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## ***“Evaluation of Video Summarization”***

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NATIONAL SCIENCE CENTRE  
POLAND

VQEG



# Infobesity

Getting information off the  
Internet is like taking a  
drink from a fire hydrant.

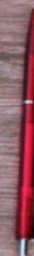
Mitchell Kapor



Videos

Automatic  
Summarization

Images



Documents



# Multimedia Content Translation (from Arabic) and Summarization





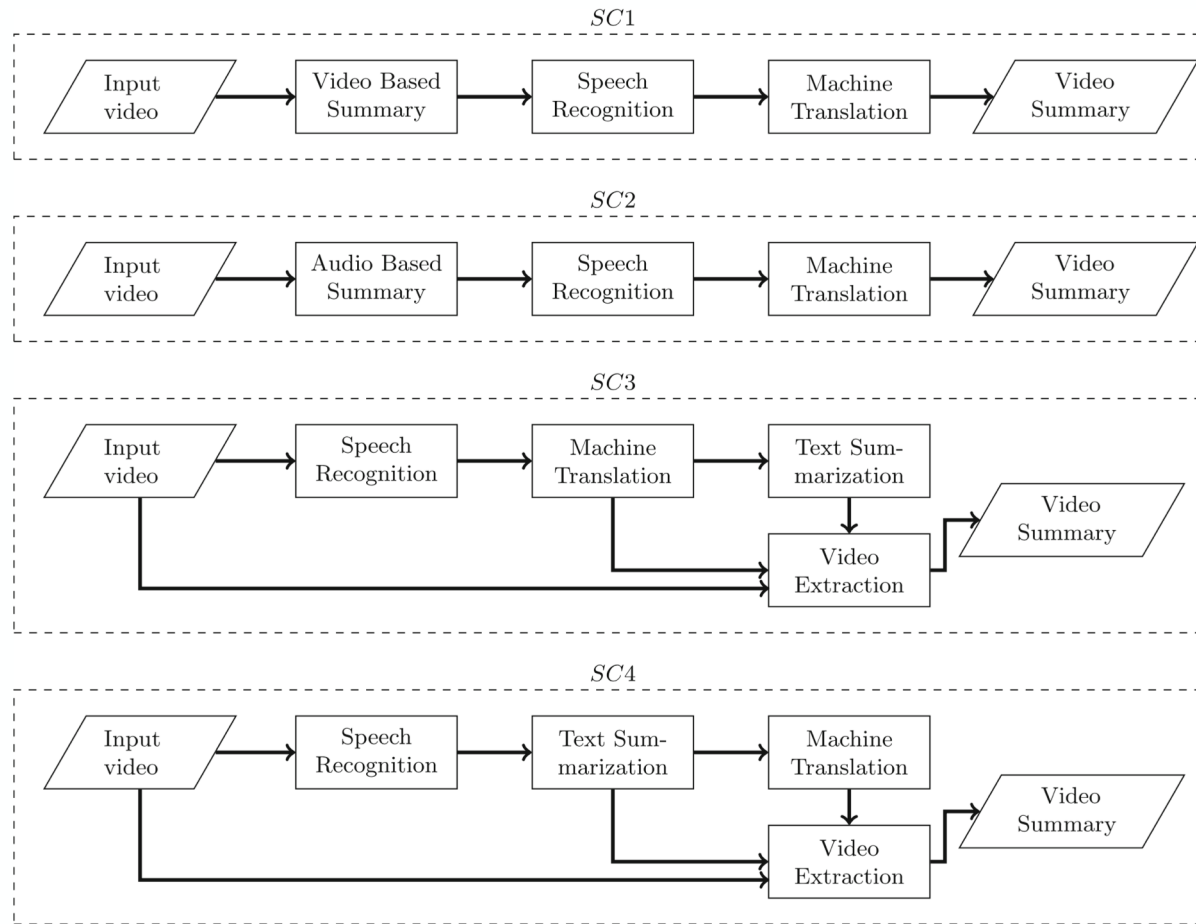
# Video Translation and Summarisation

- We need a shorter version of news
- Processing:





