

Pics or it didn't happen

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Introduction

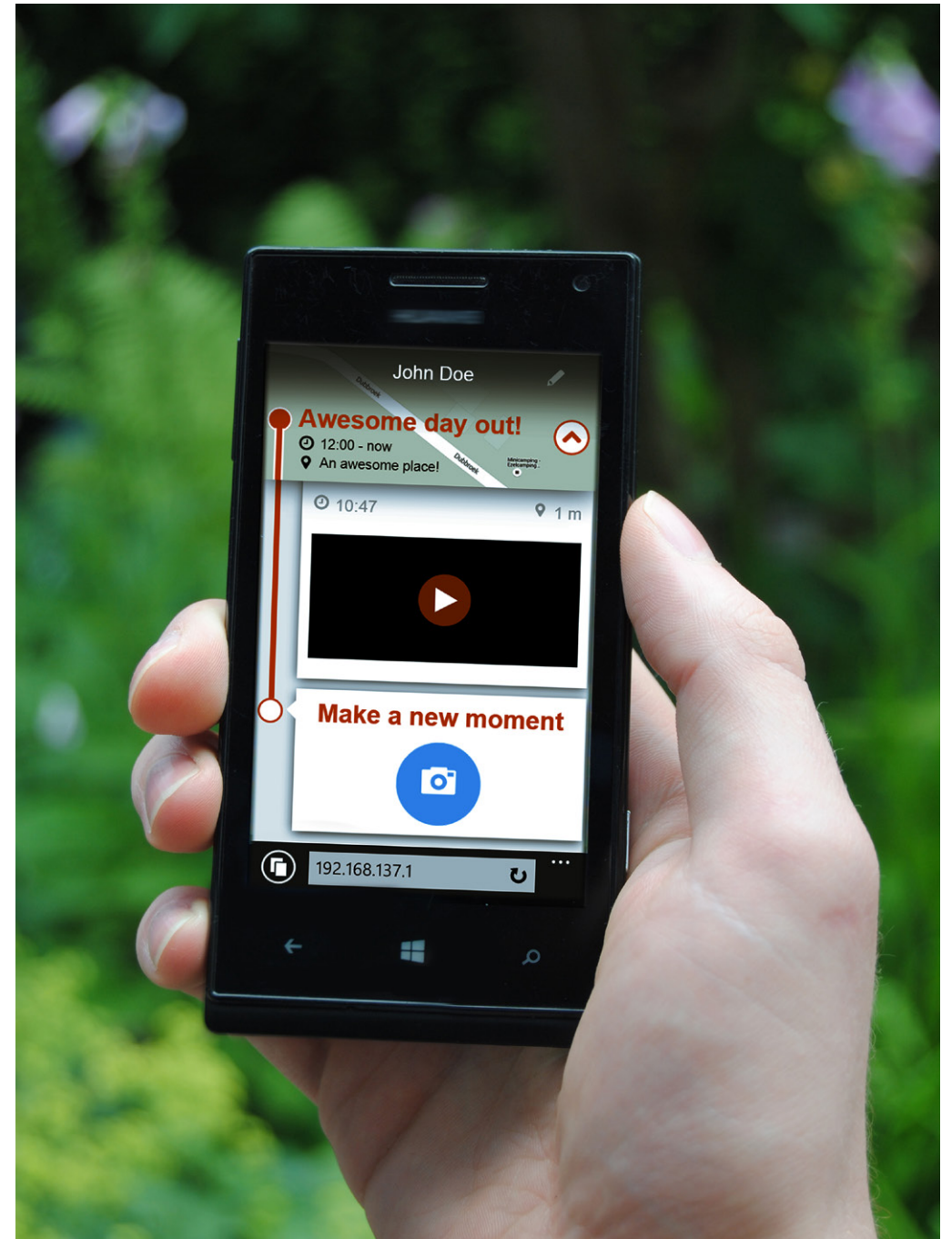
The project “Pics or it didn’t happen” is part of “Materializing Memories”, a project that runs on the university of Sydney, university of Dundee and the TU/e. It seeks to understand relation between media and remembering or forgetting. It also investigates remembering past experiences and it is intended to design media products to support remembering these experiences.

The focus within “Pics or it didn’t happen” lies on using media as a cue to reconstruct memories. The task is to design for interaction with these media, and come up with new ways of reconstructing memories.

For this project, the context was narrowed down to days out, which was part of the assignment. As “a day out” is still rather broad, it was suggested to find a specific context by narrowing “a day out” down to specific activities, with specific user groups. This was done throughout the design process.

This report describes the iterative process by looking at both the research steps and the design iterations of this M1.2 design project.

The end result is “cocap”: a smartphone app to capture memories in **multimedia**. Along with the app, an interactive overview enables reliving the captured memories, which is referred to as **“Memory Scape”**.



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🔍 Exploration

Procedure

A first iteration was to explore the possibilities on a day out. The kick-off of the project took place in the city center of Den Bosch; the activity of the kick-off was a city trip as a day out. This city trip was documented through specific memory-capturing strategies that were chosen beforehand. For this project, video panoramas were combined with manually recorded GPS locations on digital map application (HERE Maps, Windows Phone). This results in horizontally or vertically scrolling videos that can be linked to a GPS location on a map.

Method

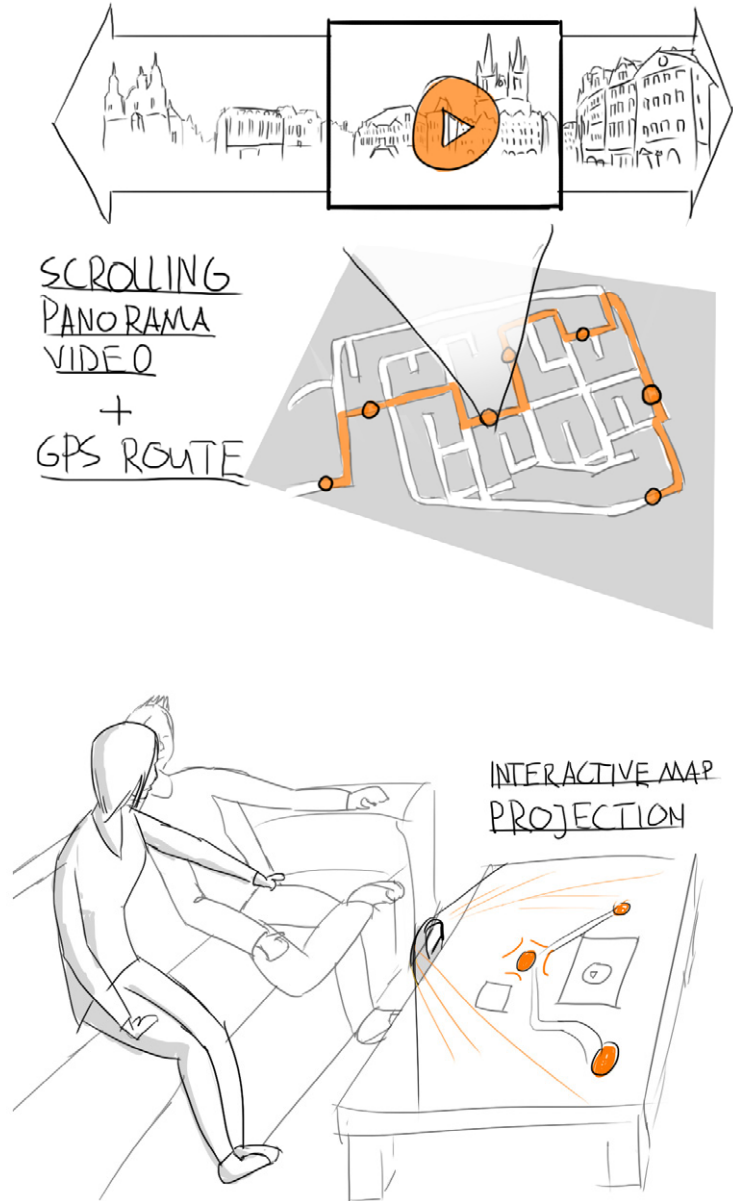
In a way, this was role playing a day out in context. It allowed for experiencing the context of the project first-hand. The **capturing strategy** was reflected on afterwards, to find out what the pros and cons were, and if there were any opportunities for improving it.

Analysis

This reflection resulted in some insights. First of all, capturing the GPS location manually is a demanding task. Whenever the GPS location was being recorded, it felt like lagging behind on the group. Second of all, the video panorama was great for capturing the broader context of a memory, but it loses specificity. To capture a detail, the video had to be “molded around” this detail. This shows that a single medium is not always suitable for capturing a memory. Each medium has its trade-offs and its limitations.

Based on this, the first design iteration was made, and the insights defined the project vision. This is described in the next section.





💡 Ideation & vision

Reliving concept, based on initial exploration

The first concept for reliving a day out was based on the strategy of capturing media from the initial exploration. It resulted in an interactive map that displays the route based on the recorded GPS location. On this route, the video panoramas will appear. Since it is an interactive map, the videos will pop up as thumbnails, which can be clicked to open the video and start playing it.

Project vision

Insights from the exploration inspired the project vision. Someone on a day out should complete freedom to capture memories, regardless of limitations of media. It should be as unobtrusive as possible for the given moment. Regardless of media type, all memories should fit in the format. Guldenpfennig writes about capturing rich media through media objects (Guldenpfennig et al, 2012). It is a collection of media files, which are linked in a **MOB** (media object) file. Capturing rich moments through MOBs has been an inspiration for the project vision.

