Describing Media Assets

media fragment specification and description

Raphaël Troncy

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2 October 2013
Drupal 8 now has Schema.org RDF mappings (but don’t pop the champagne yet)

Submitted by Lin on Sun, 2013-07-07 23:53

You may have seen the announcement last week that Dries approved and committed a patch which changes Drupal core’s default RDF mappings. When any new Drupal 8 site is installed, the markup will include RDFa that uses terms from the Schema.org vocabulary. Of course, as with anything Schema.org, this announcement got some attention.
Once upon a time ...

JISC IE Technical Foundations

Consuming and producing linked data in a content management system

Posted on September 16, 2010 by Thom Burnett

At this summer’s Institutional Web Management Workshop in Sheffield (IWMW 2010), I demonstrated how it is becoming feasible for a content management system both to consume and to produce linked data resources. In a parallel session, I presented an overview of the current state of play in ‘Semantic content management: consuming and producing RDF in Drupal’. In a video-recorded plenary session (specifically in a nine-minute segment of the recording, from 34 through 42 minutes), I briefly reviewed how a modern CMS can enrich local datasets with remote linked datasets – and, by engaging with the web of data, produce new insights. Here I explain the scope of what I demonstrated at this event, outline some practical implementation procedures, and evaluate initial results.
Once upon a time …

JISC IE Technical Foundations

Consuming and producing linked data in a content management system

Posted on September 15, 2010 by Thom Burton

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leading to sharing Media Fragments

- Publishing status message containing a Media Fragment URI
… leading to sharing Media Fragments

- Publishing status message containing a Media Fragment URI

Raphaël Troncy
@rtroncy

Google Goggles explained in a media fragment #teleTask
linkeddata.synote.org/synote/recording/replay/

9:37 AM - 8 Oct 12 - Embed this Tweet

Reply to @rtroncy
… leading to sharing Media Fragments

- Publishing status message containing a Media Fragment URI
  - Use a ‘#’!
  - Highlight a video sequence
  - Highlight a region to pay attention to
W3C Video on the Web Workshop Report

W3C organized a workshop on Video on the Web in December 2007, hosted by Cisco Systems, in order to share current experiences and examine the technologies. 42 position papers were submitted for the Workshop and 37 organizations attended the event from a wide range of applications: content producers, network companies, research institutes, hardware vendors, video platforms, browser vendors, users, etc. The meeting was hosted in San Jose, California and Brussels, Belgium, with both locations linked with high definition video.
### Key topics

- **Addressing**: having global identifiers for identifying spatial and temporal clips (for deep linking, bookmarking, caching and indexing)

- **Metadata**: searching and discovering video is difficult with the volume of online video

- **Video codec**: recommending a baseline (open) video codec for the World Wide Web

- **Content protection**: managing digital rights associated with the media is key: W3C should look into metadata for digital rights
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Making video a "first class citizen"

Video in the Web

Mission

Following the workshop in Video on the Web, the goal of the Video in the Web activity is to make video a "first class citizen" of the Web. Video on the Web (and this includes audio, as the two are typically used together) has seen explosive growth, improving the richness of the user experience but leading to challenges in content discovery, searching, indexing and accessibility. Enabling users (from individuals to large organizations) to put video in the Web requires that we build a solid architectural foundation that enables people to create, navigate, search, link and distribute video, effectively making video part of the Web instead of an extension that doesn't take full advantage of the Web architecture.
Flickr Notes

http://www.flickr.com/photos/mhausenblas/2883727293/
YouTube Temporal Addressing (Sept 2008)

TechCrunch 50: Swype
What are Media Fragments?

- **Temporal media fragment**
- **Spatial media fragment**
- **Named media fragment**
- **Track media fragment**

Example tracks:

- **Example VIDEO Track** (Constant Frame Rate)
- **OTHER Tracks Types** (Further tracks possible)
- **Example AUDIO Track** (Constant Sampling Rate)
- **Example TEXT Track** (Discontinuous, Overlapping in time)
- **Example IMAGE Track** (Discontinuous in time)

**“Scared Scene”**
Media Fragments (temporal)

Original resource length

Fragment beginning

Playback progress

Fragment end
Media Fragments (spatial)

