



AKADEMIA GÓRNICZO-HUTNICZA
IM. STANISŁAWA STASZICA W KRAKOWIE

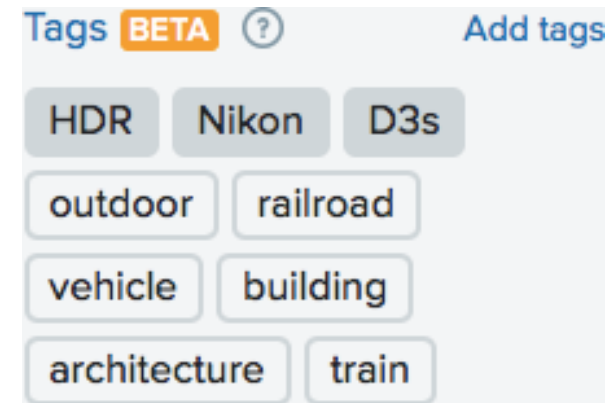
AGH UNIVERSITY OF SCIENCE
AND TECHNOLOGY



“Automatic Extraction of Machine Tags in Flickr Service”

Mikołaj Leszczuk, Michał Grega, Jarosław Gliwski

Need for More Flickr Machine Tags



System Architecture

flickr





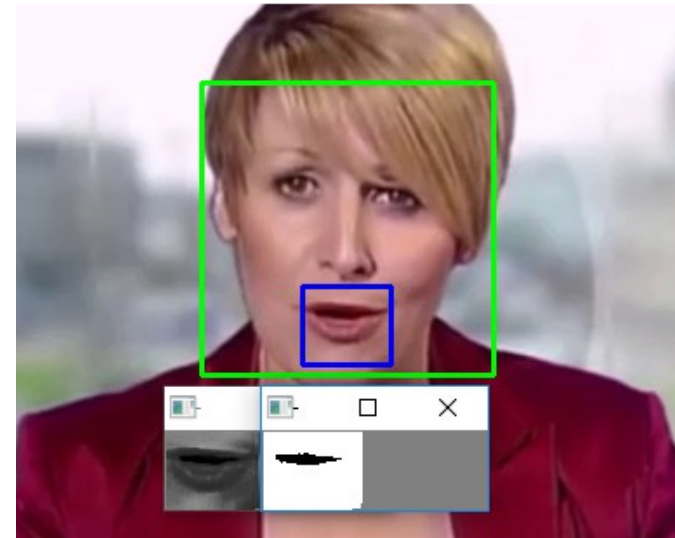
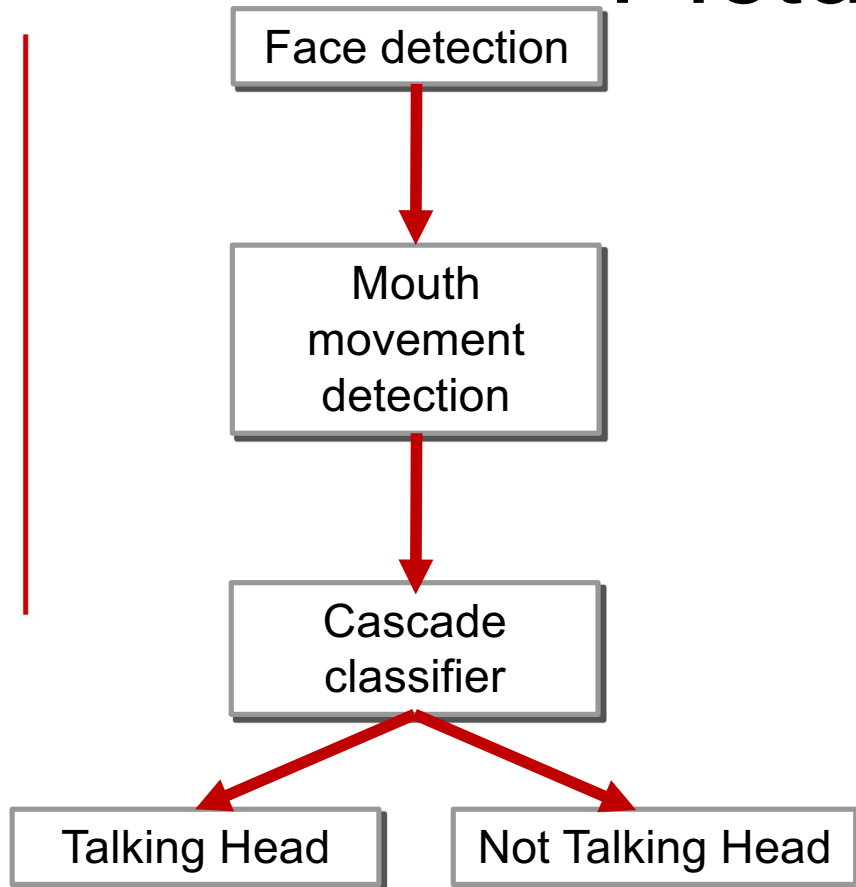
Previously Reported Automated Extraction of Machine Tags

