Special Issue on Adaptive Media Streaming

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Recently, traditional TV services, Internet TV and mobile streaming services have started converging, and it is expected that this convergence trend will continue with other services. Additionally, new emerging multimedia services are being introduced. These developments in the multimedia arena mean that various content and services will be delivered over different networks, and the users expect to consume these services using those networks, depending on the availability and reach of the network at the time of consumption. This massive heterogeneity in terms of terminal/network capabilities and user expectations requires efficient solutions for the transport of modern media in an interoperable and universal fashion. In particular, in recent years, the Internet has become an important channel for the delivery of multimedia. The Hypertext Transfer Protocol (HTTP) is widely used on the Internet and it has also become a primary protocol for the delivery of multimedia content.

Additionally, standards developing organizations (SDOs) such as MPEG have developed various technologies for multimedia transport and encapsulation, e.g., MPEG2-TS (Transport Stream) and MPEG4 file format. These technologies have been widely adopted and are heavily deployed by various providers and in different applications and services, such as digital broadcasting, audio and video transport over the Internet and streaming to mobile phones, etc. At the same time, many other SDOs such as the IETF, IEEE, and 3GPP have provided various protocols to deliver multimedia content packetized or packaged by such MPEG transport technologies.

This special issue solicits novel contributions and breaking results on all aspects of Adaptive Streaming of Multimedia.

The main objectives of this special issue are (but not limited to):

- ☐ *Efficient delivery of multimedia content in an adaptive, progressive download/streaming fashion (incl. over HTTP);*
- ☐ *Support for streaming of live multimedia, to mobile users, low-capacity channels, bandwidth variations, as well as multipoint streaming over heterogeneous channels or paths;*
- ☐ *Efficient and ease of use of existing content distribution infrastructure components such as CDNs, proxies, caches, NATs and firewalls;*
- ☐ *Efficient content generation (encoding) techniques for content delivery (e.g., segmentation);*
- ☐ *Detailed performance analyses of deployed standard technologies or that uncover and rectify major problems in the behavior of such technologies;*
- ☐ *Measurement techniques for collecting consumption data (both application and transport-level performance metrics, viewer behavior, etc.) in content delivery;*
- ☐ *The effects of adaptation techniques on the end-user quality of experience;*
- ☐ *Viewer experiences from large-scale experiments and events (such as Olympics, World Cup, etc.).*

Submission Procedure

Prospective authors should prepare their submissions in accordance with the rules specified in the 'Information for Authors' section of the JSAC guidelines (http://www.jsac.ucsd.edu/Guidelines/info.html). Papers should be submitted through EDAS (http://www.edas.info). Prior to submitting their papers for review, authors should make sure that they understand and agree to adhere to the over-length page charge policy presented in the JSAC guidelines.

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