

# Thumbnail Generation & Banner Personalization

## Al video processing

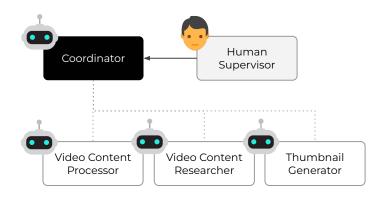
Multi-agent architectures enable the automation of high-complexity capabilities, maintaining human supervision and modeling enterprise-specific workflows and procedures.

#### **Studio needs**

Efficient automation of the "digital kit" for the channel on Amazon Prime Video, ensuring faster delivery, consistency, and compliance with platform standards.



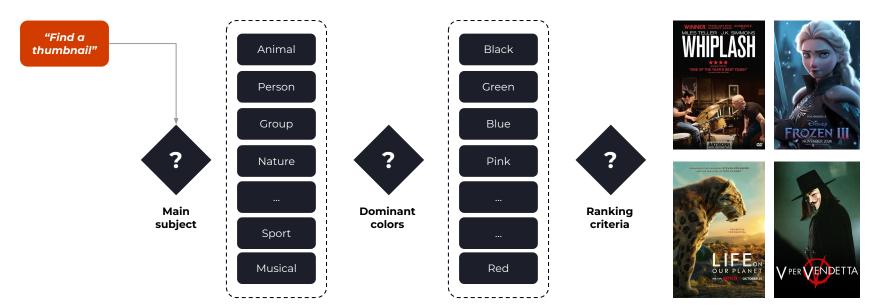
#### Carousels: thumbnail generator





## Al agents

A complex flowchart benefits from Al-agent architecture for adaptability, scalability, decision automation, enhanced efficiency, error reduction, and dynamic problem-solving capabilities in evolving environments.



## **Computer Vision**

To find the best thumbnail, all the frames must be processed through a series of computer vision algorithms to gather objective frame metadata, representation of the frame and contextual metadata. The annotation can be grouped into 3 main categories:

#### Visual

Objective properties contained at pixel-level.

Some visual properties are brightness, color, contrast and motion blur.



#### **Contextual**

Elements that are aggregated to derive meaning.

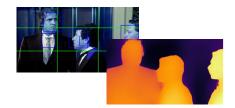
Some contextual properties are face detection, motion, camera shot and object detection.



#### Composition

Refers to a set principles in photography.

Some composition are rule-of-third, depth-of field and symmetry.





## How it works

#### **Video & Topic Analysis**

#### **Scene Analysis**

#### Frame Analysis

#### Frame Scoring Adjustments

#### Video Analysis



#### Detection by transcription



Detection by frames

Computer Vision Analysis















Upscale

Cropping

Edit

Save

#### Audio Analysis



Commedia italiana, Anni '80, Hotel di lusso, Enrico Montesano, Carlo Verdone, Diego Abatantuono, Personaggi eccentrici, Situazioni comiche, Gag surreali, Satira sociale





# Thumbnail editing

Provides tools for creating and control ing Integrates suggested frames, offers editing options.





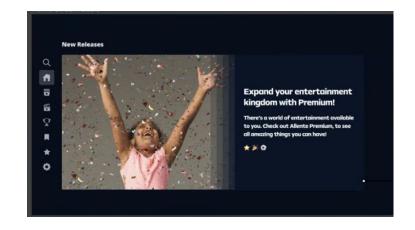
# Banner Personalization

Elevate user engagement with tailored content images



## From the head of the editorial team

- Automating the association of upselling banners to customer segments
- Tens of customer segments (based on: location, package, device)
- Each marketing campaign consists of ~2 banners (image + text) and multiple format variations
- Goal: match a customer segment to a banner (creative artwork)
- After the generation step, personalization of banners will follow



## A Solution in 3 steps

#### 1: Personalized Banners

ingest a new item 'Banner' and use its metadata to recommend it to users based on their profile



- Creative artworks
  - Metadata

#### 2: A|B testing of campaigns

perform A/B testing and check how the upselling campaigns are performing on the platform and optimize the strategy accordingly



Campaigns

#### 3: Optimization

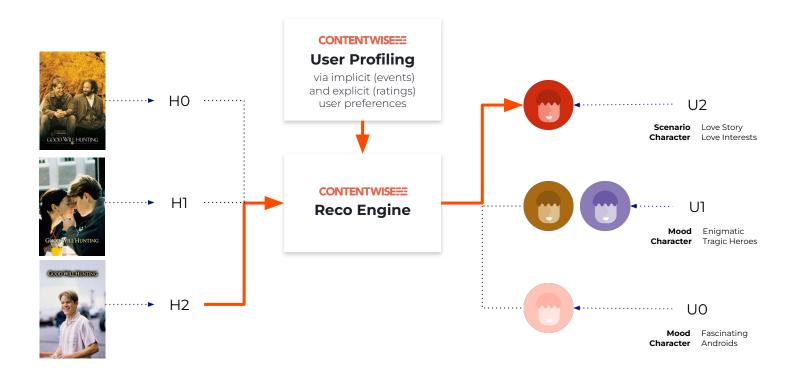
automatically generate multiple variations for each banner and use them to craft more compelling and personalized messages automatically



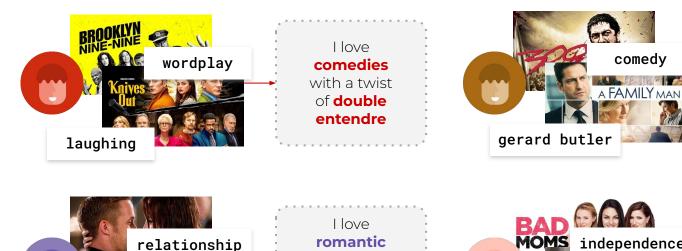
Variations



### User to artwork recommendation



## How it works: understand user profile



movies

with a lot

of amorous

tension



Hove

Gerard

**Butler** 

CRAZY

romance

**re**actually

## How it works: match user to image

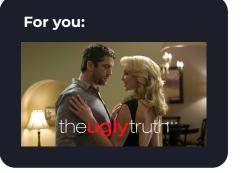




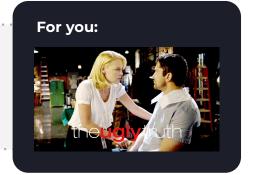








I love women in leadership who also convey their vulnerability



## **Elevate user engagement!**

Create tailored content images!

BOOK A DEMO!