





Deliverable 7.3 LinkedTV Dissemination and Standardisation Report v1

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[•] PU = Public

[•] PP = Restricted to other programme participants (including the Commission Services)

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Table of contents

1		LinkedTV: Dissemination and Standardisation Activities.	4
	1.1	History of the document	4
2		LinkedTV Dissemination Report	5
	2.1	LinkedTV website	5
	2.2	Social Web / Web 2.0 channels	7
	2.3	PR materials	7
	2.4	Clustering activities	9
	2.5	Conferences and other events	10
	2.6	Organization of events	11
	2.7	Publications	12
	2.8	Future plan for activities	14
3		Standardisation plan	
	3.1	W3C	15
	3.2	EBU	16
	3.3	hbbTV	16
	3.4	OIPF	16

1 LinkedTV: Dissemination and Standardisation Activities

Communication by EU projects to the outside world, including specific target groups of interest, whether they be scientific, academic, industrial or public institutions, including the EC itself, is a very important part of the projects activity. While of course a focus needs to be kept on achieving meaningful research and development goals which form the content of the external dissemination, the achievement of the goals should not be seen as separate from the task to announce and share those achievements with the wider communities. This is not just a question of demonstrating the good investment of the European Commission in funding the research work in the first place, but also ensuring that others have the opportunity to learn from and take up project results in their own academic studies, scientific experiments, commercial products, or public services. This deliverable reports thus on the external dissemination and standardisation activities of the LinkedTV project for the first 18 months of its execution:

- How we disseminated project activities and results as widely as possible in all relevant and effective channels, adapted appropriately to differing target groups;
- How we plan to standardize data models, APIs, vocabularies, ontologies and other specifications created by or amended in the project.

1.1 History of the document

Table 1: History of the document

Date	Version	Name	Comment
22.03.2013	V0.2	Lyndon Nixon	Created initial structure and content of deliverable
25.03.2013	V0.5	Lyndon Nixon	Included all text
29.03.2013	V0.9	Lyndon Nixon	Complete version
09.04.2013	V1.0	Martha Merzbach	Corrections
10.04.2013	V1.1	Heike Horstmann	QA comments
12.04.13	V1.2	Lyndon Nixon	Final corrections

2 LinkedTV Dissemination Report

In the first 18 months of LinkedTV we can look at how we used the following channels to disseminate project activities and results:

- The website at linkedtv.eu
- So-called Web 2.0/Social Web channels, e.g. Twitter
- PR materials about the project: leaflets/flyers, brochures, posters, videos/films
- Participation at clustering activities initiated by the EC
- Participation at conferences, seminars, trade fairs
- Organisation of academic and industry events (e.g. workshops, info days)
- Publications in scientific / trade journals

2.1 LinkedTV website



The website at www.linkedtv.eu has been introduced in deliverable D7.1 LinkedTV website.

Concrete results:

News items. In the period January 2012 to March 2013 we published 47 news items.
 Each news item has its own URL, categories and tags, and can be directly liked,

recommended (both in Facebook) or commented.



Tags 2012 antiques interactive audio fingerprint connected TV content analysis cultural heritage demos duplicate detection **CUroit**V euroitv2012 evaluation event identication futurety graphical user interfaces interaction styles interactive television internet broadcast stream lod cloud media annotation media art Media fragment media gallery media retrieval media synchronization NERD numediart second screen semantic semantic annotation semantic multimedia smartty social ty spectogram synote system television to apis to services user interface user interfaces video alignment Video analysis visual summarization web conference web tv workshop

