

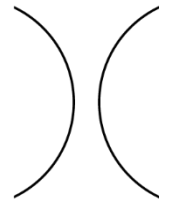
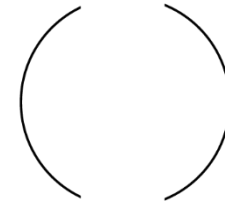
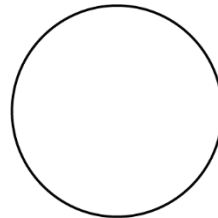
UX Evaluation of a Mobile Application Prototype for Art Museum Visitors

Presentation for ACHI 2020

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Presenters



Pekka Isomursu

Adjunct professor, Doctor of Technology (SW & Electrical Engineering), EMBA,
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Minna Virkkula

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Senior Lecturer and Project Manager at Oulu University of Applied Sciences,
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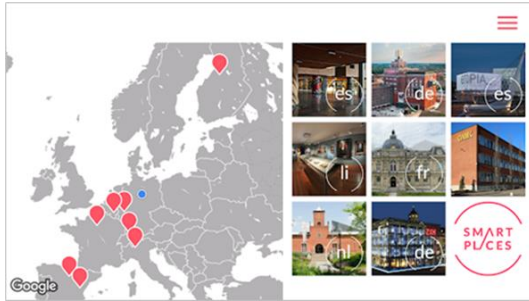
Co-founder of user experience design office Soul4Design

The research projects she works with, are focusing on service design, user
experience and usability.

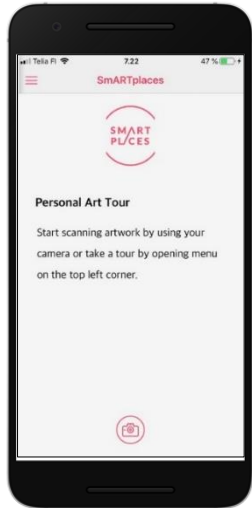
LinkedIn: www.linkedin.com/in/minna-virkkula-b5b24515/



Introduction: smARTapp and YPAT



Earlier, we have developed a mobile application called smARTapp where you can learn about participating institutions, art works and local projects through, e.g., exclusive videos, Augmented Reality (AR) features, and a game called Storyworld.



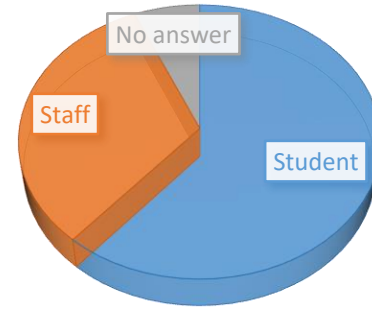
In this paper, we discuss user evaluation of a new application, to be integrated in smARTapp. We call it Your Personal Art Tour (YPAT). YPAT focuses on enhancing the experience of a visit to an exhibition. At the time of writing, YPAT was a lo-fi prototype on a mobile phone, including the basic functionality with a rudimentary user interface.



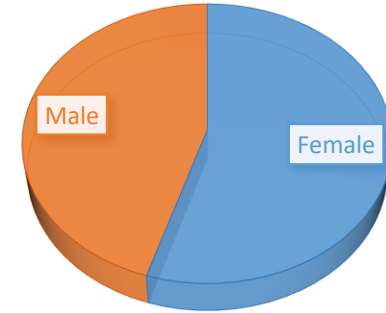
Test setup & methodology

- A prototype application in iPhone
- **31 users tested** (25-30 minutes each)
- Our own art exhibition at Gallery Å, Oulu University of Applied Sciences
- Testing methodology:
 - Modified/enhanced AttrakDiff
 - Observation and discussion
 - Questionnaire
- Their task was to walk freely at the gallery and test the app on their own, while they were observed.
- Some users were tested and interviewed in pairs which helped spark discussion. The questionnaire was filled individually.
- Afterwards, a questionnaire was filled.