Using strategies from the exploration

All the students from the project attended the kick-off exploration, and they all chose strategies for capturing memories. For the first-year teams, these strategies were fitted together. This was in line with the aforementioned project vision, so the captured memories of the teams were input for the first design iteration. The media from a team were combined into an interactive overview.

The team that joined the design exploration made photos, wrote down textual descriptions of a moment and tracked the GPS location. Based on these media, a mapping was made with the photos and textual descriptions onto a map. It was left open for exploration, as all the clusters of media could be opened. This was the first stage at which the term “Memory Scape” was coined, as it is a landscape of memories which can be explored while reliving memories of a day out.

Co-constructing stories

Procedure

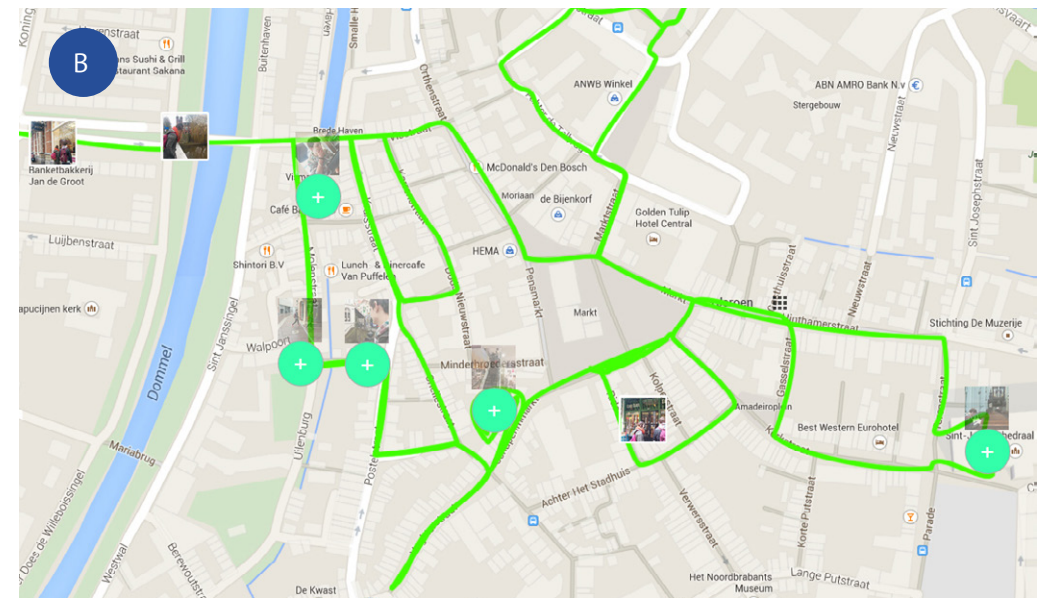
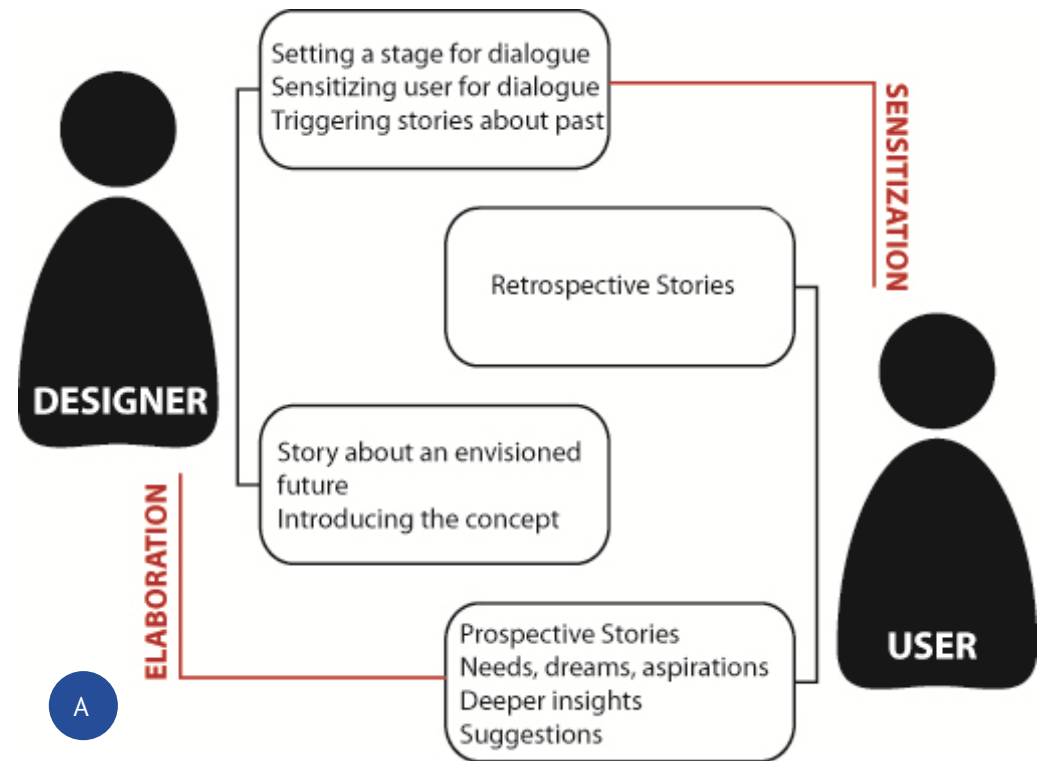
The exploration for the project served as inspirational input for the project. In addition the output from the exploration day out was used for a co-constructing stories session (Terken et al, 2012) with the first-year team. It is a session which evokes discussion with user groups. It starts with sensitization based on an existing context, after which, through storytelling, the user is introduced to the envisioned situation. As this group of four students already explored the context by going on a day out, they experienced the event in their own way. This made them a good user panel for this session. The session was recorded on video, so the story and the discussion could be analyzed afterwards.

The Memory Scope was used as a tool to tell the story. The group was asked to relive the day out, and trace back their day out as a means of sensitization. The co-constructing stories method proposes a confrontation with the envisioned story (typically a concept that hooks into the story of the participants). The envisioned concept was already part of the sensitization as a tool for reliving the day out.

Analysis

During the sensitization story, some remarks about the experience popped up which are relevant for the project. After the story has been told, they were asked about their experience with the Memory Scope. Another question was if it strengthened their memory of the day out. It resulted into a discussion on the completeness of the media that carried the memories, and on the effectiveness on the way of reliving. The discussion was analyzed qualitatively, as statements from the recorded discussion were categorized by means of an affinity diagram. This diagram can be found in the appendices^[A]. The affinity diagram yielded some themes, which are as follows.

Completeness of media describes the extent to which the capturing strategies of the exploration were regarded to cover a memory correctly.



A = diagram of the structure of co-constructing stories, by Terken et al, 2012.

B = The Memory Scope designed for the team that participated in the session.



Specific strategies from the exploration made it more difficult to capture memories properly or even capture memories at the right times at all. Sometimes, the media being used were not suitable for capturing a memory. For example, if audio is desired, a photo strategy was not effective.

Effectiveness of combining multiple media was part of the discussion of the possibilities of using different types of media, or combinations of media. For some of the captured memories, the participants did not experience it to the fullest with just the photos. Secondly, they wanted to see more, and suggested video recordings if they could capture their memories again. Audio was regarded a nice addition, though open for discussion, as video might suffice in the case of audio as well.

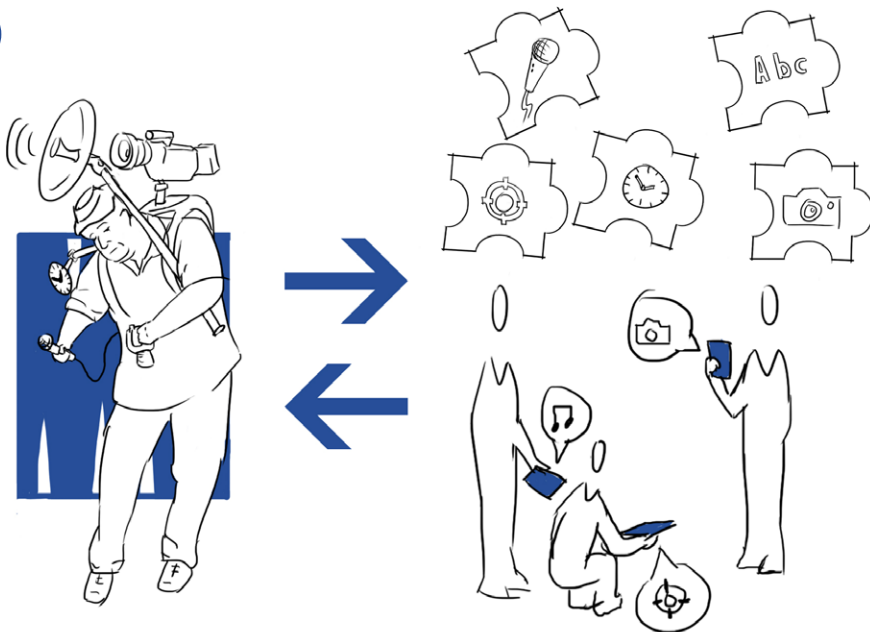
Location-based mapping was discussed as well, as it was the mapping used in the Memory Scape. One participant did not find the route projection necessary, though the others liked it, because they could trace their day out that way. The group agreed that it is nice to see the order of memories, and thus suggested a time slider, to show/hide memories and media based on the position of the slider, which represents the chronological time.