- Website sections. The site navigation has expanded over the period to include updated sections on every aspect of the project R&D and a dedicated section to highlight demos, software, presentations, deliverables and publicity materials of the project, including the newsletter.
- Online visibility, e.g. Search Engine Optimisation (SEO). As of March 22, 2013, the website has had a total of 9 222 visits, 5 325 unique visitors, and 20 579 page impressions. There is an average of 2.23 pages seen at each visit, an average visit duration of 2 min 10 sec, and 57.8% of visits were new. After the Netherlands and Germany, the US is the third most common visitor location (10.57% of all visits). The UK and China also feature in the top ten (5th and 9th). 39% of visitors came via a search query, and 25% through a link on another website. For example, 644 visits came from a Twitter shortened link, while both the euroitv2012.org and www2013.org links to LinkedTV event pages on the linkedtv.eu site brought a further 545 visits. Likewise, while 58% of direct accesses did target the home page, the next 16% were directly going to an event page (FutureTV 2012 or LiME 2013). So far in 2013 we have been quite stable at ca 1 200 visitors, 800 unique visitors and 2 000 page impressions / month, with the goal that as LinkedTV has more content to share and more visibility via results and events to achieve an even higher monthly rate.

2.2 Social Web / Web 2.0 channels

LinkedTV has a RSS feed at www.linkedtv.eu/feed/ and a Twitter stream at twitter.com/linkedtv. It also can share video material on its YouTube channel at youtube.com/user/LinkedTVeu and presentations using SlideShare at slideshare.net/linkedtv.

- Distribute news regularly via RSS and Twitter. This is set up automatically from the news blog on the website, while we can also additionally tweet when necessary (live events, use specific mentions or hashtags). Our Twitter account has made 48 tweets to date and has 82 followers.
- Distribute videos via YouTube. The YouTube channel has since 14 February 2013 its first videos. The three videos come from WP1 and illustrate video analysis approaches. We will expand the video offer in the next phase. The videos are also highlighted by embedding on the LinkedTV website and we encourage their embedding on other sites too. The initial videos have after 6 weeks total 237 views and the channel has 7 subscribers, but it is clear that there is more dissemination potential in YouTube to explore.
- Distribute presentations and deliverables via SlideShare. The Slideshare channel has been used since the beginning (the first upload was our project introduction slides) as a means to distribute online project material. The materials can then be embedded in the LinkedTV website or elsewhere. We have to date 28 shares and 63 followers. There are 9 presentations, where the introduction slides uploaded 8 months ago have already 14 750 views. There are 19 documents, all deliverables, where D1.1 State of the Art for Hypervideo has been particularly popular, with 2 053 views to date.

2.3 PR materials

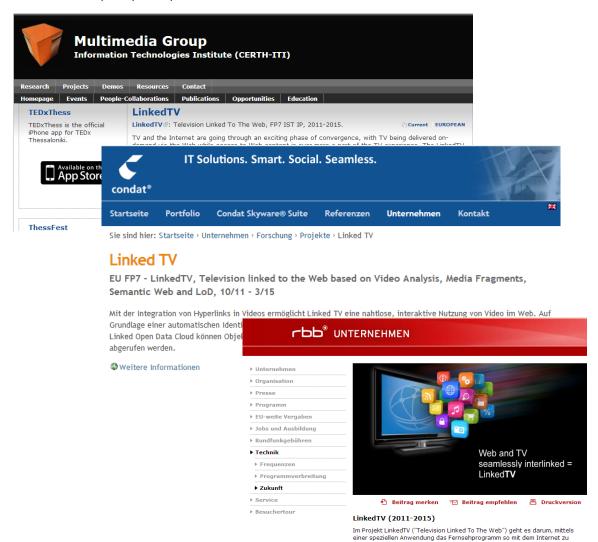
Concrete results:

The LinkedTV project has already attended and will further attend relevant industry and academic/scientific events and the distribution of materials at those events is an effective way to remind people met at the event of the project.

Concrete results:

Produce a project postcard. This was done. The postcard was distributed to all
partners who could distribute them in their organisation or at events they attend.
Postcards were brought to events which LinkedTV organized or participated in (see
sections 2.5 and 2.6).