# Different Architectures (SCenarios) for Summarizing Video to Target Language





# How to Evaluate (Compare) Video Summarization Algorithms?

♡ —  
\$ —  
🏠 —



# Experiment Assumptions

- » **Subjective crowdsourcing test:**  
colleagues, students, other target groups
- » Absolute Category Rating (**ACR**), only for relative SCenario comparison
- » **9 SRCs, 4 HRCs (SCenarios), 36 PVSs**
- » **1 base SCR/test (9 PVSs/test)**
- » **~1 min/PVS, 10 min/test**



# SRC/HRC/PVS Matrix

	SRC1	SRC2	SRC3	SRC4	SRC5	SRC6	SRC7	SRC8	SRC9
HRC1 (SC1)	PVS1.1	PVS2.1	PVS3.1	PVS4.1	PVS5.1	PVS6.1	PVS7.1	PVS8.1	PVS9.1
HRC1 (SC2)	PVS1.2	PVS2.2	PVS3.2	PVS4.2	PVS5.2	PVS6.2	PVS7.2	PVS8.2	PVS9.2
HRC1 (SC3)	PVS1.3	PVS2.3	PVS3.3	PVS4.3	PVS5.3	PVS6.3	PVS7.3	PVS8.3	PVS9.3
HRC1 (SC4)	PVS1.4	PVS2.4	PVS3.4	PVS4.4	PVS5.4	PVS6.4	PVS7.4	PVS8.4	PVS9.4



# SRC/HRC/PVS Matrix

## Tester 1

	SRC1	SRC2	SRC3	SRC4	SRC5	SRC6	SRC7	SRC8	SRC9
HRC1 (SC1)	PVS1.1	PVS2.1	PVS3.1	PVS4.1	PVS5.1	PVS6.1	PVS7.1	PVS8.1	PVS9.1
HRC1 (SC2)	PVS1.2	PVS2.2	PVS3.2	PVS4.2	PVS5.2	PVS6.2	PVS7.2	PVS8.2	PVS9.2
HRC1 (SC3)	PVS1.3	PVS2.3	PVS3.3	PVS4.3	PVS5.3	PVS6.3	PVS7.3	PVS8.3	PVS9.3
HRC1 (SC4)	PVS1.4	PVS2.4	PVS3.4	PVS4.4	PVS5.4	PVS6.4	PVS7.4	PVS8.4	PVS9.4



# SRC/HRC/PVS Matrix

## Tester 1, Tester 2

	SRC1	SRC2	SRC3	SRC4	SRC5	SRC6	SRC7	SRC8	SRC9
HRC1 (SC1)	PVS1.1	PVS2.1	PVS3.1	PVS4.1	PVS5.1	PVS6.1	PVS7.1	PVS8.1	PVS9.1
HRC1 (SC2)	PVS1.2	PVS2.2	PVS3.2	PVS4.2	PVS5.2	PVS6.2	PVS7.2	PVS8.2	PVS9.2
HRC1 (SC3)	PVS1.3	PVS2.3	PVS3.3	PVS4.3	PVS5.3	PVS6.3	PVS7.3	PVS8.3	PVS9.3
HRC1 (SC4)	PVS1.4	PVS2.4	PVS3.4	PVS4.4	PVS5.4	PVS6.4	PVS7.4	PVS8.4	PVS9.4





# Entering Test System Including Arabic Mother Tongue Check

A screenshot of a web browser window. The address bar shows the URL 'pbz.kt.agh.edu.pl/~testySubiektywne/AmisMOS/'. The page content is a login form titled 'Enter the test system'. The form includes a 'Login:' section with a text input field labeled 'Username'. Below this is a section titled 'Do you know Arabic?' with two radio button options: 'Yes' and 'No'. A 'Login' button is positioned at the bottom of the form. Below the form is a large text block providing instructions for the test. The background of the page is a solid blue color.

AMIPaC psycho-physical test x +

Not Secure | pbz.kt.agh.edu.pl/~testySubiektywne/AmisMOS/

### Enter the test system

Login:

Do you know Arabic?

