# Measuring the quality of a machine learning based silhouette extractor

Participation in Peter Remøy Paulsens master thesis

*Må fylles ut

## Introduction

Thank you very much for your participation in this experiment. This study will last approx. 15 minutes.

During this experiment you will be watching 12 videos processed by a machine learning model for extracting the silhouette of a person. The 12 videos are constructed for the evaluation purpose.

The experiment is divided into a few parts:
1) You will sign the consent form
2) You will fill in a demographic questionnaire that captures mostly statistical data. Afterwards, you will start the evaluation itself.
3) You will watch a video and answer some questions about the video you just saw
4) You will repeat step 2) for all 12 videos
5) You will lastly be able to add any additional feedback regarding the contents of the experiment

Please note, you are not being evaluated, but you are evaluating the videos!

All the data that you provide and we are recording during this experiment will be pseudonymized.
During the experiment you always have the chance to leave the study without the need to provide any reason. In case you have questions during the experiment at any point please feel free to ask the experimenter.

And now: Have fun during the experiment!

## Consent form

I have read the introduction information for the study Measuring the quality of a machine learning based silhouette extractor. I will participate in this study. I was informed that the following data will be obtained today during this study from me: Demographic Questionnaire and Opinion Questionnaire. I approve that all recorded data will be saved and will be used pseudonymized (e.g. identification data will be stored separately from recorded data and only be accessible to a small circle of authorized personnel) for research analysis. All data I give will be handled confidentially. All information will be used for research purposes only. Personal data will not be given to any third party.

I am aware that participating in this study is voluntary and I can withdraw anytime without giving any reason. Doing so I will not suffer any disadvantage.

Additionally, I am aware that I will handle everything confidentially, I hear and see today, and I will not give any information to other people.

1.    Have you signed the consent form? *

   *Markér bare én oval.*

   ( ) Yes

## Demographic mapping

This section will gather some info about you as a participant.

The data is anonymous and will not be mapped back to you.

2.   How old are you?

*Markér bare én oval.*

◯ Under 18

◯ 18 - 24

◯ 25 - 34

◯ 35 - 44

◯ 45 - 54

◯ 55 - 64

◯ Older than 65

3.   Gender

*Markér bare én oval.*

◯ Female

◯ Male

◯ Other

◯ Prefer not to say

4.   Education

*Markér bare én oval.*

◯ Primary school

◯ High school or equivalent

◯ Some higher education, no degree

◯ Two year-degree

◯ Bachelor's degree

◯ Master's degree

◯ Higher than master's degree

5.   What is your occupation? If you are a student, please state the category most fitting to your study. Don't answer if you're not working.