Effectiveness of reliving the day out was the last pattern recognized in the affinity diagram. By creating a memory overview mapped by location, it gave a better overview of the entire story, rather than single moments. This was regarded positive. The participants repeated several times that they liked this way of reliving the memories of the day out.

Implications

The results of the co-constructing stories session showed the power of combined media. The first idea was complete freedom of capturing moments, but it would require too much effort to record everything. A personal experience with days out served as inspiration to go for sharing the effort; working together on capturing the experience. The concept was extended with **“collaborative capturing”**. The implications for the next design iterations are described in the next section.

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A = To not occupy too much of the attention, the effort of capturing memories should be spread.

Experiential concept: capturing and reliving

Two parts: capturing and reliving

The first design iteration mainly focused on the reliving part of digital memories. But it is connected to “collaborative capturing”. This opens the opportunity to design for capturing digital memories collaboratively. The co-constructing stories session took place in front of a big screen, which proved to be very suitable for reliving the memories together. The Memory Scape should be accessible online, so it can be accessed on a multitude of devices, on any screen.

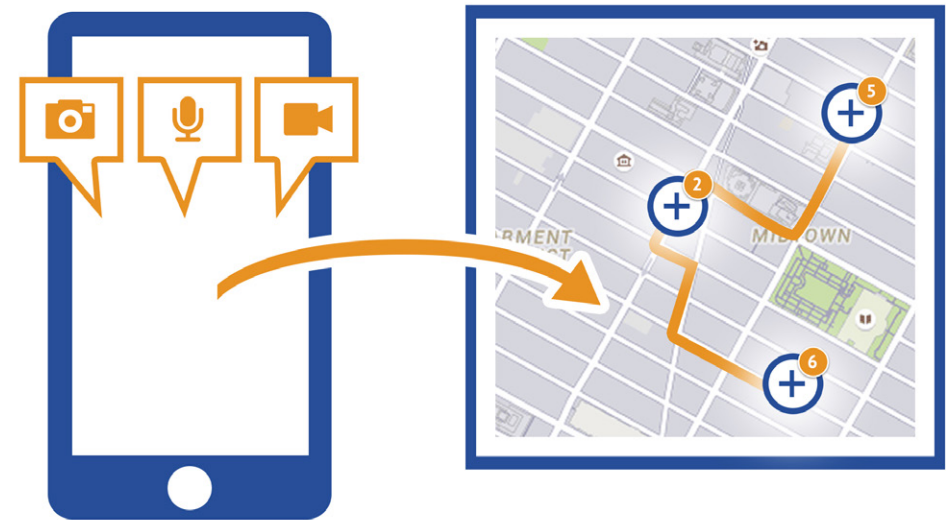
The concept comprises two service touch points; capturing of memories in photos, videos, and audio fragments as well as reliving these memories.

Choice of capturing device

Having extended capturing freedom means that the user should have a device which is capable of capturing within a wider range of modalities (photo, video, audio). Additionally, it should be able to capture metadata as well (location data, time data, and potentially more). Currently, smartphones are capable of doing just that, and everyone has such a device. These media collections have been earlier described as MOBs (Guldenpfennig, et al 2012). **XML** is proposed as a markup language for storing the links, but for fast implementation in the prototype, **JSON** is used instead. JSON is literal object notation, which makes it easier to store and read; XML has to be parsed beforehand.

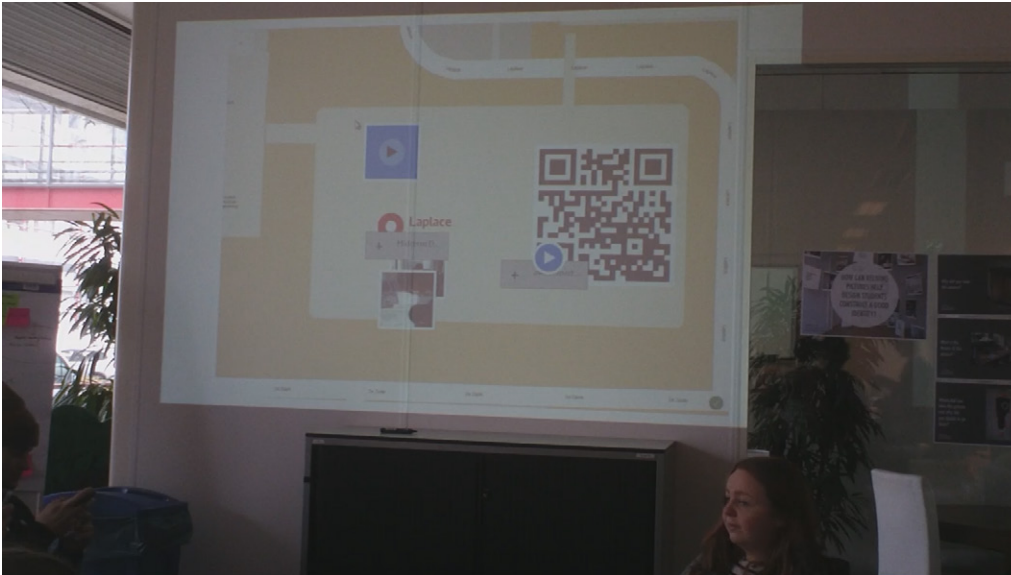
Opportunity for feedback

The midterm demo day was used as a demonstration of collaborative capturing. An interactive demo enabled the audience to capture collaboratively. After capturing, the photos, videos and audio fragments directly appeared on the screen: the interactive overview. This way, both ends of the concept were demonstrated, to tell the audience about the concept of collaborative capturing and reliving.



A

A = Two service points: both capturing memories and reliving them in rich media collections



Demonstration feedback: a panel discussion

Procedure

The midterm demo days were used as a demonstration to evoke discussion and elicit feedback from the audience. As described in the second design iteration, an experiential prototype was made, which served as a way to get the audience familiar with the concept. The demo day session was aimed at giving midterm feedback on the concept and the process, so the session could be best described as a discussion with a panel of designers, both students and coaches.

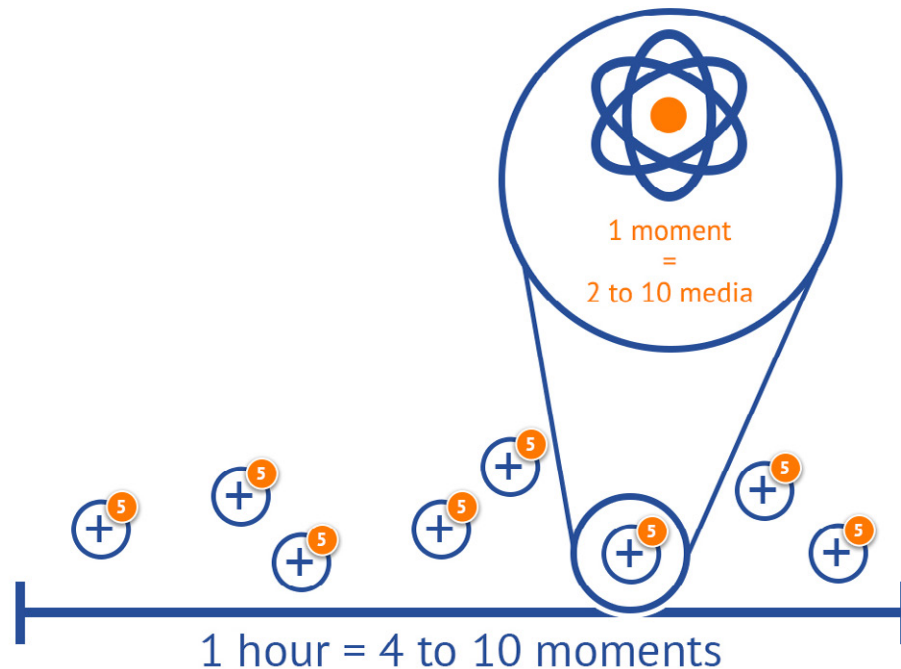
Feedback

The concept was received positively. As the demonstration was a functioning prototype, it sparked the imagination and it allowed the designer panel to imagine the context of use. It elicited specific feedback, rather than questions on a conceptual level.

- The first question was about the risk of everyone capturing everyone while capturing, rather than actually capturing the moment itself.
- The second question was about how to curate the media from a capturing process. The amount of media will be bigger; this should be organized in some way.
- Another piece of feedback is that the concept has a lot of levels. It was advised to determine the boundaries. There should be an impression of how many moments are captured on a day out, and how many media these moments contain.

Analysis

First of all, the boundaries and levels of the concept were considered. An approximation of this, is that a day out could contain 4 to 10 moments per hour, and a moment can contain about 2 to 10 media.