Media Fragments URIs

- Bookmark / Share parts (fragments) of audio/video content
- Annotate media fragments
- Search for media fragments
- Develop Mash-ups/Collage
- Conserve bandwidth

http://www.w3.org/TR/media-frags-reqs/
http://www.w3.org/TR/media-frags/
Requirements

- **r01: Temporal fragments:**
  - a clipping along the time dimension from a start to an end time that are within the duration of the media resource

- **r02: Spatial fragments:**
  - a clipping of an image region, only consider *rectangular* regions

- **r03: Track fragments:**
  - a track as exposed by a container format of the media resource

- **r04: Named fragments:**
  - A *temporal* media fragment that has been given a name through some sort of annotation mechanism
URI Scheme

- Using URI query part:
  
  http://www.example.org/video.ogv?t=60,100

- Using URI fragment part:
  
  http://www.example.org/video.ogv#t=60,100

- Mixing both:
  
  http://www.example.org/video.ogv?t=60,100
  #t=10,15
### URI Fragments vs. URI Queries

<table>
<thead>
<tr>
<th>#t=20,30</th>
<th>?t=20,30</th>
</tr>
</thead>
<tbody>
<tr>
<td>secondary resource,</td>
<td>primary resource,</td>
</tr>
<tr>
<td>notion of context</td>
<td>no notion of context</td>
</tr>
<tr>
<td>extraction needs to be</td>
<td>no adaptation restrictions</td>
</tr>
<tr>
<td>expressible in byte ranges</td>
<td></td>
</tr>
<tr>
<td>no provisions for</td>
<td>key-value pairs are sent</td>
</tr>
<tr>
<td>communicating</td>
<td>to the server</td>
</tr>
<tr>
<td>fragments to the server</td>
<td></td>
</tr>
<tr>
<td>potentially cacheable</td>
<td>not cacheable</td>
</tr>
</tbody>
</table>

- The media fragment URI syntax can be used for URI queries
- We will focus on URI fragments
Media Fragments Resolution

- For the URI query part:
  - The media file is only processed on server side
  - The UA receives a new video file

- For the URI fragment part:
  - Smart UA will strip out the fragment definition and encode it into custom http headers (Range header)
  - (Media) Servers will handle the request, slice the media content and serve just the fragment (corresponding byte ranges)
  - … while old ones will serve the whole resource
Media Fragments Resolution

- 2 ways handshake

GET [movie URI]
Range: seconds = 12-21

206 Partial Content
Content-Type: video/mp4
Content-Range: seconds 11.85-21.16
Media Fragments Resolution

- 2 ways handshake

- 4 ways handshake
Influence of Media Formats

- Fragment extraction needs to be expressible in terms of byte ranges

- Requirements for the different axes
  - temporal: presence of intra-coded frames (i.e., random access points)
  - spatial: presence of independently coded spatial regions
  - track: need to be identifiable by a name

- Conclusion: temporal and track axes are realistic, spatial fragments can hardly be expressed in terms of byte ranges
Media Fragment Clients

- **Web Browsers**
  - Firefox (since version 9, now version 23)
  - Safari (since Jan 2012, [announcement](#))
  - Chrome (since Jan 2012, [announcement](#))

- **Library (or Polyfill)**
  - mediafragment.js: [https://github.com/tomayac/Media-Fragments-URI](https://github.com/tomayac/Media-Fragments-URI)
  - xywh.js: [https://github.com/tomayac/xywh.js](https://github.com/tomayac/xywh.js)

- **Custom Players:**
  - Synote: [http://smfplayer.synote.org/smfplayer/](http://smfplayer.synote.org/smfplayer/)
  - Noterik, Condat, JSI, etc.
Media Fragment Servers

- Ninsuna: http://ninsuna.elis.ugent.be/MediaFragmentsServer
- Southampton-Eurecom: node.js based implementation
- YouTube: partial support, syntax difference
- Dailymotion: partial support, syntax difference
NinSuna: Overview

- Fully integrated media adaptation and delivery platform
  - media adaptation and media packaging core is independent of media formats
    - based on model-driven content adaptation & delivery technique
  - only high-level adaptation operations such as scene selection and frame rate scaling
    - no transcoding is applied
    - ideal candidate for Media Fragment implementation
  - more information: [http://ninsuna.elis.ugent.be](http://ninsuna.elis.ugent.be)
Support for Media Fragment URI queries

- both HTTP and RTSP implementation
- try some URIs at
  - http://ninsuna.elis.ugent.be/MediaFragmentsServer#Test