- Produce a project newsletter. In the first year of the project a 4 page newsletter
 was created. It is available online at www.linkedtv.eu/newsletter and can be
 downloaded as PDF. A printed version was distributed to all partners who could
 distribute them in their organisation or at events they attend. Newsletters were
 brought to events which LinkedTV organized or participated in (see sections 2.5 and
 2.6).
- Produce other materials. Mainly individual partners create and distribute press releases or project announcements on their own web pages and within their own research or industry communities. For example, we found project announcements at CERTH, STI, RBB, CONDAT and UEP:



2.4 Clustering activities

The LinkedTV project works together with other EU projects where common goals, research topics, or complementary activities can be identified.

Concrete results:

- Concertation meetings of Networked Media unit. Due to restructuring in the NetMedia unit it seems that currently concertations have not been taking place²
- Participation in a projects cluster. LinkedTV is in contact with the IP hbbNEXT, and as a first interaction the scientific coordinator Lyndon Nixon presented LinkedTV at the hbbNEXT organized STUBA Workshop at Bratislava in September 2012. In another interaction, Daniel Stein of Fraunhofer IAIS / WP1 presented work on audio fingerprinting to the "MediaSync 2012 workshop" organized by hbbNEXT in Berlin in October 2012. We now work on concrete meetings between LinkedTV and hbbNEXT this summer 2013.
- Coordination with the hbbTV consortium. Given the importance of hbbTV as an end platform for interactive TV solutions developed by LinkedTV, we will coordinate with the hbbTV consortium, particularly through the consortium partner RBB and the external partner IRT to whom RBB and Fraunhofer IAIS have good contacts. LinkedTV reacted to the announcements of accepted functionalities for hbbTV 2.0 in February 2013³ and can use its contacts to IRT to identify opportunities to support the development of this critical new hbbTV version in the next project phase (cf. Section 3.3).
- Consultation meeting on FP7 Call 10, January 2012. LinkedTV presented its
 vision for television at the consultation meeting on the FP7 Call 10, which was a
 meeting helping define the key research challenges to be addressed in the next
 Networked Media call.
- NEM Summits. Once a year, these meetings involve projects from all units which share a R&D focus on Networked and Electronic Media (NEM) topics. The NEM Summit 2012 took place in October 2012 and LinkedTV was present with a WP1 submission on "Enrichment of News Show Videos with Multimodal Semi-Automatic Analysis". LinkedTV will seek to participate again this year at the NEM Summit 2013.

² http://cordis.europa.eu/fp7/ict/netmedia/concertation_en.html

³ http://www.hbb-next.eu/index.php/archive/39-standardisation-related/204-news-46

2.5 Conferences and other events

The LinkedTV project has attended conferences and events covering topics relevant to the project.

This is in addition to the conferences and events where LinkedTV attends because it is organizing the event or a part of the event (see section 2.6) or because it publishes work at the event and is making a presentation (see section 2.7).

Concrete results:

- Project presentation at SemTechBiz 2012, Berlin, February 2012
- Project presentation at Cross Media Conference 2012, Magdeburg, March 2012
- Project demo at EuroITV 2012, Berlin, July 2012
- Project presentation at W3C Germany Office workshop on HTML5, Xinnovations conference, Berlin, September 2012
- Project presentation at STUBA workshop, colocated with the IFIP Wireless and Mobile Conference 2012, Bratislava, September 2012
- Project demo at "CWI in Bedrijf 2012", Amsterdam, October 2012
- Project presentation at HBB-NEXT Synchronisation Workshop, Berlin, October 2012
- Project presentation at TeleTask Symposium, Potsdam, October 2012
- Project demo at ICTDelta 2012, Amsterdam, October 2012
- Project presentation at iMMovator "Uit het Lab", Hilversum, February 2013
- Project presentation at invited talk at the VU Amsterdam, February 2013
- Project presentation at Latin American Linked Data Meetup, Cuenca, Ecuador, March 2013

2.6 Organization of events

The LinkedTV project has also organized events which focus on LinkedTV-specific research and development topics.