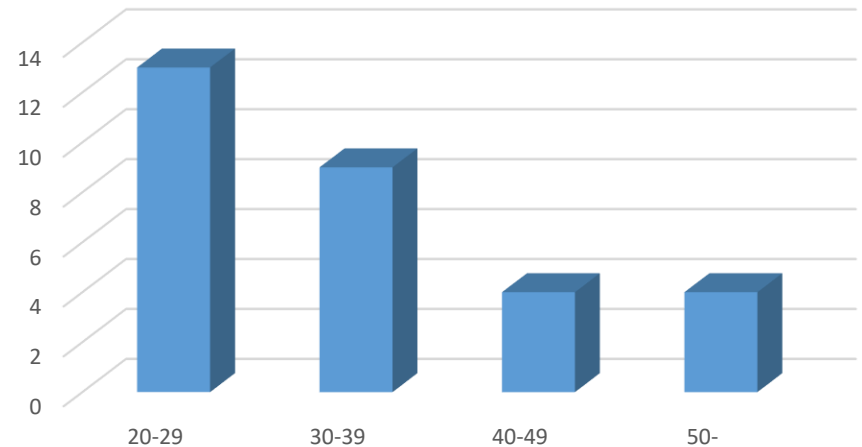
STUDENT/STAFF



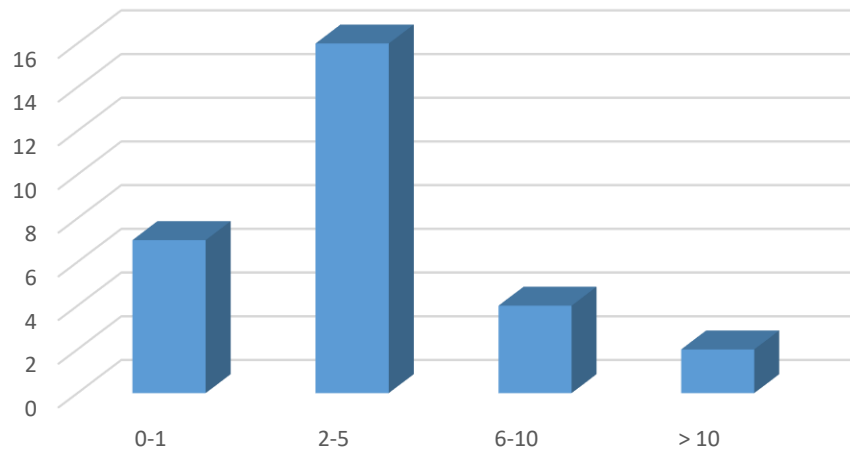
GENDER



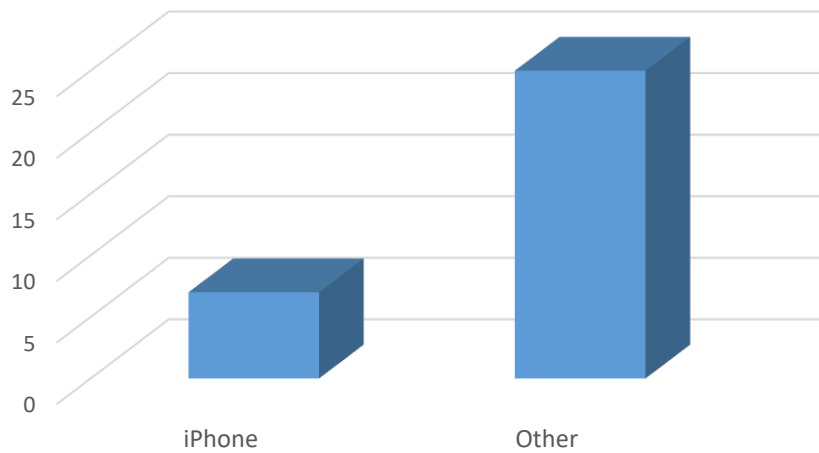
Age



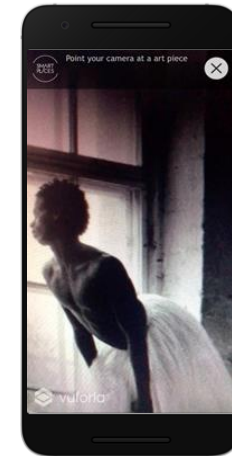
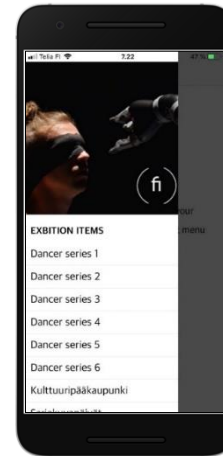
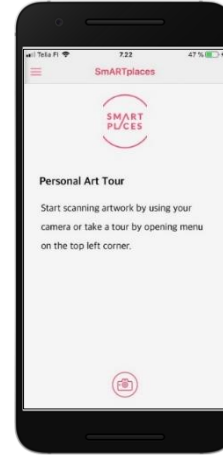
Museum visits / year

