



## CALL FOR PAPERS

### COMMUNICATIONS of the ACM



#### *Entertainment Networking - Recreational Use of IP Networks*

#### **Special Section to Appear in November 2006**

##### **Guest Editors:**

Prof. Cormac J. Sreenan,  
University College Cork,  
Cork, Ireland  
cjs@cs.ucc.ie  
<http://www.cs.ucc.ie/~cjs>

Dr. Kobus van der Merwe  
AT&T Labs – Research,  
Florham Park, NJ, USA  
kobus@research.att.com  
<http://www.research.att.com/~kobus>

##### **Background and Purpose**

Traditional entertainment networks developed separately from networks used for communication and commerce. For example until recently, cable TV networks were one-way broadcast infrastructures, solely aimed at distributing analog TV signals. Today many of these same cable infrastructures have been upgraded to two-way all-digital facilities providing broadband access to the Internet. Amongst the many applications making use of broadband IP connections are streaming applications, some of which carry content similar in concept (if not in quality) to TV.

Recently there has been a significant increase in the use of the Internet for entertainment and recreational purposes, driven and facilitated by increased penetration of broadband access. Entertainment uses of the Internet include downloading of media content for subsequent consumption (e.g., music and or video), using the Internet as a delivery mechanism for live events, and multiplayer games. As access speeds increase it is likely that new applications will emerge (e.g., augmented virtual reality) that will introduce significant challenges for network designers.

This Special Section of Communications of the ACM will focus on entertainment networking and all aspects of the recreational use of IP networks. Many entertainment applications have more stringent network requirements (e.g., in terms of tolerance for jitter or their bandwidth requirements) than other applications. Infrastructure support of entertainment-style Internet applications is therefore of specific interest. Contributions from practitioners reporting experiences from an actual development or operation of such applications are especially encouraged. Regular papers describing new networked applications, analysing new problems or presenting new solutions will be very welcome, as will short papers, including those describing innovative new commercial ventures related to the subject of the call.

Specific topics of interest include:

**Content Distribution Networks (CDNs):**

- architecture, operation, performance
- evolution, new direction
- audio/video/music distribution
- large scale use/case studies

**Massive Multiplayer Online Games (MMOGs):**

- architecture and application frameworks
- operation, infrastructure, performance
- evolution/new direction
- gaming frameworks/middleware
- large scale use/case studies

**IP Television and Residential Video-on-Demand:**

- enabling broadband access technologies
- media storage and distribution
- integration of Internet and TV distribution
- networked personal digital video recorders
- large scale use/case studies

**Schedule:**

Papers Submitted to Guest Editors:	<b>May 1 2006</b>
Notification to Authors:	June 21 2006
Revised Paper to ACM:	July 12 2006
Publication:	November 2006

**Submission Details:**

Papers should be sent by email to both Guest Editors on or before the submission date. To target the broad readership of the Communications of the ACM, two types of papers are solicited – regular short papers (3000 words maximum) and extended abstracts (500 to 1000 words). Submitted papers must be single-column, double-spaced, and in PDF. All papers will be subject to a peer-review process.

The Guest Editors would welcome early contact from those intending to submit papers or articles.

Prospective authors are directed to the ACM “Information for Authors” page:  
[http://www.acm.org/pubs/cacm/guidelines/infoauthors\\_02.html](http://www.acm.org/pubs/cacm/guidelines/infoauthors_02.html)