AIM AND FUNCTIONALITIES

The Manual annotation tool is designed to help a user to produce temporal annotations on an audiovisual document. These annotations may be produced “from scratch”, or initiated by the results coming from an automatic analysis step. The intended use is to present to the annotator some relevant information coming from automatic processing, in order to help him to correct, complete or even create new annotation based on displayed information like:

- automatic shot segmentation
- automatic speech recognition
- time span of an automatically computed concept
- automatic initialisation of a user-level “subject”

These annotations are graphically displayed and edited along a time-line. They can be organised in parallel strata. The content of an annotation is driven by an ontology defined in OWL format, allowing exploration of this ontology and production of time-anchored RDF annotations.

A graphical interface allows the connection to an algorithmic module using relevance feedback to help quick research, gathering and check of similar annotations. This tool provides a description language which can be extended declaratively in order to smoothly adapt to the specific description scenarios: segment type definition and ontology filtering can be used conjointly to accelerate the annotation process. The description language can handle complex description structures (segmentation, overlaps, hierarchies) produced by automatic analysis. Such information can be useful to speed up navigation within the content and the annotation process. The additional use of a relevance feedback algorithm (mostly used in end-user information retrieval interfaces) is quite innovative in the context of annotation, aiming to speed up both the completion and
correction of annotation using user feedback and computation based on visual and semantic similarity.

PERFORMANCE
This application integrates different state of art existing approaches, in order to improve productivity and quality of a manual process when initiated in an automatic way.

INTEROPERABILITY
The tool is compliant with OWL/RDF and MPEG7 standards. The semantic description of a segment can be done using any kind of ontology defined in the OWL Format and will produce the related RDF instances. For the structural part of the description, the tool makes use of its own extensible description language which can be easily mapped to some common MPEG7 descriptors if needed. The media, OWL/RDF metadata and MPEG7 metadata can be accessed using the file system or by distant database/knowledgebase connections using the HTTP protocol.

OWNERSHIP
The Manual Annotation Tool belongs to the Institut National de l’Audiovisuel, while the relevance feedback module is owned by the Queen Mary University of London.

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