Support for Media Fragment URI fragments

- i.e., support for the MF-specific HTTP headers

Combining Media Fragment URI queries and fragments

- e.g., http://foo.com/media.mp4?t=10,40&t=5,10
Media Fragments Proxy

- **Goal**: make existing media resources, served by generic HTTP Web servers, available as Media Fragments

- Biggest problem for content providers willing to support Media Fragments
  - media extractor (dependent on underlying media formats)

- **Solution**: an approach that
  - works with existing HTTP Web servers (apache, IIS)
  - works with existing Web caches
  - works with not so smart user agents
Media Fragments Proxy

HTTP server

MF Proxy

MF User Agent

http://foo.com/video.ogv#t=11,19

Media Fragments Proxy

GET /?url=http://foo.com/video.ogv HTTP/1.1
Host: MFProxy.com
Accept: video/*
Range: t:npt=11-19
Accept-Range-Redirect: bytes


http://foo.com/video.ogv#t=11,19
GET /?url=http://foo.com/video.ogv HTTP/1.1
Host: MFProxy.com
Accept: video/*
Range: t:npt=11-19
Accept-Range-Redirect: bytes

-get (only) the header info
-try to find a fragment-to-byte mapping
-construct the redirect response

Media Fragments Proxy

GET /?url=http://foo.com/video.ogv HTTP/1.1
Host: MFProxy.com
Accept: video/*
Range: t:npt=11-19
Accept-Range-Redirect: bytes

HTTP/1.1 307 Temporary Redirect
Location: http://foo.com/video.ogv
Accept-Ranges: bytes, t, track
Content-Length: 0
Content-Type: video/ogg
Content-Range-Mapping: t:npt 10-20/0-50
Range-Redirect: 24000-32000
Vary: Accept-Range-Redirect

GET /?url=http://foo.com/video.ogv HTTP/1.1
Host: MFProxy.com
Accept: video/*
Range: t:npt=11-19
Accept-Range-Redirect: bytes

HTTP/1.1 307 Temporary Redirect
Location: http://foo.com/video.ogv
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Content-Length: 0
Content-Type: video/ogg
Content-Range-Mapping: t:npt 10-20/0-50
Range-Redirect: 24000-32000
Vary: Accept-Range-Redirect

GET /video.ogv HTTP/1.1
Host: foo.com
Accept: video/*
Range: bytes=24000-32000

Annotation of article pages with annotation text recorded on the talk page. The annotation is anchored to specific text in the article.

An we have a new extended color palette

Really, what else?

Optimized rendering, the new impact style, cleaned up shapes, better readability, a new timeline ...

You can even label areas of a video now!
The "Big Three" at the Yalta Conference (Wikipedia)
Media Fragment Semantic Annotation

The "Big Three" at the Yalta Conference (Wikipedia)

Media Fragment creation: localize a region (person)
Media Fragment Semantic Annotation

Media Fragment creation: localize a region (person)

Media Fragment annotation (tagging) = interpretation

Winston Churchill, UK Prime Minister, Allied Forces, WWII

The "Big Three" at the Yalta Conference (Wikipedia)
Media Fragment Semantic Annotation

- Media Fragment creation: localize a region (person)
- Media Fragment annotation (tagging) = interpretation
  Winston Churchill, UK Prime Minister, Allied Forces, WWII
- Media Fragment semantic annotation
  dbpedia:Churchill rdfs:label "Winston Churchill";
  rdf:type foaf:Person
dbprop:order dbpedia:Prime_Minister_(UK).

The "Big Three" at the Yalta Conference (Wikipedia)
A history of G8 violence (video) (© Reuters)
Media Fragment Semantic Annotation

A history of G8 violence (video) (© Reuters)

- Media Fragment creation: localize a temporal sequence
Media Fragment Semantic Annotation

A history of G8 violence ([video](https://example.com)) (© Reuters)

- Media Fragment creation: localize a temporal sequence
- Media Fragment annotation (tagging) = interpretation
  G8 Summit, EU Summit, Heiligendamm, 2007, Gothenburg, 2001
Media Fragment Semantic Annotation

A history of G8 violence (video) (© Reuters)