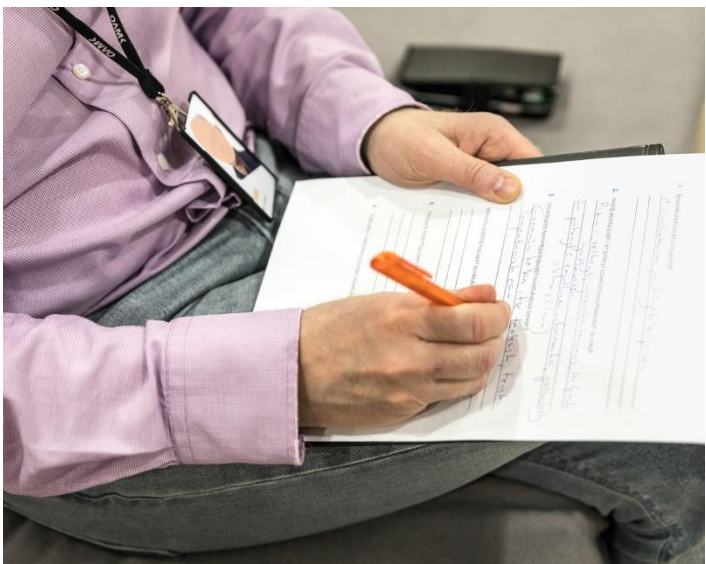


OWN PHONE



A Poster of Our Exhibition and Screenshots of YPAT





Participants were most certain of the answers marked dark. (How do you feel about using YPAT?)

human								technical
simple								complicated
practical								impractical
straightforward								cumbersome
predictable								unpredictable
clearly structured								confusing
manageable								unruly
innovative								ordinary
pleasant								unpleasant
attractive								ugly
inviting								rejecting
good								bad
appealing								repelling
motivating								discouraging
engaging								boring

After filling in the questionnaire, the participant was asked to select 3 attribute pairs that s/he felt most certain about and then justify the selection. This revealed a deeper layer of user insight that otherwise would have gone unnoticed.

Median and 90% range of the answers

human								technical
simple								complicated
practical								impractical
straightforward								cumbersome
predictable								unpredictable
clearly structured								confusing
manageable								unruly
innovative								ordinary
pleasant								unpleasant
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engaging								boring

Overall, feelings were positive about our prototype.

Note the pair “human – technical”: technical was not necessarily felt as being negative.

*”Simplicity and practicality are important,
because I want to be at the museum, not on my
smart phone”*

“It’s nice that you do not need to go close to
the artwork before it is recognized.”

”I liked links and related material, no need to
google”

“While at an exhibition, audio feedback would
be less distracting.”

*”I would plan my own tour”, ”I would search
the object from the (interactive) floor plan”*

“I’d love to share in social media” and just
directly with friends.”

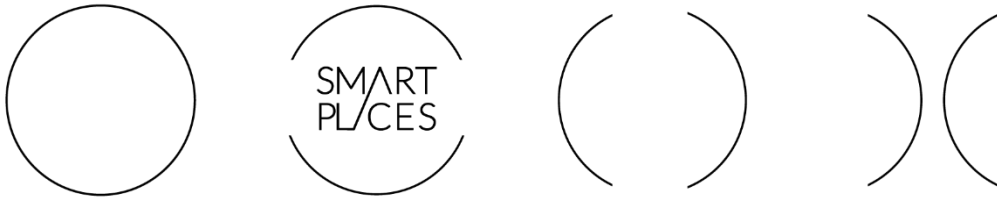
Design implications

- **Supporting role** of the application: at the exhibition, physical works of art are the focus of attention.
 - Works of art are at the center of the experience, users do not want to focus on their phone app.
 - Application gives freedom to choose the objects that user finds most interesting and study them at own pace.
- **Varying contexts of use:** user journey with the application can start at different points and with different goals.
 - **Before** exhibition: Planning your own tour
 - **During** exhibition: Using interactive map, audio guide including image recognition with camera, interesting content, user history and favorites
 - **After** exhibition: Learning more about stored information, and sharing with friends
- **Content is king:** the role of good content is crucial for the success of the application.
 - Many participants commented that the application is motivating and it is great to get more information about the artist and art piece, but the content must be inviting and interesting.
 - Another issue of high priority is to have interactive content (e.g., interactive map and elements)
- Considerations on **interaction and technology:** we found plenty of improvement ideas related to technology and interaction – such as too quick image recognition and avoiding user embarrassment.

Future Considerations

- A chatbot.
- To have **social aspects** included, e.g., recommendations based on other users with similar interest
- Recognition of **3D objects**.
- **Copyright** issues.

Thank you!



ACKNOWLEDGMENT

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