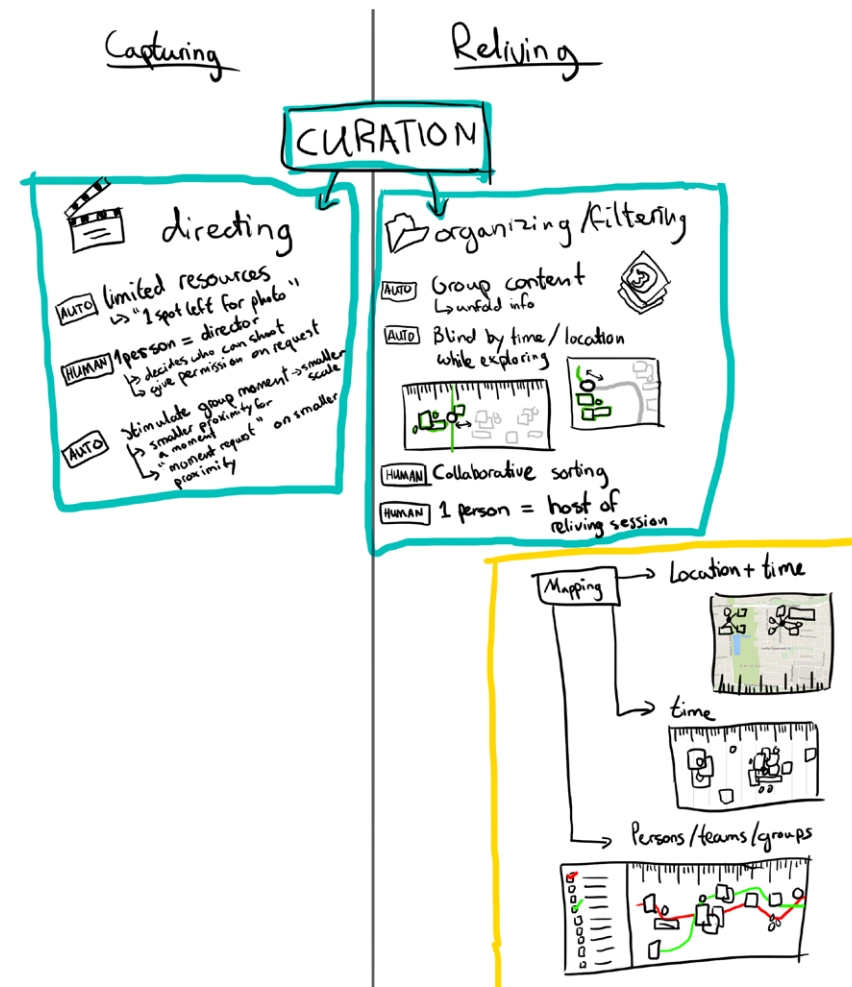


The curation can be handled in many ways. Both while capturing and after the day out. From the start, curation through the course of the day out was considered more interesting, as it removes the effort browsing through and categorizing all the media. The process of capturing is also the strength of the concept. Curation can be handled by people themselves, which might require a “director” for deciding who will capture what. However, this way of organizing will require all the attention of a person, which is rather obtrusive. Automatic curation is considered the best option. This should be done by mapping media based on location and time; a day out stretches over a period of time, and possibly a range of locations. The media can be mapped on proximity in time and location, so that moments will pop up based on this data.

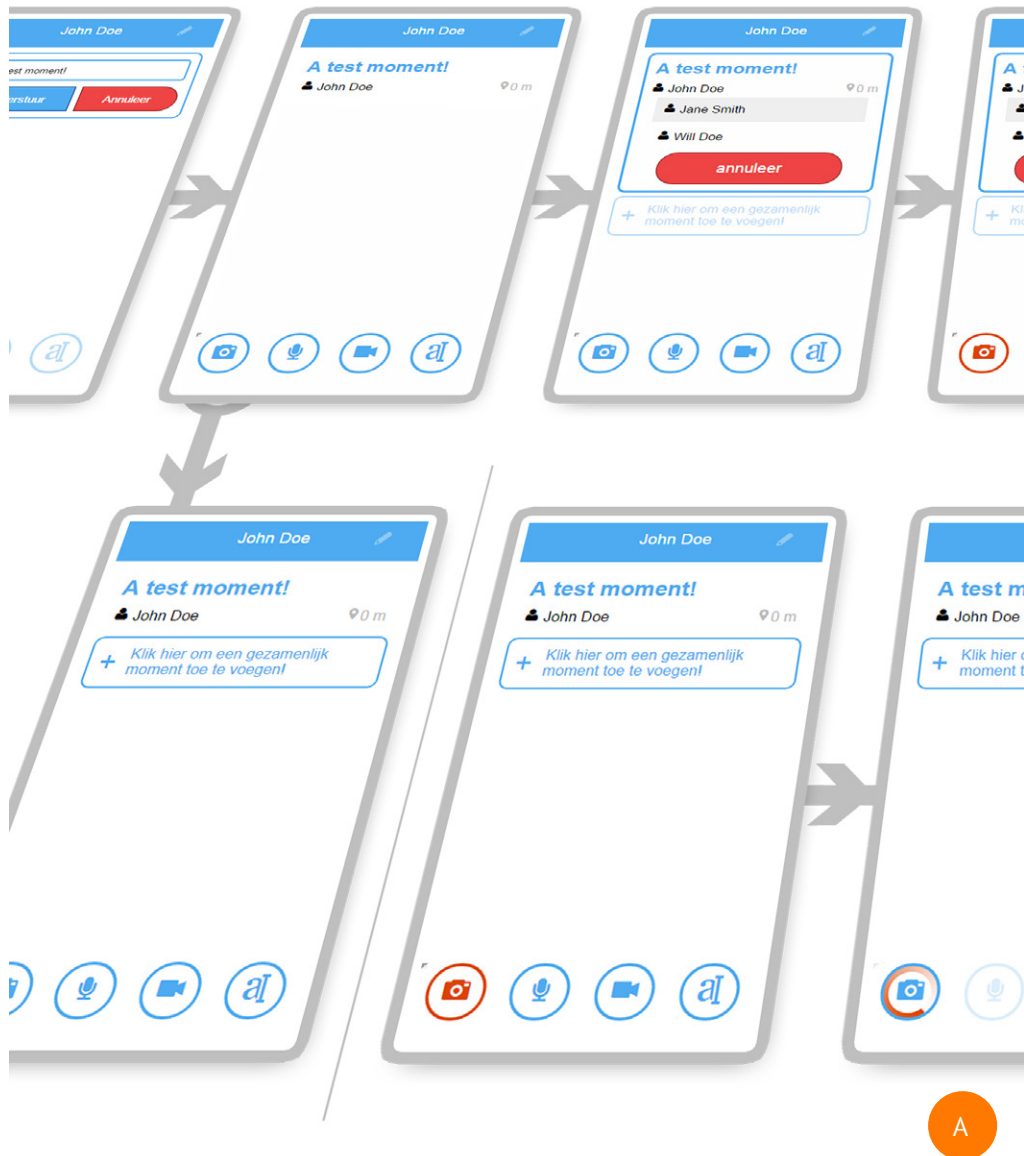
This way of mapping introduces a solution to capturers capturing each other while capturing; it can be solved by making a moment stretch over a longer period of time. This enables the participants of a single moment to avoid it from happening.

Implications

This way of mapping can give a better overview on the media, which is the purpose of curation. But it does not control the rate at which people create media, neither does it stimulate collaboration. Thinking of how to trigger collaboration, an invite system was considered. Invites for joining a moment can be broadcasted to every group member and can be labeled with a name. This invite triggers a notification on all the devices of group members, and by accepting, you add media to the moment you accepted the invite for. The name label clarifies the subject of the moment.



✂ Designing first app version



A

A = an excerpt of the wire frame of the first iteration. The full wire frame can be found in the appendices ^[8]

The invite system

As described previously, curation was considered through adding an invite system, so every group member can add their media to collaboratively captured moments with other group members. To directly steer the app users towards capturing together in moments, a list with moment invites should be prominent on screen. An invite can be sent by means of a big “add”-button. An invite should expire in 5 minutes, and only after 5 minutes a new invite can be sent. This way, a moment is an actual moment in time, instead of stretching over the entire day out. Next to that, delaying the possibility to send a new invite prevents overflow of moments.

All the media types are directly available, as it provides complete freedom of capturing moments of a day out in the way a user would like to do. The types comprise photo, video, audio fragments and text fragments.

Simulation in the prototype

Through **websocket technology**, web browsers can communicate in real-time with a server. The app is hosted on a server as a mobile website. The websocket connection is created by a Node.js application that is hosted on the same server. This technology is used to facilitate the invite system, and handle the media uploads that are part of the moments. Because there is no standardized API for notifications for web browsers yet, a sound embedded in the app was played back whenever a new invite is sent.

The mobile website is hosted on a local Node.js server, and can be accessed on localhost; in order to be used on a smartphone, an **ad hoc network** is established. This way, the local server can be accessed by IP address with the connected smartphones. It is a portable setup, as it can run on a laptop. It can be tested with any smartphone that is connected with the network. As long as the battery of the laptop lasts, the web app works and all smartphones are connected through the invite system.

First user test:

In-the-field observation

Procedure

A couple of recreational activity companies were contacted. The first one to respond was a campsite which organizes hikes through nature with mules. A family group of 8 people was asked for a test with the prototype from the previous design iteration. 6 people captured memories with the app. The hike was followed along, so it allowed for in-the-field observation while using the prototype app. With this observation, some points were paid attention to:

- Are there any bottlenecks, or breakdowns in the experience?
- Which aspects work well?

