

SmAPSHOT Mobile Application

Master's Thesis



Today's Agenda

1. Introduction
2. Purpose
3. Rephotography
4. Orientation Angles
5. Mobile Application
6. Usability Testing

... 10-15 minutes

Who We Are

Alfred Hirschfeld

- 25 years
- Malmö, Sweden
- M.Sc. Engineer, dep. of Computer Science (Lund University)
- Master's thesis, Interaction Design
- alfred@hirschfeld.se

Christoffer Karlsson

- 24 years
- Malmö, Sweden
- M.Sc. Engineer, Surveying and Land Management (Lund University)
- Master's thesis, Geographical Information System
- ch1322ka-s@student.lu.se



Introduction

What is Smapshot?

Web-based project, goal is to create a 3D rendered globe by having volunteers georeferencing photos.



Mobile application?

Develop a prototype mobile application for Smapshot. Be able to retake historical photos from Smapshot in order to compare past with present.

Rephotography?

Rephotography is the act of recapturing the same scene of an existing photograph, from the same viewpoint. Tool for studying change.



Design?

Design plays a key role in developing mobile applications. How to satisfy users? Focus on what the user needs.

Purpose

GIS purpose

“Rephotography in a Smapshot mobile app”

Design purpose

“Develop & design a mobile app for Smapshot”

Why Rephotography?

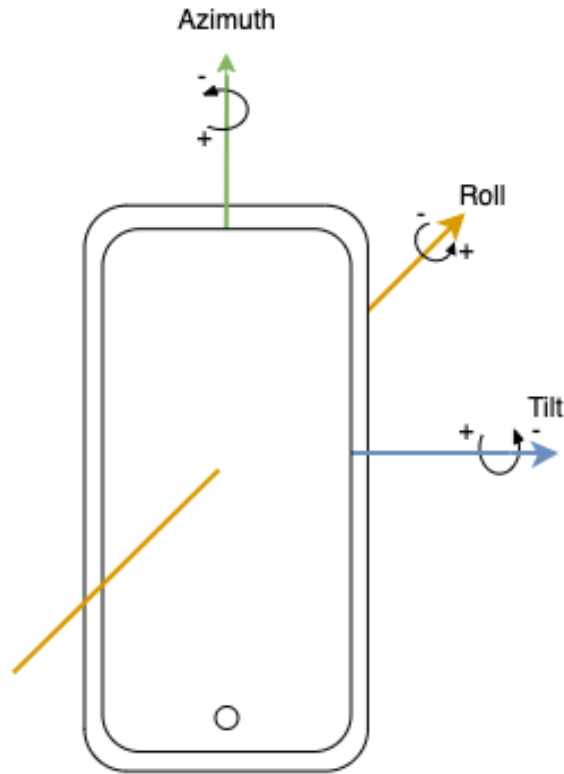
- Changes in nature
 - Climate change (glacier melting)
 - Natural hazard (erosion, flooding)
- Human influence
 - Urbanisation



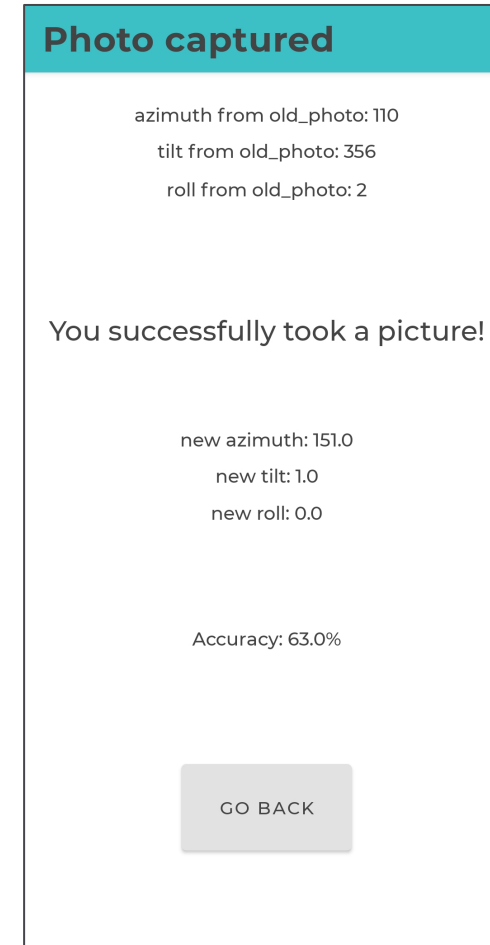
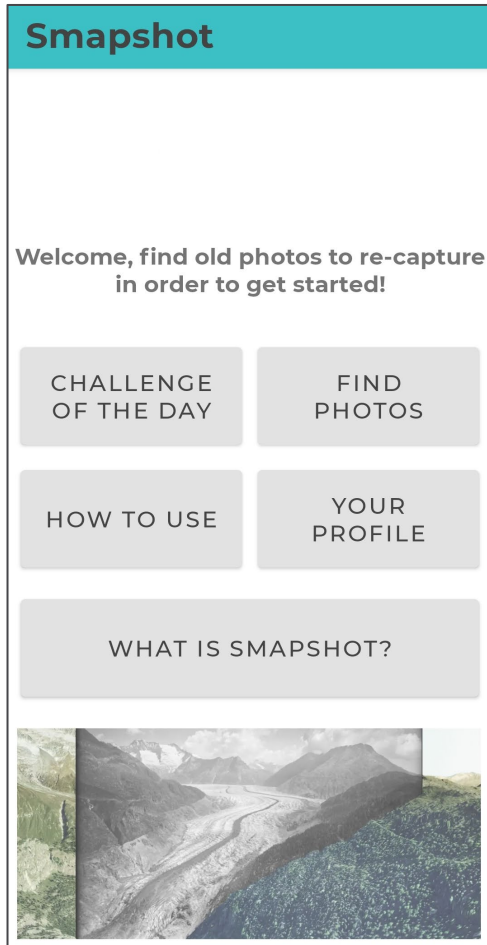
Rétro Lausanne, <https://lausanneretro.ch/2021/07/1928-2021-le-pont-de-chailly/>