- Media Fragment creation: localize a temporal sequence
- Media Fragment annotation (tagging) = interpretation
  G8 Summit, EU Summit, Heiligendamm, 2007, Gothenburg, 2001
- Media Fragment semantic annotation
  :Seq1 foaf:depicts dbpedia:33rd_G8_Summit.
  :Seq4 foaf:depicts dbpedia:EU_Summit.
  dbpedia:33rd_G8_Summit
    rdfs:label "33rd G8 summit"@en ;
    grs:point "54.14305555555556 11.84166666666667".
Media Fragment Semantic Annotation

- Things, not strings!
  [http://googleblog.blogspot.fr/2012/05/introducing-knowledge-graph-things-not.html](http://googleblog.blogspot.fr/2012/05/introducing-knowledge-graph-things-not.html)

- Use knowledge bases (LOD)

- Use common vocabularies (LOV)

- Follow the 4 Linked Data principles

- Refine the 4 Linked Media principles
Open Annotation Data Model

- Specification developed in the W3C Open Annotation Community Group
  http://www.openannotation.org/spec/core/

- Core model
  - OWL vocabulary for representing and sharing annotation of digital resources (and their fragment) … in RDF
  - A body is related to a target
  - Nature of the annotation changes according to intention (motivation)
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  - OWL vocabulary for representing and sharing annotation of digital resources (and their fragment) … in RDF
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- How to annotate this image?
Semantic Annotation of an Image

http://www.w3.org/community/openannotation/wiki/SE_Semantically_Tagging_an_Image
Maphub: http://maphub.github.io/
Open Video Annotation Project

Media-rich Video Annotation for the Web

To support teaching, learning and research with web video.

http://openvideoannotation.org/
Annotations are clickable text overlays on YouTube videos.

Annotations are used to boost engagement, give more information, and aid in navigation.
YouTube Annotations: How To

Title

add a speech bubble, you can add a note, a title, a spotlight, or just even pause the
LinkedTV: automatic annotations ...

Pre-processed image from repository:

Concept detection

- Concepts semantically related to the considered events
- Additional concepts
- show top 10
- show top 20
- show all

Religious_Building
Person
Outdoor
Building
Furniture
Body_Parts
News
Adult
Windows
Apartment_Complex
... and enrichment for hypervideos

CONCEPT IN PLAYER
Cubism
Expressionism
Fauvism

FACETS / PROPERTIES OF CONCEPT

CONTENT ENRICHMENT
LinkedTV Second Screen Scenarios

- Universal Identifiers: URI’s
- Common description formats
- Easy interlinking between content
Media Fragments and Annotations

- Media Fragment URI 1.0
  - Chapters
  - Scenes
  - Shots
  - etc…

nerd:Location
Casablanca

nerd:Location
Cafe Rick

Nerd:Person
H. Bogart

Nerd:Person
I. Bergman

http://data.linkedtv.eu/media/e2899e7f#t=14,15
Enrichment and Hypervideos

nerd:Location Casablanca
nerd:Location Cafe Rick
Nerd:Person H. Bogart
Nerd:Person I. Bergman
Enrichment and Hypervideos

nerd:Location
Casablanca

nerd:Location
Cafe Rick

Nerd:Person
H. Bogart

Nerd:Person
I. Bergman

nerd:Location
E. Tierney

nerd:Location
China
What is a Named Entity recognition task?

- A task that aims to locate and classify the name of a person or an organization, a location, a brand, a product, a numeric expression including time, date, money and percent in a textual document.
NER Tools and Web APIs

- Standalone software
  - GATE
  - Stanford CoreNLP
  - Temis
NER Tools and Web APIs

- **Standalone software**
  - GATE
  - Stanford CoreNLP
  - Temis

- **Web APIs**
NER Tools and Web APIs

- Standalone software
  - GATE
  - Stanford CoreNLP
  - Temis

- Web APIs

http://nerd.eurecom.fr/
NERD: Named Entity Recognition and Disambiguation

- Compare performances of NER and NEL tools
  - Understand strengths and weaknesses of different Web APIs
  - Adapt NER processing to different context

- (Learn how to) Combine NER (/ NEL) tools

What is NERD?

ontology\(^1\)  
REST API\(^2\)

UI\(^3\)

\(^1\) [http://nerd.eurecom.fr/ontology](http://nerd.eurecom.fr/ontology)  
\(^2\) [http://nerd.eurecom.fr/api/application.wadl](http://nerd.eurecom.fr/api/application.wadl)  
\(^3\) [http://nerd.eurecom.fr](http://nerd.eurecom.fr)
## Factual comparison of 10 Web NER tools