- » Face detection/people head-counting
- » Face recognition
- » Text detection/recognition
- » Logo detection/recognition
- » Watermarks detection/recognition
- » Dominant colour of clothes
- » Near-Duplicates (image similarity)
- » Bokeh effect detector
- » Profile/en face classification
- » Smile detection
- » Unshaved faces
- » Red eyes detection
- » Nudity identification
- » Dominant colour counter
- » Landmark object recognition
- » Sky(line) detection
- » Emotion detection
- » Age classifier



New Automated Extraction of Machine Tags

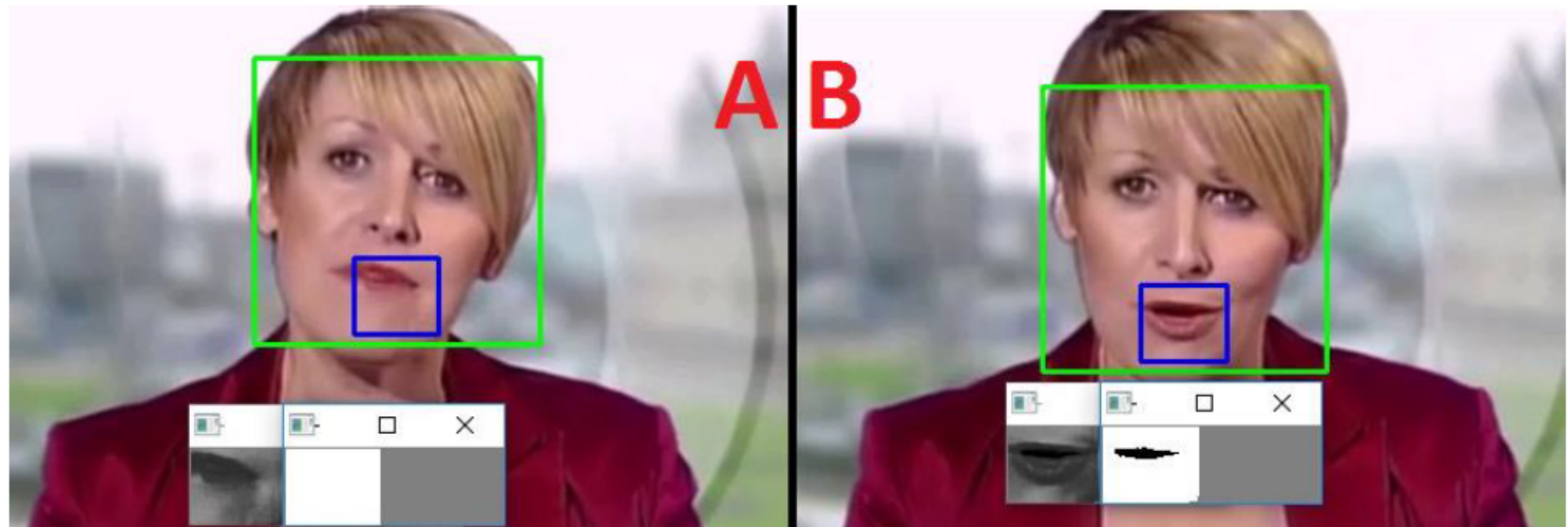
Detection of “Talking Head” Pictures (1/2)



- » Based on **Mouth Region of Interest** processing
- » Processed **picture-by-picture**

Detection of “Talking Head” Pictures (2/2)

- » Face detection using Haar Cascades
- » Sensitivity 88%, Specificity 100%
- » **Developed**



