

Digital Television and the Open Mediaspace

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POSITION PAPER

The digitalization process in society has created a tremendous potential for the evolution of new forms of media, by turning the media environment that used to be formed of rigid, strictly controlled channels, into a flexible, open Mediaspace.

The Mediaspace is based on the computer, a metamedium that can be programmed to support any type of media, and on the Internet, the global communications network that is open and being made accessible to everyone. The computers take many forms, such as desktop and laptop computers, PDAs, mobile phones, set-top-boxes and digital television sets. The Internet extends to these computers also in many forms, through fixed telephone cables that have been taken up by ADSL, dedicated Internet cables, WLAN, wireless GPSR or UMTS signals, or digital broadcast transmissions, such as DVB and DVB-H.

However, in this flexible Mediaspace, the digital television has remained as a system of rigid channels and fixed functionality. The digital television system – its hardware, networks, economics, production and distribution systems – has been designed by the actors in the television business who have quite naturally seen the new digital system as a continuation of their existing business and activities, and have overlooked or knowingly dismissed the potential for new arrangements in the social production and use of media that the new technologies and distribution topologies could have offered, if configured differently.

The world around the digital television system, however, has evolved to embrace new interesting possibilities. Digital production tools, extending from built in webcams in laptops, digital still and video cameras in mobile phones to HDTV video cameras costing a few hundred Euros, combined with cheap editing software in home computers have made individual video production a real and massive source of audiovisual media in society.

Countless YouTube-like services and peer-to-peer networks have created an efficient and free infrastructure for the distribution of any type of media globally. As these services exist in the open ecosystem and often offer easy-to-use construction interfaces that let other services embed their offerings in new formats, they have become building blocks for new media applications.

Social media that combines media production with social enrichment features that allow communities of people to select, recommend and comment media, has co-evolved with the massive diversity of content production and made it possible for the "long tail" of user created media to find its communities of interest, and as these communities emerge, they further motivate their members to engage in media production and social processing that is meaningful for them.

This is the most interesting area of media evolution at the moment, but unfortunately, because of its rigid and controlled design, the digital television has been almost completely left out of this development and confined in its existing configurations.

While the DTV industry has shown little signs of interest to change the digital television system, it appears that the open world may evolve a way around the rigid system, as there is an increasing repertoire of hardware and software solutions for replacing the limited functionality set-top-boxes with open, programmable computers that open up all of the possible media channels and distribution and selection systems to television audiences. Examples of these include the AppleTV, Elisa, Boxee or XBMC.

The large commercial content owners have recognized the potential of Internet distribution of their content, and hence audiences are getting new ways to access also their offerings through the open system. Eventually, this development may lead to a situation where the open replaces the closed system.

For the development of the future digital television, this is a real challenge. The power of the system designers to control the way how their system is embedded in the everyday life and the media environment is disappearing. It appears that it would be a better strategy if the the next generation of digital television would be designed to take advantage of the potentials of the Mediaspace.

In terms of interaction, inclusion and accessibility, embracing an open architecture and designing for an open digital television ecosystem will also open up the possibility of open design for custom interfaces and interaction models for and by specific communities. A more open television environment will have the potential to cater for specific communities also in terms of both content and functionality.

While we are not specifically addressing the inclusive access and interaction features of digital television, we propose that it is necessary to see that digital television as it is today, is seriously constrained as a media environment to passive consumption of media, and that upgrading the television to become a universal platform for open media interaction – viewing, navigating, selecting, recommending, organizing, commenting and producing – is a central concern for all television user communities.

In our contribution to the workshop, we would like to

- present examples of what kinds of new media practices the next generation of digital television should facilitate
- suggest design and architectural requirements for the next generation of DTV to make this possible
- discuss these issues with the other participants.