List of categories collected from https://utdanning.no/interesseoversikt

*Markér bare én oval.*

○ Alternative treatment

○ Children

○ Construction

○ Design

○ Animals

○ Electronics

○ Fishing and aquaculture

○ Science and innovation

○ Health

○ History

○ Craftsmanship

○ Sports

○ Industry

○ IT and computers

○ Work abroad

○ Climate and environment

○ Office and administration

○ Arts and culture

○ Agriculture

○ Law and order

○ Air space

○ Aviation

○ Food and drinks

○ Media and communications

○ Mechanics

○ People

○ Nature

○ Oil, gass and energy

○ Pedagogy

○ Science

◯ Tourism

◯ Religion

◯ Sales and service

◯ Society

◯ Security and emergency preparedness

◯ Shipping

◯ Beauty and well-being

◯ Language

◯ Technology

◯ Transport

◯ Economics

Video 1 of 12



http://youtube.com/watch?v=ItD8V6YHuoE

6.   How satisfied are you with the quality of the silhouette extraction?

*Markér bare én oval.*

◯ Completely satisfied

◯ Very satisfied

◯ Moderately satisfied

◯ Slightly satisfied

◯ Not at all satisfied

## A definition of artefact

Any error in the perception or representation of any information in the image

7.    Did you notice any artefacts with the silhouette extraction?

*Markér bare én oval.*

◯ Extremely noticable

◯ Very noticable

◯ Moderately noticable

◯ Slightly noticable

◯ Not at all noticable

8.    Do you think the artefacts were annoying?

*Markér bare én oval.*

◯ Extremely annoying

◯ Very annoying

◯ Moderately annoying

◯ Slightly annoying

◯ Not at all annoying

Video 2 of 12

 http://youtube.com/watch?v=t4AtEq01mF8

9.   How satisfied are you with the quality of the silhouette extraction?

*Markér bare én oval.*

( ) Completely satisfied

( ) Very satisfied

( ) Moderately satisfied

( ) Slightly satisfied

( ) Not at all satisfied

10.  Did you notice any artefacts with the silhouette extraction?

*Markér bare én oval.*

( ) Extremely noticable

( ) Very noticable

( ) Moderately noticable

( ) Slightly noticable

( ) Not at all noticable

11.  Do you think the artefacts were annoying?

*Markér bare én oval.*

( ) Extremely annoying

( ) Very annoying

( ) Moderately annoying

( ) Slightly annoying

( ) Not at all annoying

Video 3 of 12

http://youtube.com/watch?v=midiWH7B3Q4

12. How satisfied are you with the quality of the silhouette extraction?

*Markér bare én oval.*

( ) Completely satisfied

( ) Very satisfied

( ) Moderately satisfied

( ) Slightly satisfied

( ) Not at all satisfied

13. Did you notice any artefacts with the silhouette extraction?

*Markér bare én oval.*

( ) Extremely noticable

( ) Very noticable

( ) Moderately noticable

( ) Slightly noticable

( ) Not at all noticable

14.    Do you think the artefacts were annoying?

*Markér bare én oval.*

◯ Extremely annoying

◯ Very annoying

◯ Moderately annoying

◯ Slightly annoying

◯ Not at all annoying

Video 4 of 12



http://youtube.com/watch?v=LYOD-Ayv-VI

15.    How satisfied are you with the quality of the silhouette extraction?

*Markér bare én oval.*

◯ Completely satisfied

◯ Very satisfied

◯ Moderately satisfied

◯ Slightly satisfied

◯ Not at all satisfied

16.    Did you notice any artefacts with the silhouette extraction?

*Markér bare én oval.*

( ) Extremely noticable

( ) Very noticable

( ) Moderately noticable

( ) Slightly noticable

( ) Not at all noticable

17.    Do you think the artefacts were annoying?

*Markér bare én oval.*

( ) Extremely annoying

( ) Very annoying

( ) Moderately annoying

( ) Slightly annoying

( ) Not at all annoying

Video 5 of 12



http://youtube.com/watch?v=toRZK4Zd2zE

18. How satisfied are you with the quality of the silhouette extraction?

*Markér bare én oval.*

○ Completely satisfied

○ Very satisfied

○ Moderately satisfied

○ Slightly satisfied

○ Not at all satisfied

19. Did you notice any artefacts with the silhouette extraction?

*Markér bare én oval.*

○ Extremely noticable

○ Very noticable

○ Moderately noticable

○ Slightly noticable

○ Not at all noticable

20. Do you think the artefacts were annoying?

*Markér bare én oval.*

○ Extremely annoying

○ Very annoying

○ Moderately annoying

○ Slightly annoying

○ Not at all annoying

Video 6 of 12

http://youtube.com/watch?v=j9HAYcmaHfo

21.    How satisfied are you with the quality of the silhouette extraction?

*Markér bare én oval.*

○ Completely satisfied

○ Very satisfied

○ Moderately satisfied

○ Slightly satisfied

○ Not at all satisfied

22.    Did you notice any artefacts with the silhouette extraction?

*Markér bare én oval.*

○ Extremely noticable

○ Very noticable

○ Moderately noticable

○ Slightly noticable

○ Not at all noticable

23.　　Do you think the artefacts were annoying?

*Markér bare én oval.*

◯ Extremely annoying

◯ Very annoying

◯ Moderately annoying

◯ Slightly annoying

◯ Not at all annoying

Video 7 of 12

 http://youtube.com/watch?v=A6eBLW0Wioo

24.　　How satisfied are you with the quality of the silhouette extraction?

*Markér bare én oval.*

◯ Completely satisfied

◯ Very satisfied

◯ Moderately satisfied

◯ Slightly satisfied

◯ Not at all satisfied

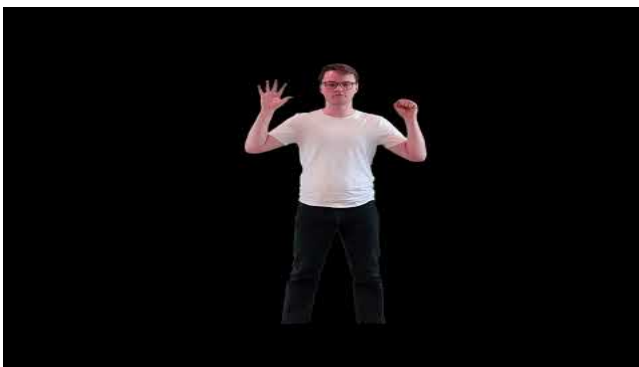25.    Did you notice any artefacts with the silhouette extraction?