Yes

No

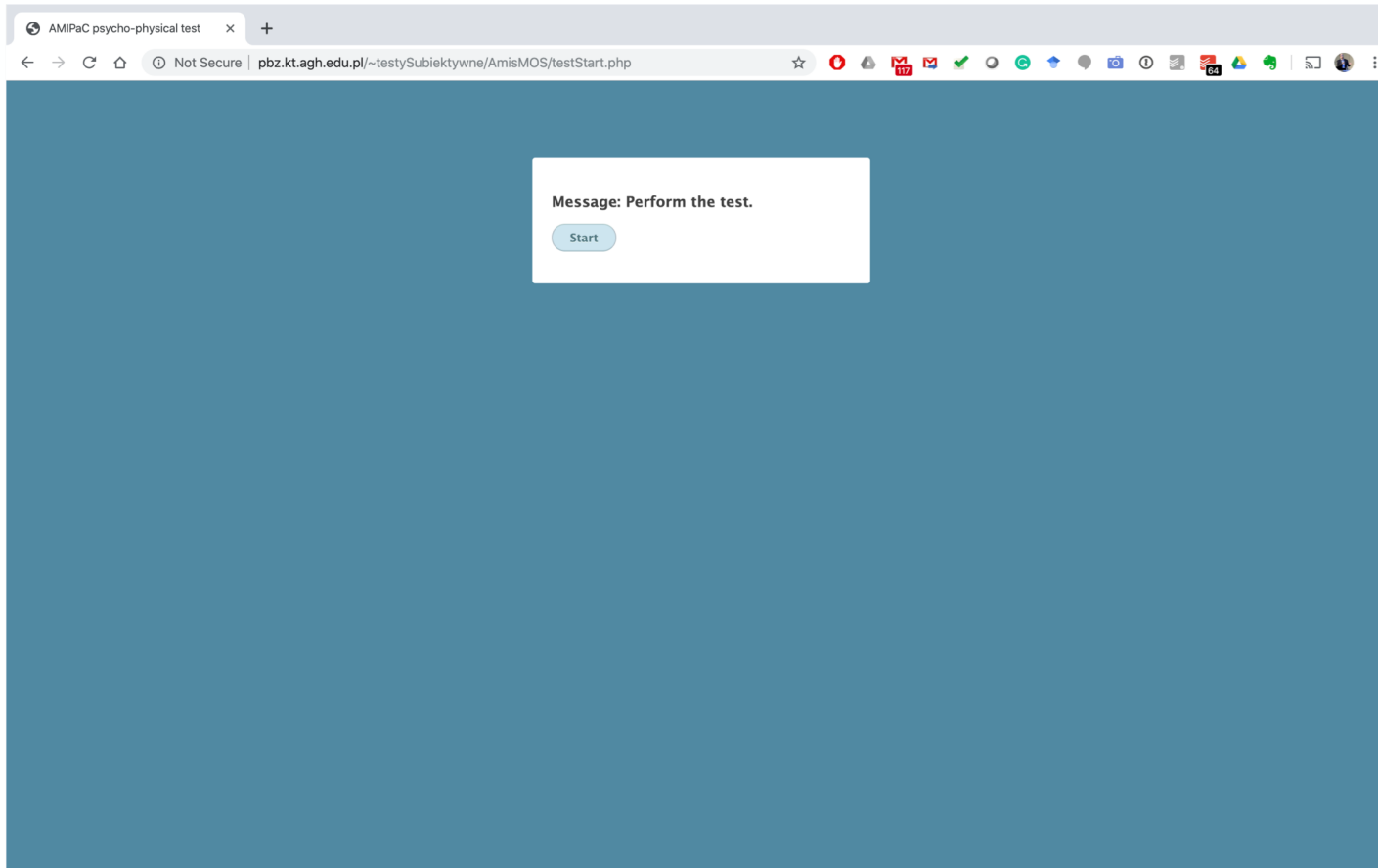
Login

We kindly ask you to do the test located at <http://amis.kt.agh.edu.pl> The purpose of this test is to find out your individual opinion on the quality of the presented video summarisations. Please assess how well we prepared the summarisation. Please take into account only summarization quality. Each summarization of the video has about a minute. The test length is nine video summaries. At the end of the video summary, you are asked to rate the entire video summary. We prepared the final quality assessment on a discrete scale: bad, poor, average, good, excellent. Please select the appropriate answer and press the button to go to the next sequence. Please treat each view of the summary of the video as an independent. Video summaries cannot be undone or paused. It is not possible to display the video summary again. The total time spent on the experiment is 10 minutes, of which most of the time it will take to watch the video summaries. Please remember that this is your subjective opinion. There are no better or worse answers. We are interested in your advice **regarding the quality of summarizations!**

In case of any problems please contact with [leszczuk@agh.edu.pl](mailto:leszczuk@agh.edu.pl)