Concrete results:

 The FutureTV workshop at EuroITV 2012 was fully attended, had a lively discussion and featured Silvia Pfeiffer as keynote on HTML5's role in the future of television.



- The Social Event Detection (SED) Task at the MediaEval 2012 International Benchmarking Activity is an example of an event dedicated to a specific strand of R&D within LinkedTV. In this case, it is the media analysis work of Workpackage 1. Such events help raise awareness of LinkedTV within the research community, give the opportunity for LinkedTV to compare its work with the state of the art and lead to potential collaboration on future solutions.
- The special session on Social Events in Web Multimedia at the International Conference on Multimedia Retrieval (ICMR) 2012 was organized by LinkedTV.
- The workshop on Web of Linked Entities (WoLE 2012) at the ISWC 2012 was coorganized by LinkedTV.

2.7 Publications

The LinkedTV project will demonstrate the value of its research and development work through peer reviewed publication of papers at conferences and other events.

Concrete results:

- Houda Khrouf, Vuk Milicic and Raphaël Troncy. EventMedia Live: Exploring Events Connections in Real-Time to Enhance Content. In 11th International Semantic Web Conference (ISWC'12), First Prize Winner of the Semantic Web Challenge, Boston, USA, November 11-15, 2012.
- de Abreu Pereira, N., LinkedTV Cross Media beim RBB, in: Michitsch, Chr. et al. (Ed.), Think Cross - Change Media: Eine Standortbestimmung im Jahr 2012, Magdeburg 2012, pp. 36-41. ISBN 978-38-482-2378-7
- 3. N. Gkalelis, V. Mezaris, I. Kompatsiaris, T. Stathaki, **Mixture subclass discriminant analysis link to restricted Gaussian model and other generalizations**, IEEE Transactions on Neural Networks and Learning Systems, 2012, accepted for publication.
- 4. Dorothea Tsatsou, Vasileios Mezaris and Ioannis Kompatsiaris. **Semantic personalisation in networked media: determining the background knowledge**. In <u>7th International Workshop on Semantic and Social Media Adaptation and Personalization (SMAP 2012)</u>, December 3-4, 2012, Luxembourg. 6 pages. <u>paper</u>
- 5. Jaroslav KUCHAŘ, Tomáš KLIEGR. **GAIN: Analysis of Implicit Feedback on Semantically Annotated Content**. In *WIKT 2012*. Bratislava: Nakladateľstvo STU, 22-23 November 2012, p. 75–78. ISBN 978-80-227-3812-5.proceedings
- DOJCHINOVSKI, Milan, KLIEGR, Tomáš. Recognizing, Classifying and Linking Entities with Wikipedia and DBpedia. In WIKT 2012. Bratislava: Nakladateľstvo STU, 22-23 November 2012, p. 41–44. ISBN 978-80-227-3812-5.proceedings
- 7. Yunjia Li, Giuseppe Rizzo, Raphaël Troncy, Mike Wald and Gary Wills. Creating Enriched YouTube Media Fragments With NERD Using Timed-Text. In *Proc.* 11th International Semantic Web Conference (ISWC'12), Demo Session, November 11-15, 2012, Boston, USA. 4 pages. paper
- 8. L. Baltussen and J. Oomen. **Antiques Interactive**. in PATCH'12: Workshop on Personalized Access to Cultural Heritage, Nara, Japan, 2 November 2012. 4 pages.
- Giuseppe Rizzo, Thomas Steiner, Raphaël Troncy, Ruben Verborgh, Josè Luis Redondo Garcia and Rik Van de Walle. What Fresh Media Are You Looking For? Extracting Media Items from Multiple Social Networks. In Proc. International Workshop on Socially-Aware Multimedia (SAM'12), October 29, 2012, Nara, Japan. 6 pages. paper
- D. Stein, E. Apostolidis, V. Mezaris, N. de Abreu Pereira, J. Müller, M. Sahuguet, B. Huet, I. Lasek. Enrichment of News Show Videos with Multimodal Semi-Automatic Analysis, NEM-Summit, 16-18 October 2012, Istanbul, Turkey. 6 pages.
- 11. Sven Buschbeck, Anthony Jameson, Raphaël Troncy, Houda Khrouf, Osma Suominen and Adrian Spirescu. A Demonstrator for Parallel Faceted Browsing. In *Proc.* Intelligent Exploration of Semantic Data Workshop (IESD'12), October 8-12, 2012, Galway, Ireland. 4 pages. paper ... Winner of the IESD challenge