Orientation Angles

- Azimuth
- Roll
- Tilt (pitch)



Mobile Application



Past vs. present



Old photo example

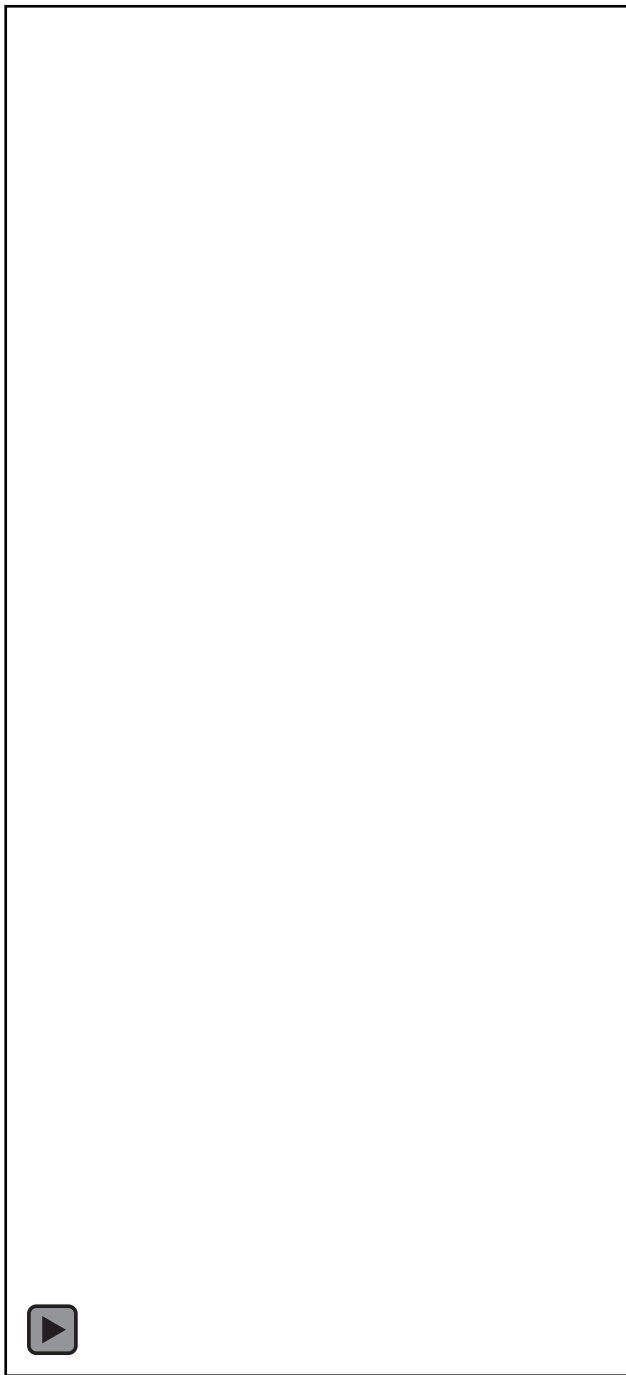


New photo



Result

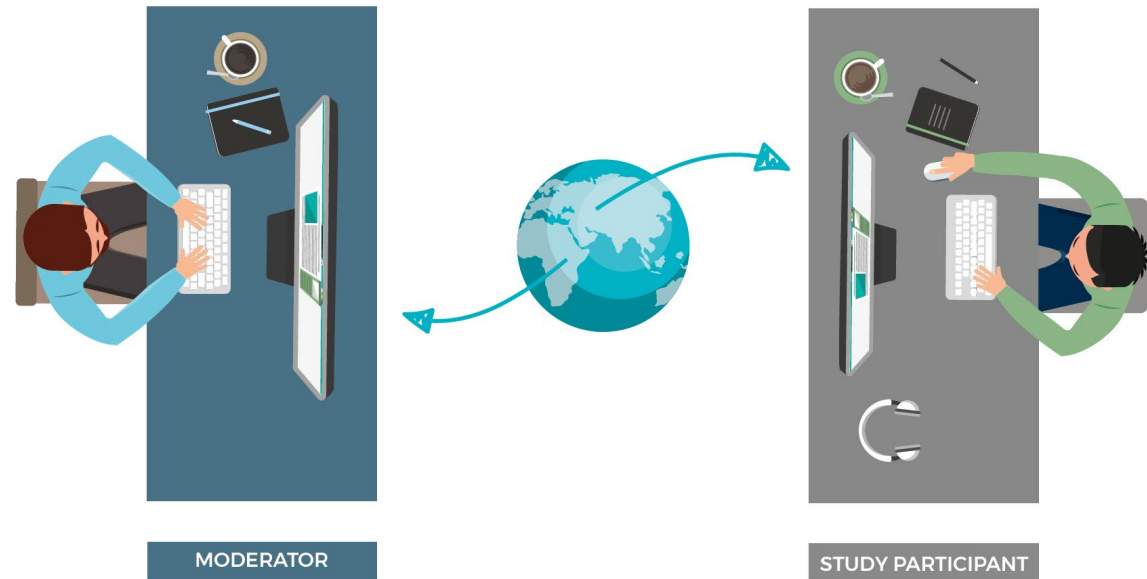
Transparency (video demo)



Usability Testing

- Evaluate design
- Useful features?