These questions were placed in columns on a notebook, along with an empty column for other observations. These columns served for annotating observations throughout the hike. The notes can be found in the appendices [\[C\]](#).

The prototype crashed during the test. Instead of using the app, the participants were free to capture the day out in any way: photos, videos or audio fragments.

A functioning MemoryScape was sent to the participants as reward for participation, along with a questionnaire with open questions. The results of the questionnaire were analyzed in an affinity diagram. This diagram and the questionnaire can be found in the appendices [\[D\]](#), [\[E\]](#), the results are shortly explained in the analysis.

Analysis

Observation revealed that the participants had trouble understanding how to capture together in moments with the invite system.

From the moment the prototype crashed, different observations were made. The participants had more freedom, and capturing memories became more casual,





yet individual. Another question could be asked: how collaborative are people with existing tools? For more significant moments on a day out, the collaboration happened more intuitively; something of interest was captured by multiple people. More eager photographers captured more memories and vice versa, but on overall, there was less collaboration, compared to earlier observations.

Based on a count of media in the memory scape, photographs were by far the most popular media, followed by videos. Text fragments and audio fragments were hardly made.

In the questionnaire, the participants mentioned that the invite system was hard to understand. Capturing without this system was considered not blocking the experience of the day out at all. Concerning the Memory Scape, they liked it. They thought it gave a better overview on the media, although it was a bit crowded.

As the participants received a Memory Scape, it could be explored to what extent they like to share it. Some variations were designed to investigate this “shareability”. The Memory Scape was still considered shareable when it contained an advert for the company that organized the hike. They would even share it when a logo appeared on the preview image of the Memory Scape on Facebook. However, they would like to be able to hide and show the advert when reliving memories.

Implications

As the collaboration only happened intuitively, this was the main group dynamic concerning capturing memories. In some way, a cue should be given to stimulate working together. Notifications are suitable, but it requires an update to the invite system as well. It should require less steps. The emphasis should lie on capturing, rather than on organizing; as opposed to the prototype of the test.

The natural hang to photos and videos seemed to be caused by a lack of visual cues. The app shows 4 buttons (photo, video, audio, text), which might make it easier to choose different media than when having to open a different app every time you capture a different media. So the 4 buttons were considered to lower the threshold of capturing different media already.

🔧 Second app version

From invites to labels

The invite system introduced too many steps into the process of capturing memories. In addition, the capturing of media was the last step in the process. This adds a threshold to actually create moments. Instead of introducing a threshold, the user should be persuaded into collaborating. Notifications for “trending moments” on a day out are cues for when the user does not actively use the app. These cues can be triggers to open the app and contribute to a moment.

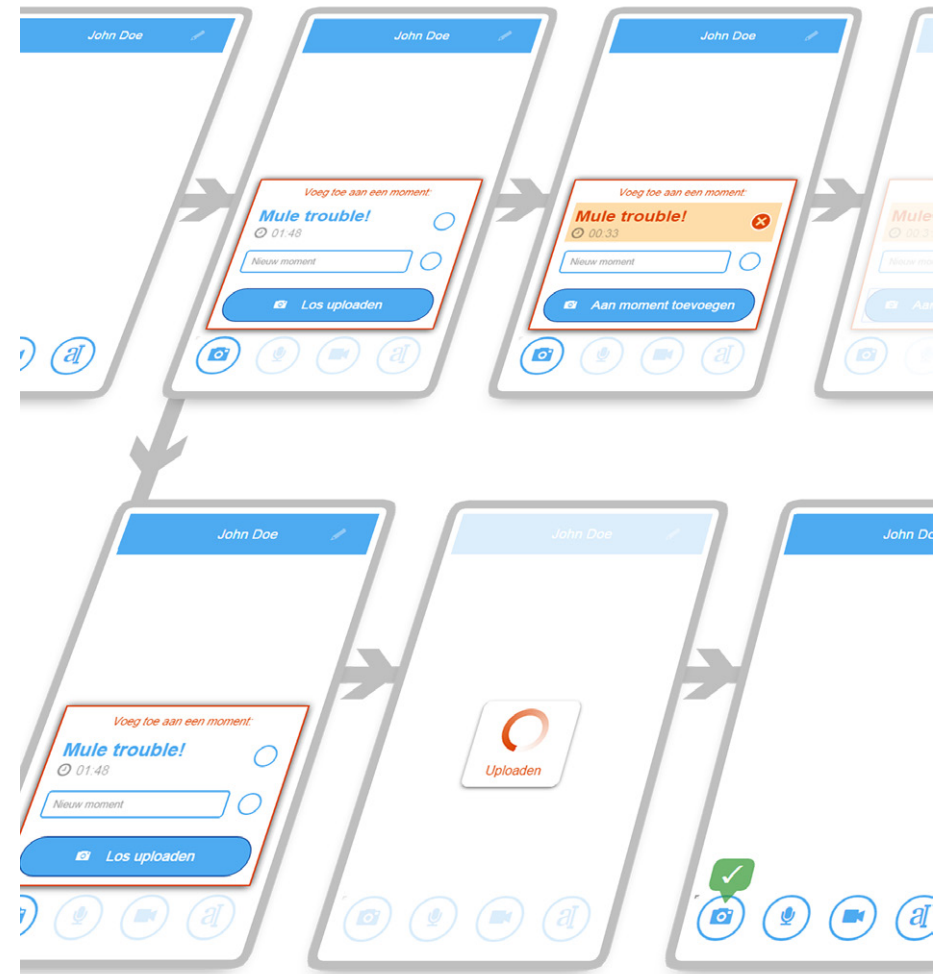
Introducing persuasion in the invite system

If the current capturing process is inverted, and implemented as an optional labeling step instead, it lowers the threshold. Putting it behind the media capturing itself, can even improve compliance to capturing collaborative moments. It makes use of the tendency for consistency; if someone starts an action, he/she will be more likely to complete it. This is described in the book “Influence” by Robert B. Cialdini (1984, chapter 3), as he discusses that an initial commitment makes it more likely that users will stick to this commitment and fulfill the task.

To prevent the users from continuously making individual moments instead of working together, the system will be limited to 4 visible slots that can contain invites. These invites expire in 5 minutes, and show a visual countdown. An expired invite is replaced with a new slot. This also hooks into the principles of influence. The principle of scarcity (Cialdini, 1984, chapter 7) relates to favorability of something if it is available for a limited amount of time. As an invite expires, it adds a new cue to wanting to be part of it.

App design

The app was designed with only the 4 media buttons visible. After capturing media, a dialog appears for labeling the captured media. 4 slots are available for adding labels, and these fill up as everyone labels their media. As explained, the labels expire in 5 minutes, which clears the specific slot again.



A

A = an excerpt of the wire frame of the second iteration. The full wire frame can be found in the appendices ^[F]



Second user test: In-the-field observation

Procedure

The second user test was organized around a mule hike from the same company as the first user test, yet with a different group of participants. This time, the group consisted of 6 people, from which 3 used their smartphones to capture memories in media. This time, the ad hoc network to broadcast the app failed.

The group was observed while using the app by paying attention to 4 aspects: group dynamics, types of collaboration, extend of obtrusiveness and equality in experience within group. Since the prototype did not work, the participants were asked to divide roles for capturing memories. 3 participants were asked to record media: one participant took photos, another took videos, and another recorded audio fragments.

While following along with the hike, the participants were observed while taking into account the 4 aforementioned aspects. A notebook was divided into five rows: each row containing notes for individual aspects. These notes can be found in the appendices ^[6].

As a reward, a Memory Scope was made based on the captured media. A questionnaire was sent, asking open questions about the experience. Some questions were added about the specific medium in which the participants had to capture memories. An affinity diagram was used to analyze the answers. The questionnaire and the affinity diagram can be found in the appendices ^{[7][8]}.

Analysis

As the test involved dividing the roles with different types of media, the questionnaire yielded answers more related to group dynamics and experience of capturing with a specific medium than the previous test. They already did a mule hike before, so they thought it was easier for them to adapt to the capturing

