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April 24, 2014. OCWC Global, Ljubljana, Slovenia
• Start: support service
• Now: largest web portal with video edu&open access
• 18,500 videos (1-1.5h)
• 11,900 authors
• 10,000 unique visitors/day
Facts

- Informal learning channel
- Promoting science, fostering knowledge
- OER
- Mobility
- Award-winning
  - UN WSA for „e-science & technology“
  - 2009 – WSA, 2013 – WSA of the decade
- Aims
Media creation & re-use in e-learning

- E-learning materials are increasingly multimedia: more video recordings, more accompanying materials such as slides
  - E-learners need to be able to search and retrieve the material they are looking for (based on its subject)
  - Consumption trends towards mobile and on-the-go means interest focuses on the parts of the material of particular interest
Current USER workflow

1. **Sign-in as User**
2. **Browse**
3. **Search**
4. **Recommended Content**
   - Browse by Category
   - Browse by Institution
   - Browse by Author
5. **Select & Watch Video**
   - Video 1
   - Video 2
6. **Report a Problem**
7. **Add Comment**
8. **Chat**
9. **Download Slides**
10. **Related Content**
    - Related Content
    - Personal History
    - More by Author
Problems

- Search (text matching only over titles, descriptions)
- Users looking for learning materials on specific topics - unique requirements
- Users looking for very specific information - fragments, not entire lectures
- Lack of time for watching, the need for mobile version
- The need for meaningful structures, curriculums
- Videolectures.NET strategy includes continuous introduction of new technologies - important initiative to provide users with access to the semantically enriched content fragments...
Current CM workflow
Problems

- From manual to automatic
- Save CM's time, employer money
- The need for new functionalities
  (automatic textual transcriptions from speaker audio, translations (FP7 transLectures), concept extraction from slides (not just titles but textual content), video analysis, semantic annotation - video annotation process, segmentation...)
- Manually make meaningful structures, curriculums (takes too much time!)
Benefits from new technology

- **Simplify** existing workflows
- **Improved** search and browsing in general and **retrieval of fragments**
- Fragments of learning materials from the site, ordered in a meaningful way
- **Content on demand**: easier and quicker access to specific topics of interest
- Direct intuitive access to a **single learning channel** built around the topic searched for
- Producing **new learning materials - curriculums**
- Content specifically **addressable** and hence **bookmarkable/saveable** for subsequent reference and viewing
- **New contexts** -> dynamic provision of such learning resource would be particularly useful in mobile consumption contexts
- These could subsequently form **new distribution channels** for VideoLectures (e.g. video streams / TV channels on selected topics)
- This could drive to **more repeated access and win new users!**
MediaMixer Project and VideoLectures MashUp

How media fragments and their re-mixing can enable new experiences for e-learners
The MediaMixer hub

AV Content Provider

1) AV material analysis and annotation
2) Fragment Definition
3) Rights and Cost Assignment

AV Content Demander

4) Fragment Upload
5) Clearing (Sell)
6) Search, Browsing
7) Rights and Cost Assessment
8) Download
9) Composition of new AV materials
10) Clearing (Buy)

Media Mixer Repository
annotated & linked Media Fragments

- Video analysis tools
- Video annotation tools
- Video metadata creation and publication
- Digital rights management
- Media search and retrieval
- Media negotiation, purchase and re-use
New User Workflow

- **Recommended Content**
- **Browse**
- **Search**
- **Sign-in as User**
- **Content on Demand**

1. **Logical Structured Fragments**
2. **Playing Video**
3. **Recommended Fragments**
4. **Search by Interested Topics**
5. **Receive Learning Channel**
6. **Logical Structured Fragments**

- **Fragment 1**
- **Video 1**
- **Fragment 2**
- **Video 2**
- **Fragment 3**
- **Video 3**
New CM Workflow

1. Sign-in as Administrator
2. Add Event
3. Add Event Info
4. Add Lecture
5. Add Lecture Info
6. Add Content
7. Segmentation
8. Logical Structured Fragments
9. Add Structure (Curriculum)
10. Video & Slides Sync
11. Review
12. Publish Event

- Automatic Textual Transcription
- Concept Extraction
- Video Analysis
- Semantic Annotation
VideoLecturesMashup - demo

http://mediamixer.videolectures.net

Search lectures

Search for a correct DBpedia title, like Statistics, Machine learning, Kernel methods, Structure, ...

MediaMixer | Community set-up and networking for the reMIXing of online MEDIA fragments
Co-funded by the European Union, Nov 2012 - April 2014
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Search results: Nikola Tesla (Nikola_Tesla)

no results found for "Nikola_Tesla" (which is what DBpedia suggested as best match for "Nikola Tesla")
Search for related concepts instead...
“Nikola Tesla” related concepts (Nikola_Tesla)

Albert Einstein (as in Naturalized citizens of the United States, American physicists)
- The dark universe: dark matter and dark energy [1/4]
  Edward W. Kolb, 2008 (1385 views)
  t=176.56,181.78 t=218.8,623.02 t=794.41,798.88 t=831.22,835.65 t=835.7,841.51 t=841.51,847.88

- Fusion Energy: Promises Unkept? [1/2]
  Holtkamp Norbert, 2008 (114 views)
  t=749.34,754.63

- Fundamentals of Particle Detectors and Developments in Detector Technologies for future Experiments [4/6]
  Werner Riegler, 2008 (153 views)
  t=1447.62,1453.2

Bill Clinton (as in American Buddhists)
- The Militarization of Science and Space
  Noam Chomsky, 2004 (281 views)
  t=5725.94,5743.58

Edward Teller (as in Naturalized citizens of the United States, American inventors)
- Fusion Energy: Promises Unkept? [1/2]
  Holtkamp Norbert, 2008 (114 views)
  t=1740.62,1751.21
Welcome to the MediaMixer community portal!

Making Media more valuable for its owner and more useful for its consumer.

http://community.mediamixer.eu

Sign up for ALL updates!

Introduction to all technologies at community.mediamixer.eu/technology

Updated with latest materials on all Media Mixer topics:

- Technology use cases
- Demonstrators
- Tutorials
- Presentations
- Software
- Specifications

Follow us on Twitter @project_mmixer
Thank you for your attention!

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Say hello @project_mmixer