- 12.R. Bardeli, J. Schwenninger, and D. Stein. Audio Fingerprinting for Media Synchronisation and Duplicate Detection. In Proc. Media Synchronisation Workshop, Berlin, Germany, 11 October 2012. 4 pages accepted.
- 13. Symeon Papadopoulos, Emmanouil Schinas, Vasileios Mezaris, Raphaël Troncy and Ioannis Kompatsiaris. **Social Event Detection at MediaEval 2012: Challenges, Dataset and Evaluation**. In *Proc.* MediaEval Benchmarking Initiative for Multimedia Evaluation, October 4-5, 2012, Pisa, Italy. 2 pages.
- 14.Radek Škrabal, Milan Šimůnek, Stanislav Vojíř, Andrej Hazucha, Tomáš Marek, David Chudán, Tomáš Kliegr. **Association Rule Mining Following the Web Search Paradigm**. In *Proc. of European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD 2012)*, Bristol, UK, 24-28 September 2012. Springer- Verlag
- 15.N. Gkalelis, V. Mezaris, I. Kompatsiaris, T. Stathaki, "Linear subclass support vector machines", IEEE Signal Processing Letters, vol. 19, no. 9, pp. 575-578, September 2012.
- 16.Dorothea Tsatsou, Lyndon Nixon, Matei Mancas, Miroslav Vacura, Rüdiger Klein, Julien Leroy, Jaroslav Kuchar, Tomáš Kliegr, Manuel Kober, Maria Loli, Vasileios Mezaris. Contextualised user profiling in networked media environments. In Proc. 2nd International Workshop on Augmented User Modeling in conjunction with 20th Conference on User Modeling, Adaptation and Personalization (UMAP 2012), Montreal, Canada, 16 20 July 2012. paper
- 17.D. Stein, E. Apostolidis, V. Mezaris, N. de Abreu Pereira, and J. Müller. **Semi-Automatic Video Analysis for Linking Television to the Web**. In *Proc. FutureTV Workshop*, June 2012, Berlin, Germany. 8 pages.
- 18.Lotte Belice Baltussen, Mieke H.R. Leyssen, Jacco van Ossenbruggen, Johan Oomen, Jaap Blom, Pieter van Leeuwen and Lynda Hardman. **Antiques Interactive**. In *Proc. EuroITV demo session*, June 2012, Berlin, Germany. 4 pages.
- 19. Giuseppe Rizzo, Raphaël Troncy, Sebastian Hellmann and Martin Bruemmer. **NERD** meets NIF: Lifting NLP Extraction Results to the Linked Data Cloud. In *Proc.* 5th Workshop on Linked Data on the Web (LDOW'12), April 16, 2012, Lyon, France. 10 pages. paper

2.8 Future plan for activities

In the next 12 months (April 2013 - March 2014), some dissemination actions can already be identified.

Events being organized in 2013 by LinkedTV:

- Special session on Social Events in Web Multimedia at the International Conference on Multimedia Retrieval (ICMR) 2013, Dallas TX, April 2013
- 2nd workshop on Web of Linked Entities (WoLE 2013) at the WWW 2013 Conference, Rio de Janiero, May 2013
- 1st workshop on Linked Media (LiME 2013) at the WWW 2013 Conference, Rio de Janiero, May 2013
- 4th workshop on Future Television (FutureTV 2013) at the EuroITV 2013 Conference, Como, Italy, June 2013
- Special session on Interactive Linked Television, at INTETAIN 2013, Mons, July 2013
- Social Event Detection task at MediaEval 2013, Barcelona, October 2013

3 Standardisation plan

Activities towards standardization of the project results will also be explored and coordinated in the Dissemination activity, so that LinkedTV may have the best possible impact both in the scientific and commercial communities. In terms of current standardization efforts, LinkedTV will actively participate in and contribute to various standardization bodies in activities of relevance to LinkedTV R&D activity. Furthermore, LinkedTV will seek to identify emerging new requirements in the project which are not (yet) covered by any known standardization activity, and where possible propose and chair new standardization activities.

