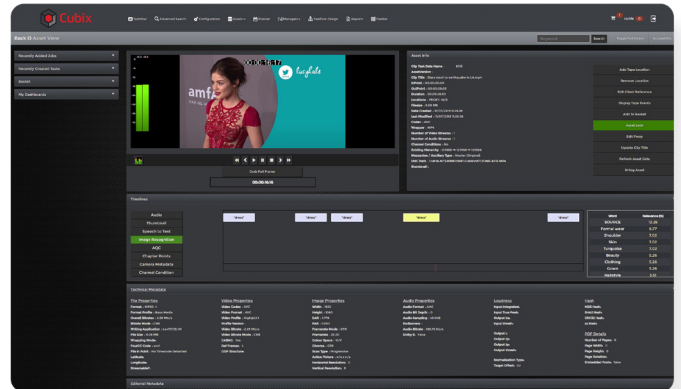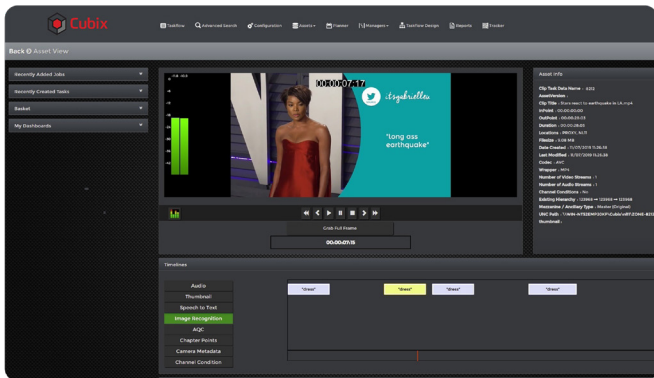# AI Powered Content Discovery

"Discover the right media, quicker through cost effective metadata enhancement and semantic search"

As the amount and number of content sources increase for many media-based facilities, the ability to know what assets you have and where they are becomes a challenge. Whether the content is user generated, or simply resides on drives upon drives of rushes, this unstructured data often remains inaccessible to the business and it is a slow, painful process to locate content when needed.

In recent years, a combination of Artificial Intelligence (AI) and Machine Learning (ML) services have launched within the public cloud domain providing a wide range of features such as speech to text, label detection (where objects and other contextual image information is detected) through to automatic content moderation.

The first challenge is to integrate these services into the same media repository that house the content, allowing for existing metadata to be enriched. From there, users can conduct semantic based searches across this combination of media assets and associated metadata. However, the main challenge is to do this cost-effectively and with as little operational impact as possible, as often the reason that the unstructured data was never 'tagged' was one of time constraints and or resource restrictions.

Many asset management systems which offer these integrations make use of standard video based API's from such providers as Amazon and Microsoft, however, the costs for running these services can be significant. Furthermore, if the metadata returned is not presented in a contextual way, the real value of such metadata is diminished.

The Content Discovery engine within Cubix has been designed to understand and resolve these primary challenges which are faced by a wide range of media operations. Cubix, building on a long tradition of integration, supports a wide range of AI and ML based public cloud services and is able to use its Orchestration engine to intelligently request only those indexing services required for the content being operated on. These 'in flight' decisions are based on reviewing the results of previous AI/ML calls, which then when combined with configured business rules allow for more focused and more detailed indexing to occur.

A key feature of the Cubix Content Discovery engine is the efficient use of bandwidth when uploading to the cloud. By sending full frame still images (uploaded at pre-configured intervals), whole 'chunks' of video no longer need to be uploaded with the associated increase in transport and storage costs. Cubix will then automatically combine this resulting metadata with the asset.

By comining speech to text with label detection, as well as existing ancillary files such as subtitles, still images and PDFs, etc. Cubix provides smart and contextual content recommendations that match the content and context being searched for. Results are weighted based on relevance, which can then easily be exported for use within the editing environment and more.

For more information, please contact us at **hello@ortana.tv**