
Customized solutions by Fraunhofer IDMT

Are you looking for an individual solution for your specific content analysis needs? Do you need support for the introduction, evaluation or implementation of AI-based tools or workflows?

Please tell us more about your specific challenges or questions: We will be happy to analyze your needs and propose possible solutions.

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CONTENT ANALYSIS AND AI TOOLS FOR MEDIA ARCHIVES AND PRODUCTION



CUTTING-EDGE TECHNOLOGIES FOR BROADCASTERS AND DIGITAL ARCHIVES

EASY INTEGRATION INTO EXISTING SYSTEMS AND APPLICATIONS

FULLY EXPLOIT THE POTENTIAL OF YOUR CONTENT

Metadata Extraction and Content Recommendation

We provide cutting-edge technologies for the automatic, efficient annotation of A/V content to ensure that material can be found, linked and used, or recommended to users:

- music annotation and similarity, speech and music detection and more (audio)
- video shot detection and key frame extraction, video motion analysis and object/actor recognition (visual)
- multi-modal analysis and recommendation

Audio and Video Matching

Our unique combination of audio and video matching and phylogeny analysis tools identifies content reuse and partial overlaps and detects the content processing history:

- query-based audio matching, to detect occurrences of an audio item under very noisy conditions and within an audio mix
- partial matching, to detect short partial overlaps within audio and video datasets for metadata propagation, rights clearance, de-duplication, and program analysis
- phylogeny analysis, to detect processing steps and the best-quality "root" original item within a dataset

Audio Forensics and Fake Detection

The audio forensics toolset detects recording, editing and coding traces within audio material and can be used for quality control and tampering detection:

- microphone analysis, to identify microphones from recordings and harmonize material from different microphones
- codec analysis, to detect traces from previous coding steps, and to detect double encoding
- bit depth and ENF analysis, for the analysis of how content was recorded and processed
- audio tampering detection tools, based on the aforementioned approaches



Trustworthy AI, Security and Privacy

We offer many years of experience with combining systematic evaluation of AI tools, security and copyright solutions, and privacy protection. Where others focus on conflicts between analysis, privacy and security requirements, we focus on their harmonization and provide respective tools:

- on-premises analysis and metadata exchange and enrichment, without the need to provide sensitive material to intermediaries
- systematic evaluation of AI tools, including automatic and comparative testing of analysis components
- privacy enhancing tools (PET), including anonymization and re-identification analysis and a patented approach to strongly decoupled virtual IDs (pseudonyms) to real IDs in a system, enabling you to provide privacy-enhanced analysis and recommendations
- security and privacy-by-design solutions for AI and media systems
- copyright management tools, to simplify dealing with legal complexities and uncertainties