




Semantic Audiovisual Entertainment Reusable Objects - Overview


3rd User Group Meeting
Amsterdam, September 15, 2008






Motivation

- Digital audiovisual media pervade our life
- Automated processing of content is THE problem
- Need to advance the state of the art in digital media to create audiovisual content
 - using 'intelligent content' and appropriate tools
 - with greater quality at lower cost
 - for cross-platform delivery
- Provide audiences with more engaging entertainment and information at home or on the move
- Build on and extend R&D in media technologies, web semantics and context based search & retrieval




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Intelligent Content! Content that listens? (P. Kafno*)


- Brings together multimedia, web & knowledge engineering
- Requires new kind of creativity
- Categorizes and meta-tags content
- Personalized, reactive; encourages re-mix and new directions
- Creates revenues



* Paul Kafno, Out of the Box - Expanding opportunities for content creators, Presentation IST Event, Helsinki 2006




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Overall Vision

- Define and develop 'Intelligent Content' for media production
 - consisting of multimedia objects
 - with context-aware behaviour
 - for self-adaptive use and delivery across platforms
- 'Intelligent Content' should enable the creation and re-use of complex, compelling media by artists
 - who need to know little of the technical aspects of how the tools that they use actually work.




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Research Areas

- Speech
 - Linguistic analysis and tagging
 - Expressive speech generation
- Animation
 - Emotional character animation and lip-synching
- Semantic description (emotion, context)
- Context based search & retrieval
- Experimental productions




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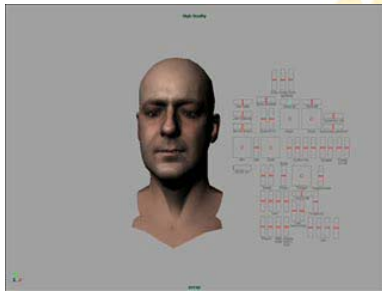
Major Achievements Semantics & Context

- Semantic description
 - Ontology for virtual characters/animation production
 - Description of emotion
 - based on activation/evaluation model
 - used in all applications
 - animation, speech tagging & synthesis, search & retrieval
 - Semantic annotation tool – StaBTag[®] approach
- Context-based search and retrieval
 - Focus on user context
 - Integration of traditional approaches with semantic and content-based search



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High Quality Facial Animation



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Major Achievements Applications



- Intelligent Authoring
 - Template based Program editor
- High-quality, real-time renderer
- Visual shader specification
- Post production
- Audio transformation
- StaBTag



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Demonstrations Today



- **Audio Tools in Automatic Media Production**
 - Oscar Mayor, Music Technology Group, Universitat Pompeu Fabra
- **Bones Dailies**
 - Henner Steinwede, Reinhard Fach, Grass Valley Germany
- **Speech Synthesis**
 - Carlos Monzo, Universitat Ramon Llull
- **Semantic Media Annotation**
 - Gert Kienast, JOANNEUM RESEARCH
- **i-VJ, an Interactive Video Jockey**
 - Sonia Miarnau, Activa Multimedia
- **Turing Machine Opera and Turing Enigma Bot**
 - Tea Stolt, University of Arts and Design, Helsinki



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www.salero.eu

www.youtube.com/intelligentcontent

en.wikipedia.org/wiki/SALERO



The screenshot shows the SALERO website interface. It features a header with the SALERO logo and the text 'Semantic Audiovisual Entertainment Reusable Objects'. Below the header, there is a 'PROJECT' section with a 'SALERO' logo and a description of the project. To the right, there is a video player showing a man speaking. Below the video player, there are several smaller sections with icons and text, including 'SALERO's Main Issues', 'SALERO's Main Issues', and 'SALERO's Main Issues'. The website has a clean, professional layout with a yellow and orange color scheme.

Lessons Learnt so Far



- Reusability of 3D-content limited
 - Game domain needs different/additional models
 - Lower resolution for real-time rendering
 - Complete 3D-environment
 - Different capabilities of devices
- Workflow and tools: real-time generation vs. post-production path
 - Real-time: creates content, uses and generates metadata
 - Post-production: modifies existing content, uses and generates metadata
 - No one size fits it all tool
- "Semantic technologies" have to be gently introduced to the media industry
 - Not considered a core technology, yet
 - Industry interested if added value shown



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