<table>
<thead>
<tr>
<th></th>
<th>Alchemy API</th>
<th>DBpedia Spotlight</th>
<th>Evri</th>
<th>Extractiv</th>
<th>Lupedia</th>
<th>Open Calais</th>
<th>Saplo</th>
<th>Wikimeta</th>
<th>Yahoo!</th>
<th>Zemanta</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Language</strong></td>
<td>EN,FR,GR,IT,PT,RU,SP,SW</td>
<td>EN,GR,IT</td>
<td>EN,IT</td>
<td>EN,FR,IT</td>
<td>EN,FR SP</td>
<td>EN,SW</td>
<td>EN,FR SP</td>
<td>EN</td>
<td>EN</td>
<td></td>
</tr>
<tr>
<td><strong>Granularity</strong></td>
<td>OEN</td>
<td>OEN</td>
<td>OED</td>
<td>OEN</td>
<td>OEN</td>
<td>OED</td>
<td>OEN</td>
<td>OEN</td>
<td>OED</td>
<td></td>
</tr>
<tr>
<td><strong>Entity position</strong></td>
<td>N/A</td>
<td>char offset</td>
<td>N/A</td>
<td>word offset</td>
<td>range of chars</td>
<td>char offset</td>
<td>N/A</td>
<td>POS offset</td>
<td>range of chars</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Classification schema</strong></td>
<td>Alchemy</td>
<td>DBpedia FreeBase Schema.org</td>
<td>Evri</td>
<td>DBpedia</td>
<td>DBpedia LinkedMDB</td>
<td>Open Calais</td>
<td>N/A</td>
<td>ESTER</td>
<td>Yahoo</td>
<td>FreeBase</td>
</tr>
<tr>
<td><strong>Number of classes</strong></td>
<td>324</td>
<td>320</td>
<td>5</td>
<td>34</td>
<td>319</td>
<td>95</td>
<td>5</td>
<td>7</td>
<td>13</td>
<td>81</td>
</tr>
<tr>
<td><strong>Response Format</strong></td>
<td>JSON MicroF XML RDF</td>
<td>HTML JSON RDF XML</td>
<td>HTML JSON RDF XML</td>
<td>HTML JSON RDF XML</td>
<td>HTML JSON RDF XML</td>
<td>JSON MicroFormat</td>
<td>JSON XML</td>
<td>JSON XML</td>
<td>XML JSON RDF</td>
<td></td>
</tr>
<tr>
<td><strong>Quota (calls/day)</strong></td>
<td>30000</td>
<td>3000</td>
<td>3000</td>
<td>50000</td>
<td>1333</td>
<td>unlimit</td>
<td>5000</td>
<td>10000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
NERD Ontology

Aligned the taxonomies used by the extractors
Building the NERD Ontology

<table>
<thead>
<tr>
<th>NERD type</th>
<th>Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person</td>
<td>10</td>
</tr>
<tr>
<td>Organization</td>
<td>10</td>
</tr>
<tr>
<td>Country</td>
<td>6</td>
</tr>
<tr>
<td>Company</td>
<td>6</td>
</tr>
<tr>
<td>Location</td>
<td>6</td>
</tr>
<tr>
<td>Continent</td>
<td>5</td>
</tr>
<tr>
<td>City</td>
<td>5</td>
</tr>
<tr>
<td>RadioStation</td>
<td>5</td>
</tr>
<tr>
<td>Album</td>
<td>5</td>
</tr>
<tr>
<td>Product</td>
<td>5</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>
NERD REST API

GET, POST, PUT, DELETE

/RDF

/JSON

“entities”: [{
  “entity”: “Tim Berners-Lee”,
  “type”: “Person”,
  “uri”: "http://dbpedia.org/resource/Tim_berners_lee",
  “nerdType”: "http://nerd.eurecom.fr/ontology#Person",
  “startChar”: 30,
  “endChar”: 45,
  “confidence”: 1,
  “relevance”: 0.5
}]

NERD User Dashboard

Raphael Troncy
raphael.troncy@eurecom.fr

**Daily external service calls**

- Number of daily queries using the NERD default account: 500
- 96.2% of queries are available
- Red indicates the number of daily queries