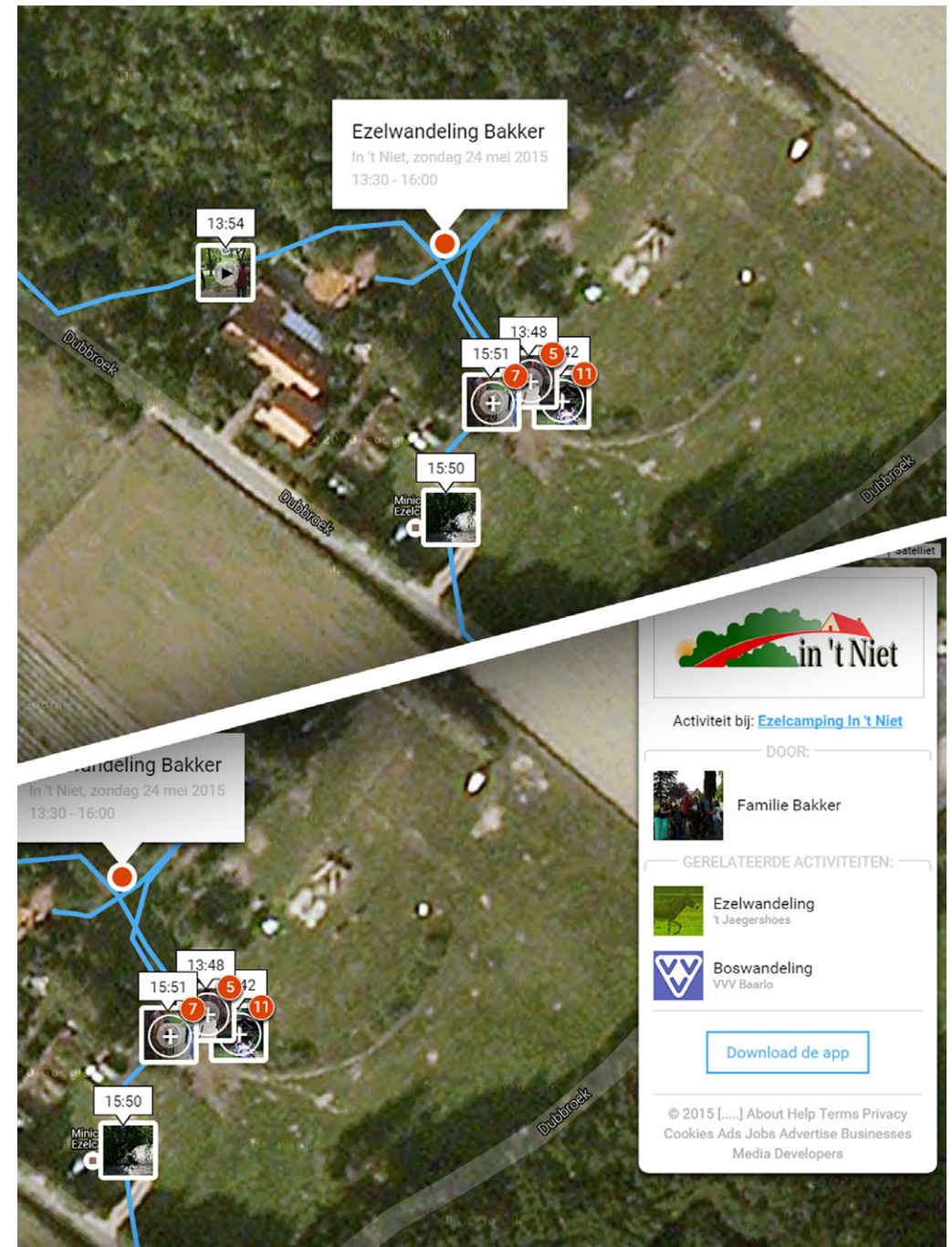
strategies. A recurring answer was that, in a group of that size, they were able to divide roles. Some doubted if it would be suitable for a smaller group. This confirmed the context that has been designed for: large groups on a day out.

The audio capturing was regarded difficult, the video and photo capturing was regarded easy. The variety of media was experienced as enjoyable for reliving the day out. The mapping of the media contributed to that as well, as it was regarded fun to trace back the route and view the moments on it.

Just like the previous iteration, the “shareability” was tested. All the respondents answered positively when it comes to sharing their album online. But there were some side notes. One participant did not want to share some of the silly moments in the day out. The “commercial chrome” was not regarded negative; it would even add extra value. They liked how it provided extra information to the people they wanted to share the Memory Scape with. Just like last iteration, there were some remarks about showing/hiding the “commercial chrome”, as it was useful, but in the way of reliving at some point

Implications

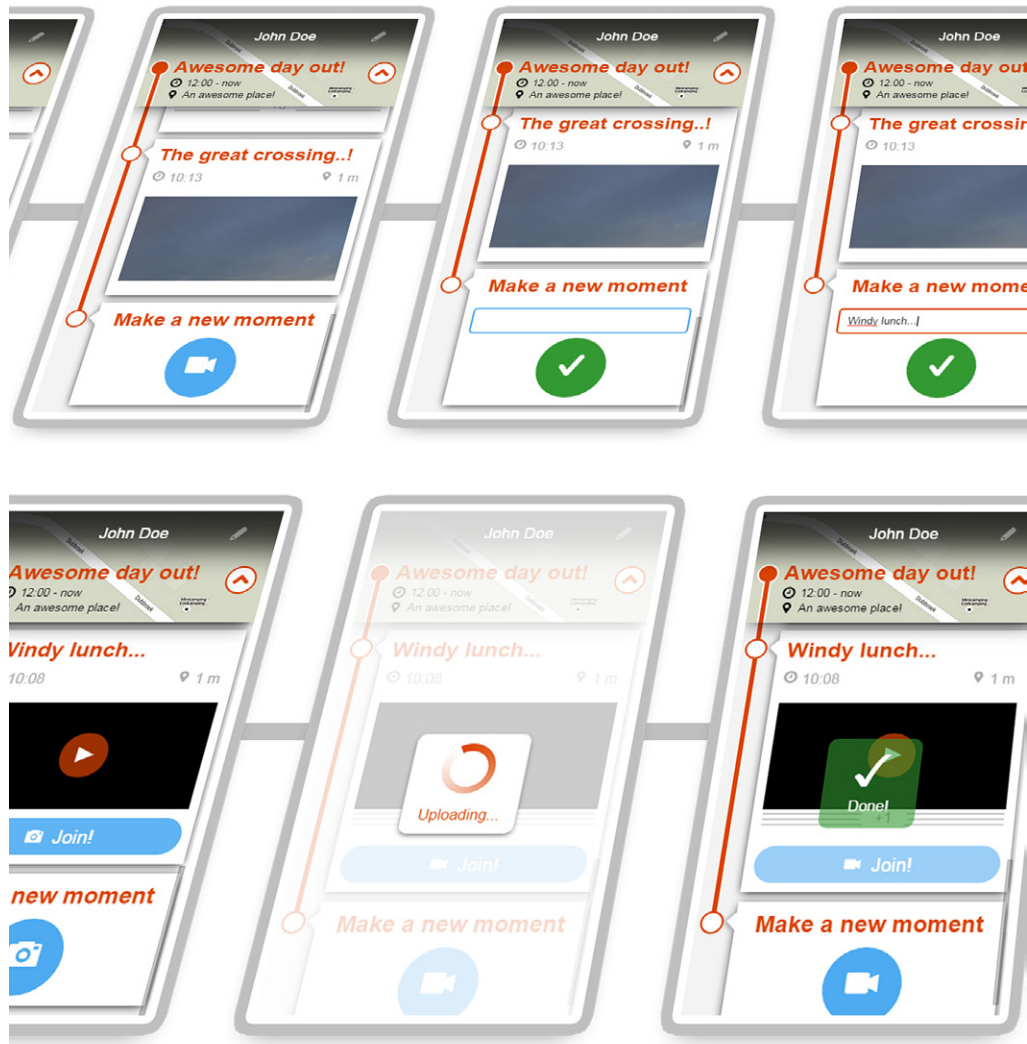
One medium is not always suitable for capturing the memory. That was why capturing memories with a specific medium is not always easy. Instead of being fixed to a certain medium for the entire day out, it is better to take turns with different media. The group indicated that the roles were easily divided because of the size of the group. This confirms the context to design for: groups with at least 8 people on a day out. This is more generalized than “families on a day out”. But families are still included in the context of the design: mostly, those are large groups as well. It is not intended for large groups with small children. This role-dividing would not be feasible, as the day out itself demands too much attention with small children. As a recommendation, the “commercial chrome” should appear at the start of the Memory Scape, but it should be possible to show/hide it. This would make reliving the day out more convenient. In addition, it might be good to set privacy levels within the Memory Scape. Some “silly moments” are worth remembering, but only within the group, whereas others are worth sharing.



A = The Memory Scape that was given to the user test group.

B = The Memory Scape with “Commercial Chrome”; ads and app promotion.

Building final app version



A

A = an excerpt of the wire frame of the final iteration. The full wire frame can be found in the appendices ^[1]



The concept

copac is a smartphone app which allows its users to capture moments collaboratively inside a group on a day out. The app lets users take turns on capturing moments with specific media. All these media and data on time/location/moment labels is stored on a server. This server generates the Memory Scape based on this data. The Memory Scape is generated after the day out, but a timeline is generated inside the app while capturing. The mapping of this timeline should be investigated further. The Memory Scape has mapping on location and the app has mapping on time. But both should have mappings on time and location. Users should be able to toggle between a timeline and a map.

The app

The app displays a timeline of past moments on a day out. Participants can tap “join” to add to a specific moment. They can also create a new moment at the bottom of the timeline. Just like in the last test, the roles of capturing media are divided. But the members take turns in capturing each of the media types throughout day out. A collaborative moment expires in 5 minutes, which expresses in fading “join” buttons. Other metaphors were considered, like shifting the button color from blue to grey. A recommendation is to look further into notifications, and how “trending moments” can trigger users to join in on moments.

The Memory Scape

The Memory Scape should group the media based how the users added these to moment labels. This is mapped on an overview through time data or GPS data; the user should be able to choose between both mappings when reliving. It would show the media on a map or a timeline, respectively. Privacy should be considered within the Memory Scape when shared online. The user should be able to define what he/she wants to share. This involves the entire group, so this should be collaboratively agreed upon. It can be done in the Memory Scape, but also in the app (adding an extra toggle for “private moment” while capturing).—

i References

Florian Güldenpfennig, Wolfgang Reitberger and Geraldine Fitzpatrick: **“Capturing Rich Media through Media Objects on Smartphones”** in “OZCHI’12” conference (2012)

D.O. Buskermolen, J.M.B. Terken: **“Co-constructing stories: a participatory design technique to elicit in-depth user feedback and suggestions about design concepts”**, in “PDC’12” conference (2012)

R.B. Cialdini: **“Influence: The Psychology of Persuasion”**, HarperCollins Publishers Inc, 2007



Glossary

Multimedia

Generally referred to as to combination of various media. In this context, it is referring to a combination of photos, videos and audio fragments.