*Markér bare én oval.*

( ) Extremely noticable

( ) Very noticable

( ) Moderately noticable

( ) Slightly noticable

( ) Not at all noticable

26.    Do you think the artefacts were annoying?

*Markér bare én oval.*

( ) Extremely annoying

( ) Very annoying

( ) Moderately annoying

( ) Slightly annoying

( ) Not at all annoying

Video 8 of 12



http://youtube.com/watch?v=4C0TVFPapGU

27.    How satisfied are you with the quality of the silhouette extraction?

*Markér bare én oval.*

    ( ) Completely satisfied

    ( ) Very satisfied

    ( ) Moderately satisfied

    ( ) Slightly satisfied

    ( ) Not at all satisfied

28.    Did you notice any artefacts with the silhouette extraction?

*Markér bare én oval.*

    ( ) Extremely noticable

    ( ) Very noticable

    ( ) Moderately noticable

    ( ) Slightly noticable

    ( ) Not at all noticable

29.    Do you think the artefacts were annoying?

*Markér bare én oval.*

    ( ) Extremely annoying

    ( ) Very annoying

    ( ) Moderately annoying

    ( ) Slightly annoying

    ( ) Not at all annoying

Video 9 of 12

http://youtube.com/watch?v=sbgo45c3nfE

30.    How satisfied are you with the quality of the silhouette extraction?

*Markér bare én oval.*

( ) Completely satisfied

( ) Very satisfied

( ) Moderately satisfied

( ) Slightly satisfied

( ) Not at all satisfied

31.    Did you notice any artefacts with the silhouette extraction?

*Markér bare én oval.*

( ) Extremely noticable

( ) Very noticable

( ) Moderately noticable

( ) Slightly noticable

( ) Not at all noticable

32.    Do you think the artefacts were annoying?

*Markér bare én oval.*

◯ Extremely annoying

◯ Very annoying

◯ Moderately annoying

◯ Slightly annoying

◯ Not at all annoying

Video 10 of 12



http://youtube.com/watch?v=Gp4jLwgwWYM

33.    How satisfied are you with the quality of the silhouette extraction?

*Markér bare én oval.*

◯ Completely satisfied

◯ Very satisfied

◯ Moderately satisfied

◯ Slightly satisfied

◯ Not at all satisfied

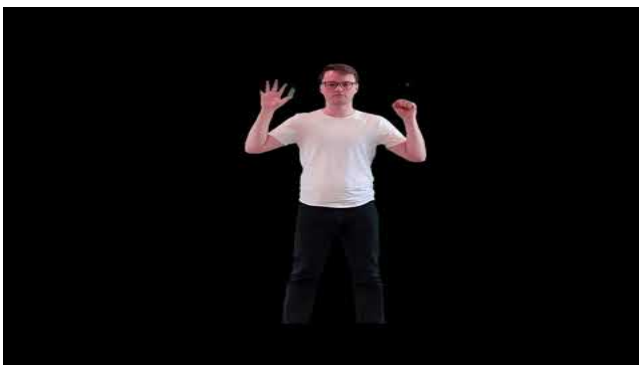34.    Did you notice any artefacts with the silhouette extraction?

*Markér bare én oval.*

◯ Extremely noticable

◯ Very noticable

◯ Moderately noticable

◯ Slightly noticable

◯ Not at all noticable

35.    Do you think the artefacts were annoying?

*Markér bare én oval.*

◯ Extremely annoying

◯ Very annoying

◯ Moderately annoying

◯ Slightly annoying

◯ Not at all annoying

Video 11 of 12



http://youtube.com/watch?v=p_YCR-OCmQo

36.    How satisfied are you with the quality of the silhouette extraction?

*Markér bare én oval.*

( ) Completely satisfied

( ) Very satisfied

( ) Moderately satisfied

( ) Slightly satisfied

( ) Not at all satisfied

37.    Did you notice any artefacts with the silhouette extraction?

*Markér bare én oval.*

( ) Extremely noticable

( ) Very noticable

( ) Moderately noticable

( ) Slightly noticable

( ) Not at all noticable

38.    Do you think the artefacts were annoying?

*Markér bare én oval.*

( ) Extremely annoying

( ) Very annoying

( ) Moderately annoying

( ) Slightly annoying

( ) Not at all annoying

Video 12 of 12

[http://youtube.com/watch?v=SxBDid4gl3A](http://youtube.com/watch?v=SxBDid4gl3A)

39. How satisfied are you with the quality of the silhouette extraction?

    *Markér bare én oval.*

    ◯ Completely satisfied

    ◯ Very satisfied

    ◯ Moderately satisfied

    ◯ Slightly satisfied

    ◯ Not at all satisfied

40. Did you notice any artefacts with the silhouette extraction?

    *Markér bare én oval.*

    ◯ Extremely noticable

    ◯ Very noticable

    ◯ Moderately noticable

    ◯ Slightly noticable

    ◯ Not at all noticable

41.    Do you think the artefacts were annoying?

*Markér bare én oval.*

◯ Extremely annoying

◯ Very annoying

◯ Moderately annoying

◯ Slightly annoying

◯ Not at all annoying

Thank you!          You have now completed rating all of the videos. Thank you for participating.

42.    Do you have any additional feedback on the contents of the videos? What is your general impression? Any feedback is welcome. Du kan skrive på norsk om du vil.

_____

_____

_____

_____

_____

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