, Europe, North America and South America. Each submission was reviewed by at least three PC members. This volume contains 63 contributed papers and 2 invited papers presented at the conference. We are very grateful to these members who are listed on the following pages, for their time-consuming and hard work in the judging process. We also thank the invited speakers for sharing with us their vision of the future.

We hope that the reader will find in this volume many motivating and enlightening ideas. Also we wish that this volume would contribute to the development and further awareness of this new and interdisciplinary field of Entertainment Computing

July 2002

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