**Statistics of the performed extractions**

- Amount of extractions per tool:
  - 23.8% for all
  - 38.1% for combined
- AlchemyAPI, combined, dbspotlight, extractiv, opencalais

Amount of extractions performed in the last month:

02/10/2013 · Describing Media Assets · MediaMixer Webinar, October 2013 · 49
NERD User Interface

Analysis

Insert a URI or plain text

URI article

Analyze web resource

Plain text

Analyze plain text

action
- analyze
- export
- evaluate
- compare
- search
Media Fragment Enricher:  
http://mfe.synote.org/mfe/

Video Preview

*URL

http://www.youtube.com/watch?v=FBUFGu2M2gM

Please enter the URL of a YouTube or DailyMotion Video e.g. http://www.dailymotion.com/video/36300382 or http://www.dailymotion.com/video/28764736

How simple ideas lead to scientific discoveries - Adam Savage

Tags
No tags for this video

Duration
00:07:32

Statistics

1104526 Views
12389 Comments
0 Favorites
12312 Ratings

Category
Education

Language

Creation Date
2012-03-13T18:18:58.000Z

Publication Date
2012-03-13T18:18:58.000Z

Subtitle Available

Description


Adam Savage walks through two spectacular examples of profound scientific discoveries that
How simple ideas lead to scientific discoveries - Adam Savage

Subtitle

to the phenomenon of the ball going to the back of the wagon.

But in truth, nobody really knows.”

Feynman went on to earn degrees at MIT. Princeton, he solved the Challenger disaster.

He ended up winning the Nobel Prize in Physics for his Feynman diagrams describing the movement of subatomic particles.

And he credits that with his father.

NERD

Music
wagon
wagon
wagon
ball
inertia
inertia
phenomenon
ball
Feynman diagrams
father
sense
contributions
letter
letter
deep well
bull
circular
Earth
sphere
head
brain
walk
ball
wagon
maria
scientists
wagon
Challenger disaster
subatomic particles
conversation
knowledge
affair
mind
writer
solstice
shadow
circular
Earth
straight line
guy
How simple ideas lead to scientific discoveries - Adam Savage

Subtitle

Feynman went on to earn degrees
at MIT. He solved the Challenger disaster.
He ended up winning the Nobel Prize in Physics
for his Feynman diagrams describing the movement of subatomic particles.

And he credits that conversation with his father
as giving him a sense
that the simplest questions could carry you out to the edge of human knowledge.
and that’s where he wanted to play.
Web + TV experience

http://www.youtube.com/watch?v=4mSC685AG7k
Take Away Summary

- **Video is a first class citizen on the Web**
  - Annotations: [Ontology](#) and [API](#) for Media Resources, [Open Annotation Data Model](#)
  - Access: [Media Fragments URI](#)
  - [NERD platform](#) for extracting key information from textual resources including video subtitles and microposts
Take Away Summary

- **Video is a first class citizen on the Web**
  - Annotations: [Ontology](#) and [API](#) for Media Resources, [Open Annotation Data Model](#)
  - Access: [Media Fragments URI](#)
  - [NERD platform](#) for extracting key information from textual resources including video subtitles and microposts

- **Embrace the Linked Media vision**
  - Publish, re-use, re-purpose and remix media descriptions
  - Develop links between (part of) media items via their descriptions
Winter School: http://winterschool.mediamixer.eu/

1ST WINTER SCHOOL ON MULTIMEDIA PROCESSING AND APPLICATIONS (WMPA 2014)

Video analysis, video annotation, semantic multimedia, social media, digital rights and multimedia applications

Student track for PhD/MSc media students
Credits

- Giuseppe Rizzo, Vuk Milicic, José Luis Redondo Garcia (EURECOM)
- Thomas Steiner (Google Inc.), Yunjia Li (University of Southampton)
- Marieke van Erp (Free University of Amsterdam)
- Erik Mannens, Davy ven Deursen (iMinds, Uni. Ghent)
- Paolo Ciccarese, Robert Sanderson, Herbert Van de Sompel and all the members of the W3C Open Annotation Community Group
- ... and many other students
Expert organizations in MediaMixer

- Modul Vienna University
- Universitat de Lleida
- Institut "Jožef Stefan", Ljubljana, Slovenija
- Acuity Unlimited
- Eurecom

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