Summaries • of the papers published in this special issue

MediaNet 2015 tech forecast:
Ultra HD TV over IP media network

Keywords: 10 gigabit Ethernet, 4K TV, 8K TV, HDR, Software Defined Networking, retina display, Ultra HD TV

As the ever changing media consumption is evolving, new generation of audiovisual user experience is coming. Ultra HD TV aims to be the next step towards „surrounding" visual entertainment. Users meet higher and higher resolution displays on smartphones, tablets, PCs and TVs. High Dynamic Range Luminous Intensity, Wide Color Gamut and higher frame rates make the media quality better. Fast changing in the presentation of media content force quicker innovation in the production and distribution side.

New media, new editors, and the right to media freedom

Keywords: freedom, intermediaries, search engines, internet service providers, over-the-top services

The concept of media freedom, in modern European philosophical and legal thinking, is constantly changing. This concept is about to be redefined once again, thanks to new participants that have become active players in transmitting various content to the general public. In this paper we wish to examine whether it is justified to rethink the notion of media freedom, having regard to these new participants.

What is speech technology and why is it important? – First-hand Hungarian success stories

Keywords: digital personal assistant, Hungarian TTS, Hungarian ASR, speech technology, applications

It was presented in the paper that speech technology is an indispensable component of one of the great business opportunities of the near future – the topic of personal digital assistants. Technology areas we reported need significant research in Hungary in order to see such operational solutions for the Hungarian language. At the same time an overview is given about the latest speech technology systems for Hungarian and such applications were proposed that can be created on the basis of already existing Hungarian speech technology solutions.

CLOUD TV –
How operators make use of a global technology trend

Keywords: cloud services, QoS, Pan-IP, evolution of TV platforms, virtualised platforms, DT TV Service Center

While the historical challenges of TV delivery (quality, technology, cost efficiency) remain unchanged, the emerging cloud technology, combined with an international large scale footprint create a compelling event for Deutsche Telekom to embrace a significant paradigm shift and invest in a future roll-out of a pan-European cloud based infrastructure.

Free Viewpoint Television:
New perspective in 3D video streaming

Keywords: 3D video, Free Viewpoint Video, streaming

Free-viewpoint video is a new type of interactive multimedia service allowing users to control their viewpoint and generate new views of a dynamic scene from any perspective. The uniquely generated and displayed views are synthetized from two or more high bitrate camera streams. The main components of the FVV approach are the scene acquiring, video coding, streaming, view synthesis and display. The aim of this paper is to overview the process chain of the FVV service.

Accomplishments in the field of multipath communication technologies

Keywords: multipath communication, IEEE 1905, MPTCP, GRE in UDP tunnel, vertical handover

In recent years multipath communication technologies became a very active field of research. Nowadays several devices have multiple network interfaces, multiple gateways to the Internet. In this we present the MPT-GRE – Multipath Communication Library developed at the University of Debrecen, which provides support for multipath communication in the network layer, and we give a short overview of the similar solutions. Among other features, the MPT software is capable of using multiple paths in a redundant fashion. We present this funcionality through a simple test case: handover between the Wi-Fi/3G mobile internet connections of a notebook during a videostream transmission.

The visible radio

Keywords: media convergence, radio broadcasting, visual radio

Visual radio is one of the examples of media convergence. The article presents the origin of this convergence process and its definition, followed by domestic and international examples that demonstrate the influence of this process on the public service and commercial radio broadcasting.

Big Data – large volume analytics with speed

Keywords: analytics, hadoop, business intelligence

The reasons for the rise of big data are numerous. It began as a practical answer to the scalabilty problem of systems handling very large datasets. With the exponential rise in the amount of digitally stored data worldwide, it became obvious that the applicability of the technology is much broader than it was originally thought. It became a tool in the hands of analysts who were able to create new kinds of analysis quickly, more easily and with affordable cost. Help is at hand with some of the IT companies offering complete sultions including hardware, networking, software layers and who are able to deliver and support a complete solution.

Personalized content recommendation for IPTV and OTT systems: a methodological overview

Keywords: recommender systems, IPTV, OTT, data mining, machine learning

The demand for recommender systems in IPTV and OTT market has been significantly increased since the Netflix Prize. The personalized targeting of the ever-increasing linear and non-linear contents is challenging for both data mining and technology side. The present study aims at describing recommender service as a data mining solution and corresponding research topics for IPTV and OTT environment using CRISP-DM methodology.