We can consider current activities in a number of standardization bodies - often consortium partners are already participants in specific technical working groups within these bodies – with the expectation of having significant impact on their future development.

3.1 W3C

The Candidate Recommendation for Media Fragments URI 1.0 was taken up in LinkedTV for its internal references to media segments (see D2.1 Specification of the Media Fragment URI scheme). This ensures that tools and services will be created within the project which support the Fragment URI scheme and hence also support wider uptake of the specification. Especially for industry, the existence of software that can make use of conformant fragment URIs is critical for switching to using this specification as an agreed means to refer to media segments (and also exchange media content between systems and organisations). The EU FP7 Support Action MediaMixer (http://www.mediamixer.eu) is seeking to promote media fragment technology to industry and is promoting LinkedTV work in its community portal (see CERTH and EURECOM presentations at

http://community.mediamixer.eu/materials/presentations)

The Ontology for Media Resources 1.0 specification reached Recommendation status on 9 February 2012. LinkedTV uses this model together with others (most notably the Open Annotation Model) for its "LinkedTV Ontology" (see D2.2 Specification of lightweight metadata models for multimedia annotation).

The W3C Web and TV Interest Group was launched in February 2011 to provide a forum for Web and TV technical discussions, to review existing work, as well as the relationship between services on the Web and TV services, and to identify requirements and potential solutions to ensure that the Web will function well with TV. On 29 October 2012, it was agreed that a number of Task Forces (TF) to address key requirements in the Web and TV domain will be set up. Of particular interest to LinkedTV are:

Terminal Capabilities TF, http://www.w3.org/2011/webtv/wiki/Terminal, in which Raphael Troncy of partner EURECOM is participating

- Content Metadata Exposure and Content Synchronisation TF, http://www.w3.org/2011/webtv/wiki/Metadata, in which Raphael Troncy and Jose Luis Redondo of partner EURECOM are participating
- Timed Text TF, http://www.w3.org/2011/webtv/wiki/Tt, in which Raphael Troncy of partner EURECOM is participating

At the time of writing, the task forces have been set up and only initial work has been done (first conference calls, collecting use cases etc.) LinkedTV expects to be able to contribute with its activities to these task forces.

3.2 **EBU**

LinkedTV invited Jean Pierre Evain as an EBU representative who is active in the semantic TV work to the LinkedTV Advisory Board. A first Advisory Board meeting is planned for May 2013 where an opportunity should arise to discuss potential cooperation between EBU and LinkedTV.

3.3 hbbTV

HbbTV 2.0's new features have been announced in February 2013, and this is only marking the beginning of a specification process which will be validated by testing before acceptance as part of the final standard. To establish an initial contact at this early stage in hbbTV 2.0 development to the hbbTV consortium, we will hold a first LinkedTV-hbbNEXT technical meeting on May 30 2013 in Hilversum focused on the multi-screen application development work. This should be complemented by other meetings: content synchronisation and HTML5 support are both other planned features relevant for LinkedTV inputs. A first Advisory Board meeting is planned for May 7, 2013 where an opportunity should arise to discuss potential cooperation between the hbbTV Consortium and LinkedTV.

3.4 OIPF

Given the strong industry backing at OIPF, it seems unavoidable to seek to incorporate LinkedTV requirements into OIPF specifications at some future point, and achieving initial uptake in the hbbTV specification in one possible route to this.