- Capture feedback

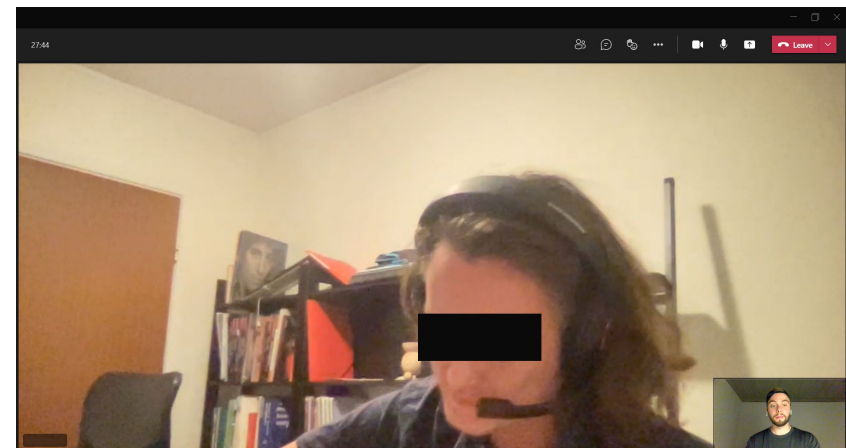
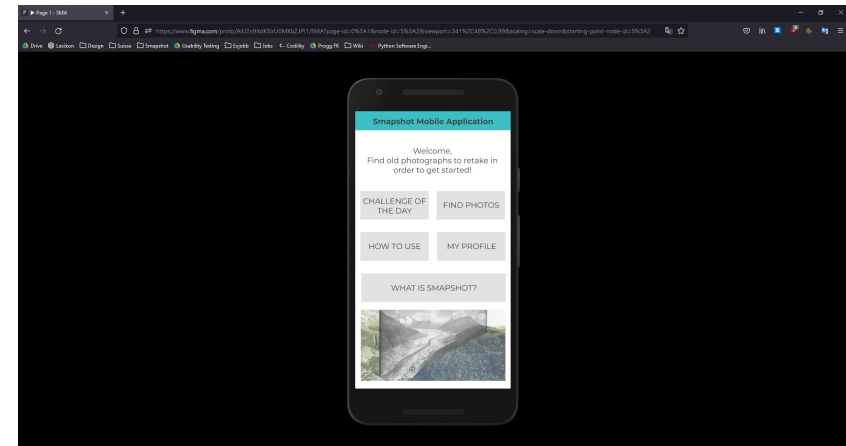
= Improve, user friendly mobile app



Usability Testing

- Test-users
- 20 minutes
- Web browser
- Zoom meeting

<https://forms.gle/NCdkzR6uUaSs4amLA>



Thank you for
listening

Questions?