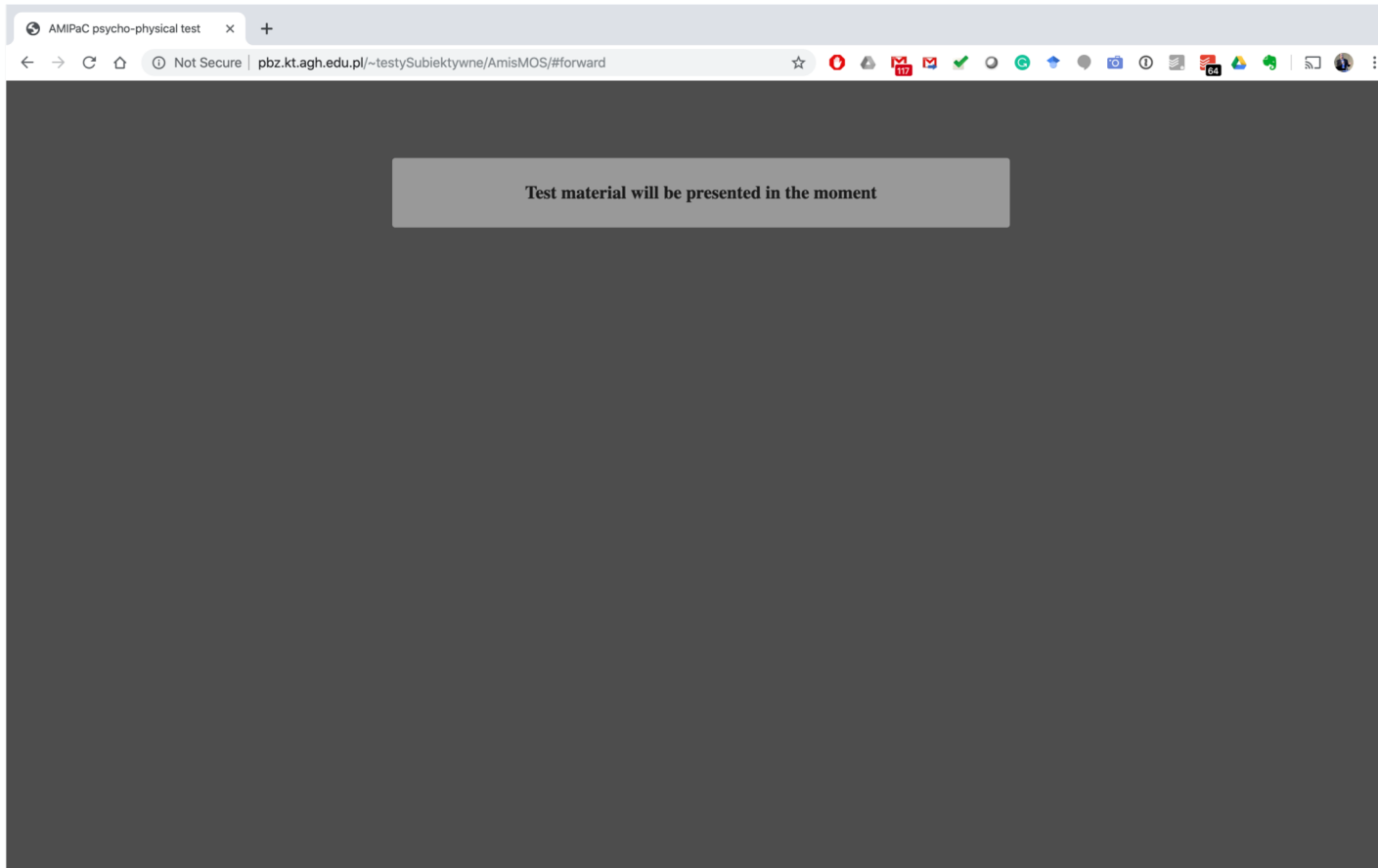


# Starting Test






# “Chillout” Screen





# Test Material (Video) Presentation

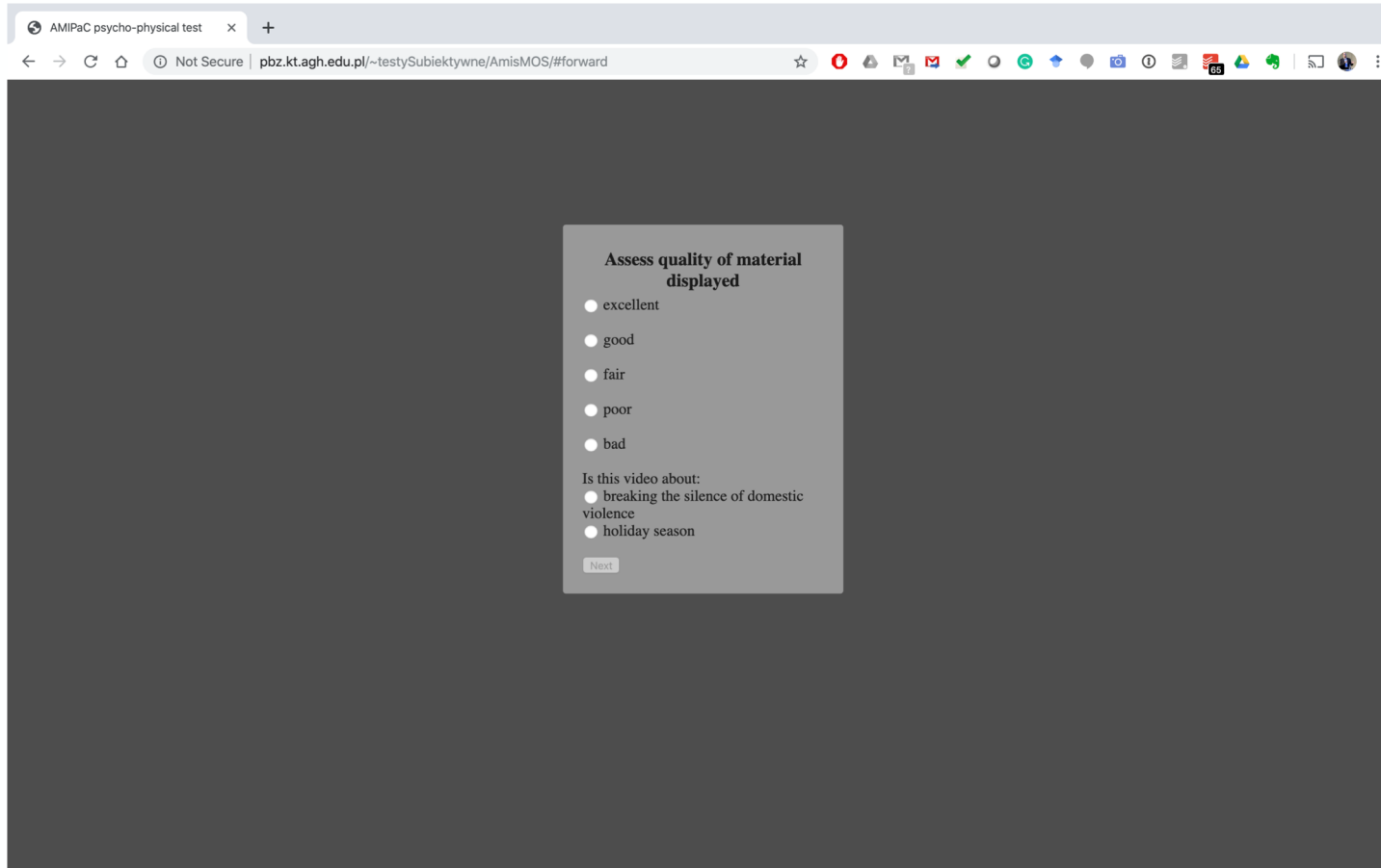


AMIPaC psycho-physical tes x +  
Not Secure | pbz.kt.agh.edu.pl/~testySubiektywne/AmisMOS/#forward

Syrian pounds and the estimated between  
one million to ten million and Gaza every gear

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ABC

# Assessing Quality (TBD: Crowdsourcing Check)



AMIPaC psycho-physical test x +

Not Secure | pbz.kt.agh.edu.pl/~testySubiektywne/AmisMOS/#forward

**Assess quality of material displayed**

- excellent
- good
- fair
- poor
- bad

Is this video about:

- breaking the silence of domestic violence
- holiday season

Next

# Request for Participation

- » Link: <http://amis.kt.agh.edu.pl>
- » **Please:**
  - » **Find 10 min to help us**
  - » **Circulate link among colleagues, students, etc.**
- » **Deadline: 2 weeks (end of October 2019)**