

More Ecologically Valid Subjective Experiments

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Different Measurement Points

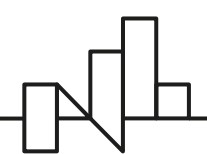


User Experience

Quality of Experience

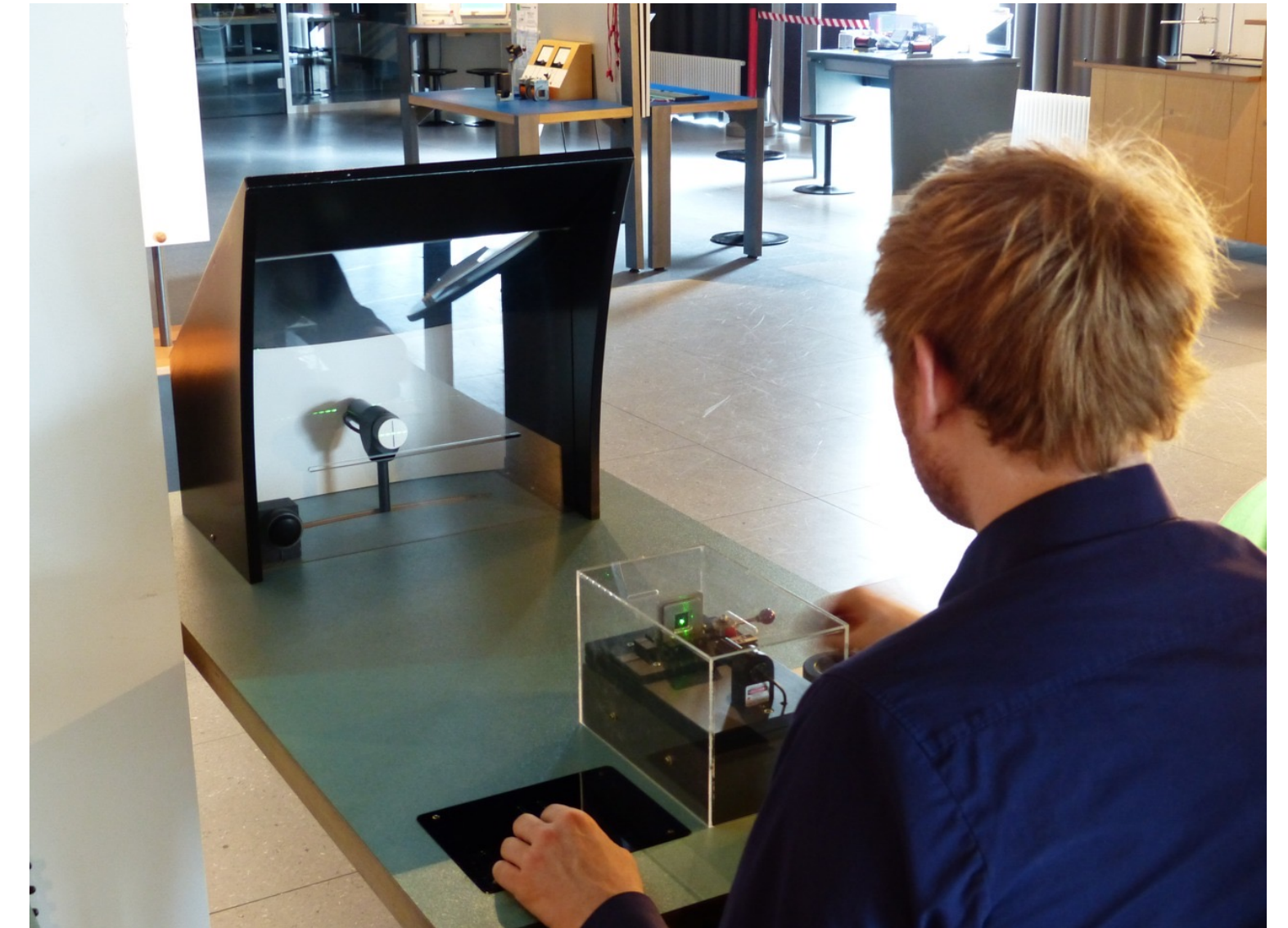
Quality of Pixels
Quality of Display?