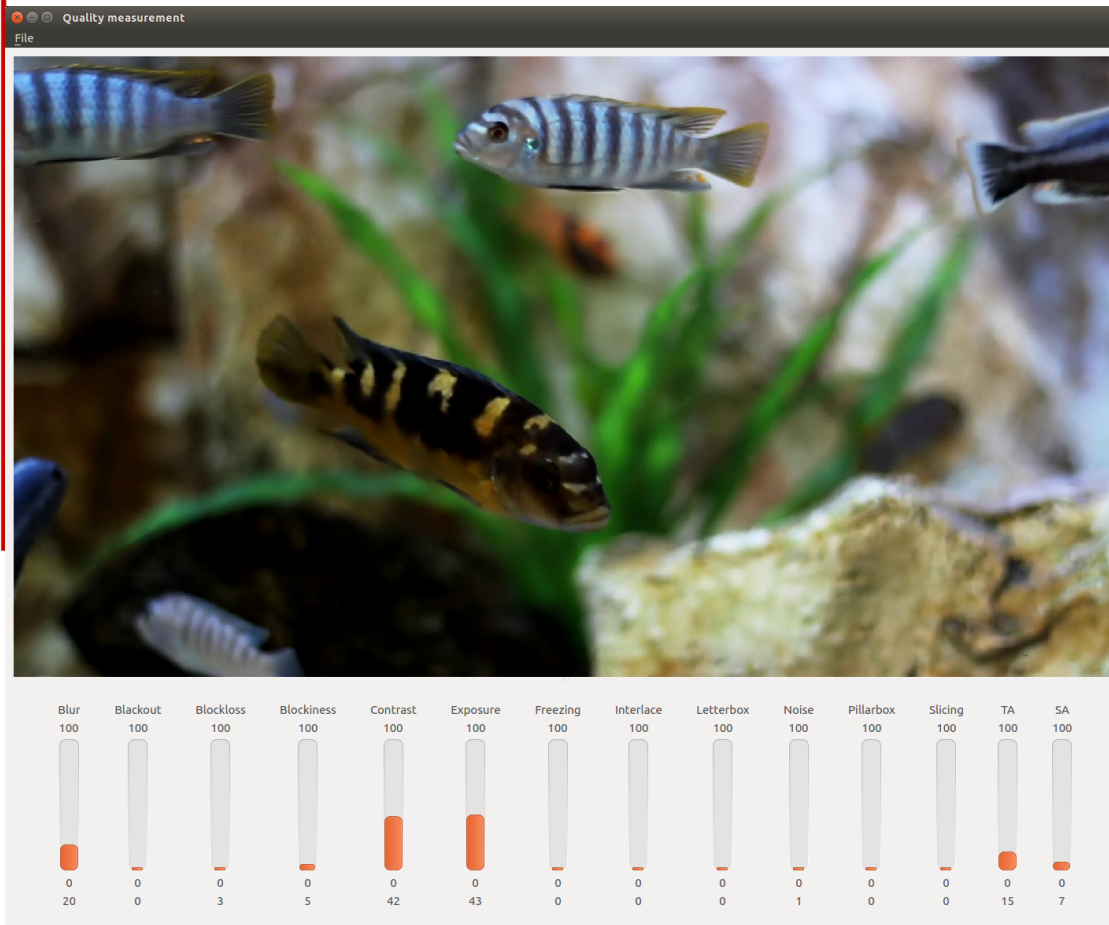
Detection of Day & Night Pictures



- » Recognising:
 - Day scenes
 - Night scenes
- » Based on **neural network**
- » Tested on **>2000 photos**
- » Accuracy **>90%**
- » **Developed**

MOAVI

Video Quality Indicators



- » Video quality assessment system for video sequences
- » **Quality of Experience (QoE)**
- » **13 quality parameters**
- » **Temporal Activity (TA)**
- » **Spatial Activity (SA)**
- » **Developed**

Recognition of Gestures



By Comixboy at English Wikipedia, CC BY 2.5,
<https://commons.wikimedia.org/w/index.php?curid=9672553>

- » Creation & implementation of algorithms to **recognize gestures in pictures**
- » **Pending**

Indoor/Outdoor

- » Recognising:
 - Indoor scenes
 - Outdoor scenes

» **Pending**



Proceeding

- » Create software allowing use of image indexing technology, to supplement **VIME** database of **Flickr** channel images
- » Expected result of work (**June 2017**): creation of machine tags in selected **Flickr** service