Memory Scape

An interactive overview which combines media into groups, based on moment labels that have been defined and added to throughout the capturing of the day out. A Memory Scape maps these groups of media based on location or time, which translates into a projection on a map, or a projection on a timeline.

Capturing strategy

A strategy for capturing memories in specific media. A combination of media can be used as well. Examples are: GPS and video, time and textual notes, a continuous timelapse with a GoPro, etcetera.

MOB

Multimedia Objects. These are files that link to media files that belong together. Guldenpfennig et al (2012) proposes an XML markup to store the links to media files.

Collaborative capturing

The act of working together to capture a memory in multimedia.

XML

Extensible Markup Language. It is a markup language that defines a set of rules for encoding documents in a format which is both human-readable and machine-readable (Wikipedia, 2015). It organizes data in a tree of elements which allows nesting elements in elements. Once parsed, it is traversable in many programming languages.

JSON

Javascript Object Notation. It is an open standard format that uses human-readable text to transmit data objects consisting of attribute–value pairs. It is used primarily to transmit data between a server and web application, as an alternative to XML (Wikipedia, 2015). JSON is a literal notation for objects in Javascript, and requires simple parsing in many programming languages to be translated into Objects with data as variables.

Websocket technology

The Websocket protocol is a protocol to support real-time communication between web-browsers, servers, apps and other web-enabled appliances. A connection is made once, and is kept open until to connection is terminated or lost.

Ad hoc network

A local network set up by a single computer. This computer is the host of the network, and it can grant other devices like computers and smartphones access to it's network. In the example of the prototype; it can grant access to a local server; which can be accessed by the IP address of the host computer. The app was running on the local server, so smartphones could access it by connecting to the ad hoc network.



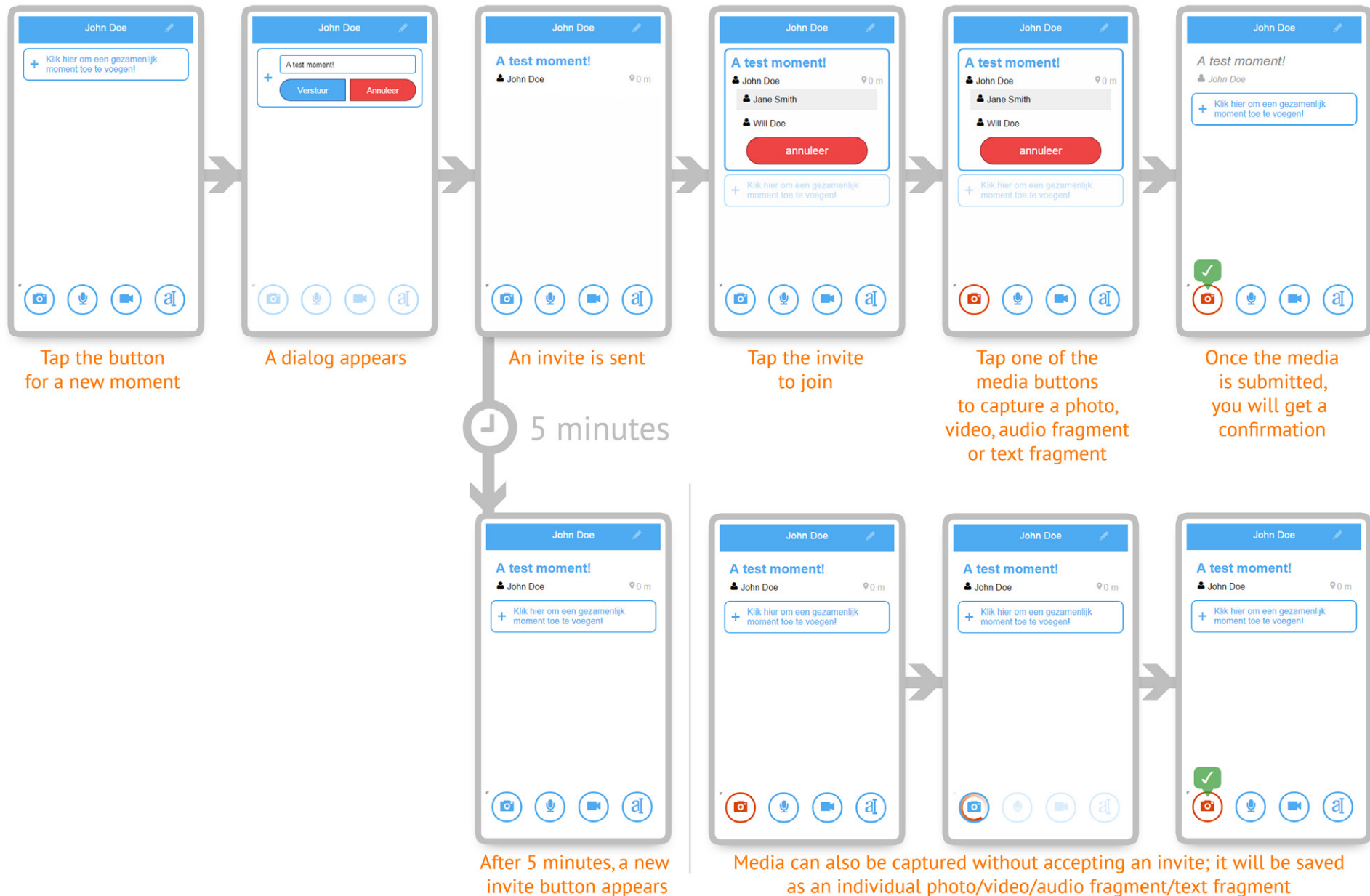
Appendices

[A] Affinity Diagram co-constructing story session

<p style="text-align: center;">Completeness of media</p> <ul style="list-style-type: none"> ● “With this specific strategy, it is a shame I did not always manage to capture the moment properly” ● “We miss the ‘normal’ pictures, the objective stills” ● “Such a shame you don’t see that on the picture!” 	<p style="text-align: center;">Effectiveness of combining multiple media</p> <ul style="list-style-type: none"> ● “With GPS, text and photo, it has more impact than with a photo alone” ● “I’d like some videos as well; you could see more on those” ● “I think audio can be a meaningful addition as well”
<p style="text-align: center;">Location-based mapping</p> <ul style="list-style-type: none"> ● “I don’t think a projected route is valuable” ● “I like how you can see the order of happenings this way” ● “Yeah. A time slider is also interesting. That would clarify the chronological order even more!” 	<p style="text-align: center;">Effectiveness of reliving</p> <ul style="list-style-type: none"> ● The story: <ul style="list-style-type: none"> ○ “I like how we have to figure out the order, you start telling stories automatically” ○ “I like it very much how we can look back on our day out this way” ○ “It’s cool how we can distinct all the moments very clearly in those bubbles” ● The overview of media: <ul style="list-style-type: none"> ○ “This way of reliving does help me with reminiscing” ○ “With this overview, you get the entire story of the day out”



[B] Wire frame of the first iteration of the capturing app



[C] Notes from observing at the first user test

Bottlenecks / breakdowns in experience	Which aspects work well?	Other observations
<ul style="list-style-type: none">● The concept of moments is still rather complicated for the participants to understand.● Joining and leaving a moment is really confusing.● After the hike, all the media that was not collected with the app (after the crash) had to be retrieved, so all the phones had to be synced with a laptop. This was time-consuming.● Related to the above point: it was hard to keep the group centered around the laptop for collecting the media.	<ul style="list-style-type: none">● Uploading files with the media buttons is understood well.● The participants worked together to capture moments; the concept was understood well.● <i>(after the app crashed)</i> Even without app the participants worked together to capture moments, but more intuitively.	<ul style="list-style-type: none">● The group has done mule hikes before; so they didn't have to focus on both learning to hike with a mule and adapting the collaborative capturing concept.● The most keen photographer is the person who captures the most moments. And the opposite is true as well.● On overall, everyone takes more photos, but this effect gradually wears off through the course of the hike.

