Deliverable 7.8  Newsletter

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Work Package 7: Dissemination

LinkedTV
Television Linked To The Web

Integrated Project (IP)
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<td>The LinkedTV consortium</td>
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Abstract (for dissemination): This deliverable provides the first year newsletter of the LinkedTV project.

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1 PU = Public  
PP = Restricted to other programme participants (including the Commission Services)  
RE = Restricted to a group specified by the consortium (including the Commission Services)  
CO = Confidential, only for members of the consortium (including the Commission Services)
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1 LinkedTV Newsletter

Dissemination is very important in the LinkedTV project. Hence to mark the first year of the project activities and reflecting on its results and achievements, a 4 page newsletter has been produced which can be distributed in print form at events and to interested contacts, as well as provided online via the project website http://www.linkedtv.eu/newsletter.

1.1 History of the document

Table 1: History of the document

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2 Attachment: Print version of Newsletter (Issue 01)
LinkedTV is an integrated and practical approach towards experiencing Networked Media in the Future Internet!

Networked Media will be a central element of the Next Generation Internet. Online multimedia content is rapidly increasing in scale and ubiquity, yet today it remains largely still unstructured and unconnected from related media of other forms or from other sources.

This cannot be clearer than in the current state of the Digital TV market. The full promise and potential of Web and TV convergence is not reflected in offerings which place the viewer into an internet closed garden, or expect PC-like browsing on a full screen Web, or offer interesting new functionalities which however lack any relation to the current TV programme.

Our vision of future TV/Television To The Web (LinkedTV) is of a ubiquitously online cloud of Networked Audio-Visual Content decoupled from place, device or source. Accessing audio-visual programming will be “TV” regardless whether it is seen on a TV set, smartphone, tablet or personal computing device, regardless of whether it is coming live from your local broadcaster, as VOD from your local news to Open Heritage, or even “surfing the Web” or “watching TV” will be more likely to be used on a personal, tablet or personal computing device, regardless of how the TV world, in turn, there is an ongoing struggle for co-existence of the classical, broadcast material, enrichments and interactions offers. While pure Web content may be transferred to the main screen alongside/replacing the broadcast material, enrichments and interactions will be more likely to be used on a personal, second screen close to the viewer.

FutureTV workshop outcomes: sharing our vision

LinkedTV held on the pre-conference day of the EuroTV 2012 the 3rd edition of the Future Television Workshop. After a full program of talks, we finished with an interesting debate and a group discussion around what Future TV would be like. The outcomes have been summarized on this poster. Drawing on keynote speaker Silvia Pfeiffer, we consider the possibilities of HTML5 for the future of television, yet began by noting the probable co-existence of the classical, broadcast TV with a new generation of Web-based TV offers. While Web TV will continue to grow as an alternative source of video material, many attendees defended the superiority of TV as learn-, turn-off-and-relax viewing. As the Internet makes our daily content experiences ever more lean forward and interactive, this traditional role of TV will remain relevant to consumers. In the Web TV worldview, in turn, there is an ongoing struggle between main screen offers and second screen offers. While pure Web content may be transferred to the main screen alongside/replacing the broadcast material, enrichments and interactions will be more likely to be used on a personal, second screen close to the viewer.

Analysing the contents of the workshop talks, the following adjectives were found to cover the foreseen characteristics of Future TV, social, immersives, crowdsourced, rewatched, cross device, second screen and augmented. In the closing discussion, the focus came back to the still existing barriers to Future TV—mentioned were content rights, infrastructure, the “culture” (existing more interactively) and complexity of FutureTV offers.

The good discussion provided a satisfactory close to the day, and let’s see what changes come in television and our expectations for future television in the next year, also with the research and development work of the LinkedTV project providing first insights into our LinkedTV vision of deeply interactive and enriched TV viewing!
LinkedTV: how to solve the interlinking of Web and TV

To enable a new generation of online applications which can interweave TV and the Web, several research challenges need to be overcome. These are the subject of the collaborative research in the LinkedTV project.

Manually connecting TV and Web content is costly both to create and maintain, and it does not scale. A key goal of LinkedTV is tools and approaches to better automate the preparation of content.

Firstly, intelligent video analysis can identify concepts of interest in the spatial and temporal segments of video. Hybrid approaches combining textual, audio and visual feature extraction maximize the accuracy of automated analysis, lowering the overall cost of generating annotations of large scales of video material.

The concepts in the analysis results are mapped into shared Web based vocabularies, using Linked Data sources such as DBpedia or GeoNames. This Linked Data based annotation is the basis for the hyperlinking to Web content, which has been subject to annotation with the same concept vocabularies. As a result, video is enriched at a fragment level with Web based content.

A key goal of LinkedTV is tools and approaches to better automate the preparation of content via shared annotations, and the creation of links between content based on those shared annotations.

Video Annotation and Linking

The LinkedTV platform will encapsulate a set of components into an end-to-end workflow, which cover the research challenges of the project: media analysis, annotation, hyperlinking, enrichment personalization and integrated playout. The platform is complemented by two end user applications to check and correct annotations and linking outputs.

The LinkedTV Scenarios

**Scenario 1: Interactive News Show**
- Professional news content produced by RBB
- Seed content: local news show "rbb Aktuell"

**Scenario 2: Hyperlinked Documentary**
- Cultural content from S&V (1700 hours of cultural heritage AV- content under CCL)
- Seed content: "Antique Roadshow"

**Scenario 3: Media Arts**
- Content and Performance by NUMEDIART Institute for New Media Art Technology
- Mons European Capital of Culture 2015.

**External**
- Live Cloud
- Browser Variants

**Platform**
- LinkedTV Server
- LinkedTV Client
- LinkedTV API

**Network**
- HTTP
- HbbTV Variant

**Client**
- PC/Tablet
- TV Set

A LinkedTV platform will provide access to the functionalities of the LinkedTV experience: annotation, linking and playout

Client LinkedTV players will run across devices (HTML5) or on SmartTVs (HbbTV)

A HTML5 based hypervideo player will enable the LinkedTV experience across different devices including SmartTVs and tablets. The player will be implemented for both single and dual screen usage, providing an intuitive interface to the LinkedTV scenario enrichments.