How to Test Video Summarization?

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Outline

1. Problem Statement

2. Experiment Design

Presentation of AMIS

AMIS: **A**ccess **M**ultilingual **I**nformation opinion**S**

- Starting date: December 2015
- Duration: 36 months
- The consortium is composed of partners from three countries:
  - France: University of Lorraine (LORIA), University of Avignon (LIA)
  - Poland: University of Science and Technology Kraków (AGH)
  - Spain: University of DEUSTO (Bilbao)

The key challenge and potential impact

- With the growth of information on internet, a new issue arises: How to access to a maximum of information?

- High educated people do not speak more than two or three languages, while the majority speaks only one, which makes this huge amount of information inaccessible

- How to make the main idea presented in a video in a foreign language accessible and easy to understand by everyone?

- Accessing to information in foreign languages would permit to access to the other side of a story

- Due to political, socio-cultural or religion reasons, divergence of opinions may exist within two medias from two different sources.

Main objectives

Objective 1: Understanding the main idea of a video by summarizing

- Input: A video in Arabic or French
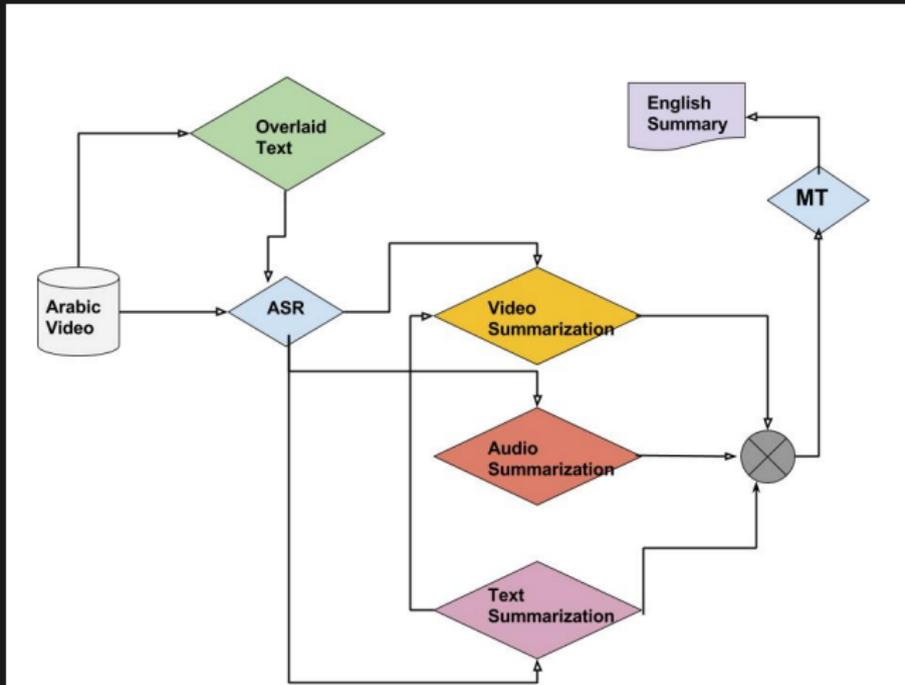- Output: A text and speech Synthesis in English

Objetcive2: Cross-lingual opinion Analysis

- Input: Arabic video will be compared to French or English video
- Output: A review concerning the degree of divergence between the two videos

Objective1: Understanding by summarizing

The global architecture allowing to reach the first objective
necessitates several components which collaborate.

The video Database

Data on conflicting topics for studying the cross-lingual opinions in Arabic, English and French.

Syria	Real Madrid - FC Barcelona	Animal rights
Women's rights	Homosexual marriage	Drug liberalization
Death sentence	Occupied territories	Trump

Arabic channels

English channels

French channels

Video Summarization

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What Do We Compare?

- Artistic view problems
  - Too short part of shot
  - Very similar shots
  - Stop "developing" scene
  - Artistic
- Parts of message
  - All critical parts are included
  - The order is logical
- Length
  - Shorter better
  - Shorter mean 1.5 minutes

What Do We Compare?

- Video + audio
  - Stopping in a middle of word or sentence
  - Answering a question not asked in the summary
  - Lipsync problem
- Information
  - The main message should be delivered
  - Some additional informations should be selected
  - A question if the tester knows the news

Crowd Sourcing Experiment

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- What about pair comparison?
- Does MOS make any sense?
- Control questions should refer to the "SRC"?

Questions