HVS Human Visual System



Examples

- HVS: How much gaussian blur must be added that you are not able to recognized a face
 - Specific lab environment



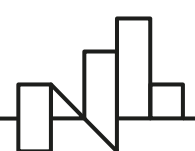
Examples

- HVS: How much gaussian blur must be added that you are not able to recognized a face
 - Specific lab environment
- QoP: Which compression setting is the best?
 - Lab or similar environment, comparing the same sources



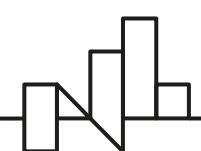
Examples

- HVS: How much gaussian blur must be added that you are not able to recognize a face
 - Specific lab environment
- QoP: Which compression setting is the best?
 - Lab or similar environment, comparing the same sources
- QoE: Which compression is best considering the current context of the user?
 - Watching what a user is doing



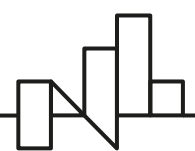
Examples

- HVS: How much gaussian blur must be added that you are not able to recognized a face
 - Specific lab environment
- QoP: Which compression setting is the best?
 - Lab or similar environment, comparing the same sources
- QoE: Which compression is best considering the current context of the user?
 - Watching what a user is doing
- UX: How to make a better product?
 - Watching what a user is doing



Experiments You Could Repeat

- ACR Without the Scale
- Your YouTube Our Lab



ACR Without the Scale

- Problem to solve:
 - We get very limited information from a tester
 - The process of selecting an answer is unknown
- Solution:
 - Thinking aloud
 - A preselected world is changed to a speech description
 - It is ok to start description seeing the video
 - We see the evolution of the scoring system
 - We see all quality dimensions
 - The rest of the experiment is the same
- Problems:
 - Data analysis is more challenging
 - We do not know if testers really say something



ACR Without the Scale The Interface

Progress

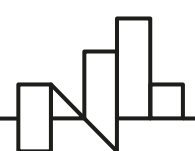
138 / 160

What is your opinion of the video quality? User ID: 101

Submit and continue

<https://github.com/Qub3k/avrateNG>

(which is a modified version of <https://github.com/Telecommunication-Telemedia-Assessment/avrateNG>)



Your YouTube Our Lab

- Problem to solve:
 - 10 second videos without the audio are not what a user watches
 - Normally we select the content based on our preferences
 - We are not forced to see the whole content
- Solution:
 - A rare popup with a quality question
 - A user selects the content
 - Watching makes them forget about the task
 - Real experience
 - We use a standard quality scale
- Problems:
 - People do not just watch YouTube
 - People are so much into the experience that quality is forgotten
 - It is difficult to follow what is the objective quality



Your YouTube Our Lab The Interface

Klient „NerdCoder” rozpoczął debugowanie tej przeglądarki Anuluj

kurzgesagt

3 °C

▶ IPCC, 2021
▶ Arnell et al., 2019
▶ UNEP 2021

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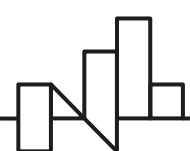
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kurzgesagt Aby zamknąć pełny ekran, naciśnij F11

4-8 °C

NGER

AGE

Oceń jakość filmu od strony audio-wizualnej

- 5. Doskonała
- 4. Dobra
- 3. Przeciętna
- 2. Niska
- 1. Zła

▶ Andrew et al., 2018
▶ Sherwood & Huberb, 2010

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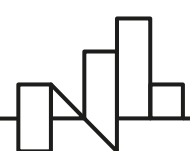
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