suJSON - A Uniform JSON-based Subjective Data Format

Jakub Nawała, Lucjan Janowski, Zhi Li
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Situation

- We want a uniform interface for a subjective data exchange
- Universal enough to describe all subjective tests’ data
- Should capture as much information as possible
- Should not require any additional text files
- We start from subjective tests for video
- We plan to address all types of subjective tests
Workflow

1. Define general requirements
2. Define a (preliminary) data format
3. Test the format
   - with legacy data-sets
   - by asking the community
   - in a real-life scenario
4. Propose improvements
Experiment 1

Task 1: Please watch 3 videos and score the first 2 individually and compare the 2\textsuperscript{nd} with the 3\textsuperscript{rd} one

- **Question 1**: Please rate the overall quality
- **Question 2**: Please compare 2 videos and say if the 1\textsuperscript{st} is better or worse
Entity-Relationship Diagram

Subject

Trial/Score

PVS

SRC

many to one

many to many

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Entity-Relationship Diagram

Subject

Experiment

Task

Score

Question

Scale

Trial

Trial_PVS

Score_PVS

HRC

PVS

SRC

Views

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Entity-Relationship Diagram

https://bit.ly/2NImZy2
suJSON Tools

- Read XLS or MySQL database,
- Generate suJSON,
- Configuration file needed
  - Subjects characteristics,
  - Environmental setup,
  - Questions asked,
  - Scale(s) used.
• Tested on HDTV Phase I XLS file,

• and MySQL database used internally at AGH for subjective testing,

• Live demo.
Where Are We Going?

- Share suJSON and tools
  - Detailed format description, code & examples
- suJSON tools using ER diagram as a default schema
- ER diagram revisited to make it more robust
- JSON as the target file format (ER diagram just for the exemplary database)
Conclusions

- It is difficult to propose a standardised subjective data format
- Making the format fit all past and future experiments is probably infeasible
1. Do you agree that having a standardised subjective data format is crucial?

2. Where should we stop with improving the format?
   a. Maybe now?