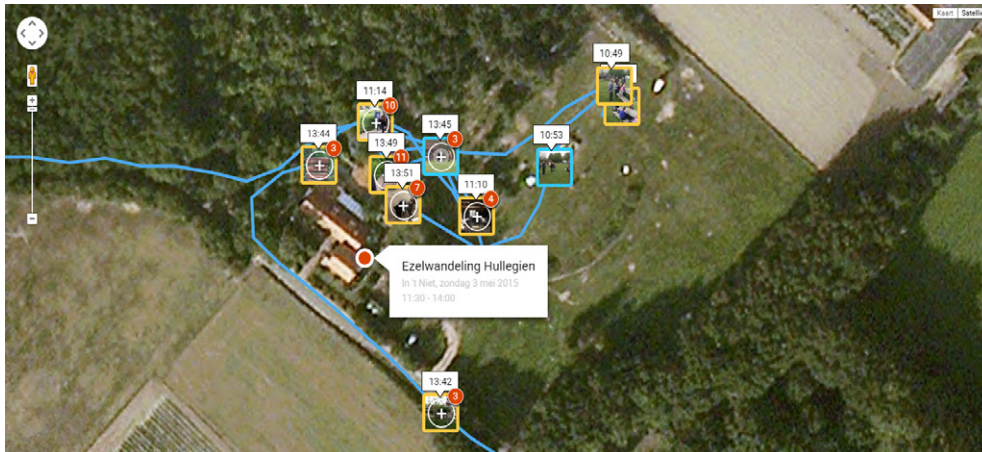


[D] The first online questionnaire

* = required question

1. **Do you think you were able to experience the hike well enough? ***
Consider if there was something “blocking” your experience throughout the day
 - Yes
 - No
2. **Explain why: ***
(open question)
3. **Describe the moment you liked best about the hike: ***
(open question)
4. **Explain why: ***
(open question)
5. **Describe the moment you didn't like about the hike: ***
(open question)
6. **Explain why: ***
(open question)

The next questions are about the photo/video album you received from this hike:



7. **What do you think about this album? ***
(open question)

8. **Are there any additional remarks about the album?**
(open question)
9. **If it was possible to share this album with acquaintances on Facebook, or by email, would you share it? ***
 - Yes
 - No
10. **Explain why: ***
(open question)

The next questions (11 to 14) are applicable to the participants that answered “yes” to question 9



A



B

11. **Imagine you can share the album on Facebook. Which one would you rather like to share? ***
 - A
 - B
 - I don't really prefer one or another
12. **Explain your choice: ***
(open question)





13. Imagine the album looked like the above image. Would you still like to share it? *

- Yes
- No

14. Explain why: *

Think of specific aspects that you find good or bad about this album

(open question)

After this section, the participants had to fill in personal information:

Name

Gender

Age

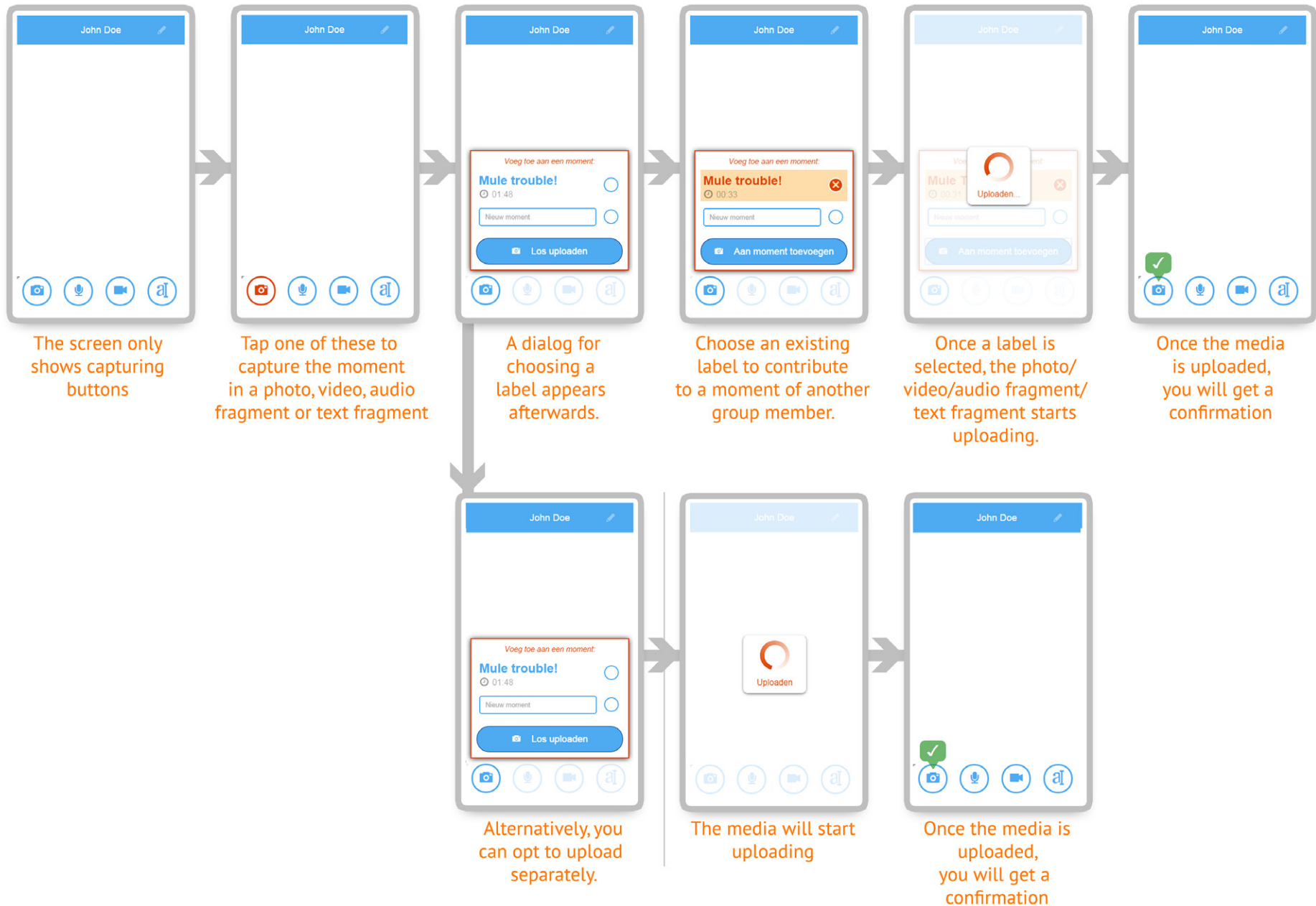


[E] Affinity diagram of the questionnaire responses from the first test

<p>Capturing experience</p> <ul style="list-style-type: none"> ● Through the course of the hike, it all went more naturally. ● I did it like I would always do it. ● Nothing hard was imposed on us. 	<p>Experience of capturing in moments:</p> <ul style="list-style-type: none"> ● At the start, looking for moments to capture was hard. ● I didn't understand it at first 	<p>Opinion about Memory Scape</p> <ul style="list-style-type: none"> ● It's fun to share this with others ● The album looks cheerful ● The album is a nice overview
<p>Crowdedness of media</p> <ul style="list-style-type: none"> ● Maybe you can make it easier to jump through photos, especially the clusters of media. ● Everything is closely together, so sometimes it is a bit of a clutter. 	<p>Overview of moments</p> <ul style="list-style-type: none"> ● You get an overview directly. ● The navigation works well in the album. ● It would be nice if you could see this album grow during the day out. 	<p>Stance on "commercial chrome"</p> <ul style="list-style-type: none"> ● Positive: <ul style="list-style-type: none"> ○ It feels more professional ○ Acquaintances are provided with more information ○ This feels better for sharing. ● Negative: <ul style="list-style-type: none"> ○ These ads should only show at the start of the album. ○ It would be more convenient if you can hide/show it throughout the album.
<p>Sharing: concerning both the album and the Facebook link (3 divisions)</p>		
<p>Representativeness</p> <ul style="list-style-type: none"> ● It displays well what we did. ● It shows what we did and where we did it nicely. 	<p>Novelty / interesting</p> <ul style="list-style-type: none"> ● Yes. It is new and interesting. ● Yes. It invites others to do the same activity. 	<p>Privacy</p> <ul style="list-style-type: none"> ● Yes. But I would only share it with close acquaintances.



[F] Wire frame of the second iteration of the capturing app



[G] Notes from observing at the second user test

Group dynamics (roles of people and media)

- Audio recordings do not only focus on sounds, but also on quotes from other members. It sparked requests to repeat a quote. In that sense, it has a more retrospective role. But it also stimulated capturing the ambience.
- Video recordings focused on capturing live action, so whenever there was movement (or expected movement), a video was made. It always happened within the action. The member who captured videos sometimes “cheated” by taking photos as well.
- Photos were made as they were normally made. Both capturing action and still moments. Along with video, this medium was captured the most.

Collaboration in capturing moments

- Mostly spontaneous: everyone captures an interesting moment.
- Sometimes, a participant made a request (for example, “could you pose to make a photo?”, “please say that again”).
- Moments were shared throughout the hike as well. The photographer shared the most: he showed the photos to the others.

Obtrusiveness / unobtrusiveness in experience

- Capturing moments remained casual and did not look forced at all. Whenever the occasion appeared, the participants captured media

Equality of experience for all group members

- The casual experience did not force anyone into being the “continuous photographer”.



[H] The second online questionnaire

* = required question

1. **Do you think you were able to experience the hike well enough? ***

Consider if there was something “blocking” your experience throughout the day

- Yes
- No

2. **Explain why: ***

(open question)

3. **Describe the moment you liked best about the hike: ***

(open question)

4. **Explain why: ***

(open question)

5. **Describe the moment you didn't like about the hike: ***

(open question)

6. **Explain why: ***

(open question)

7. **How did you capture the hike? ***

- Making photos
- Making videos
- Recording audio
- I did not capture the hike in any way

The next questions (8 to 10) are applicable to the participants that answered question 7 “Making photos”, “Making videos” or “Recording audio”.

8. **How did you experience the way of capturing memories? ***

	(++) Totally agree	(+) Agree a little	(-) Not really	(--) Not at all
Easy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Valuable for the album	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy to find back in the album	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

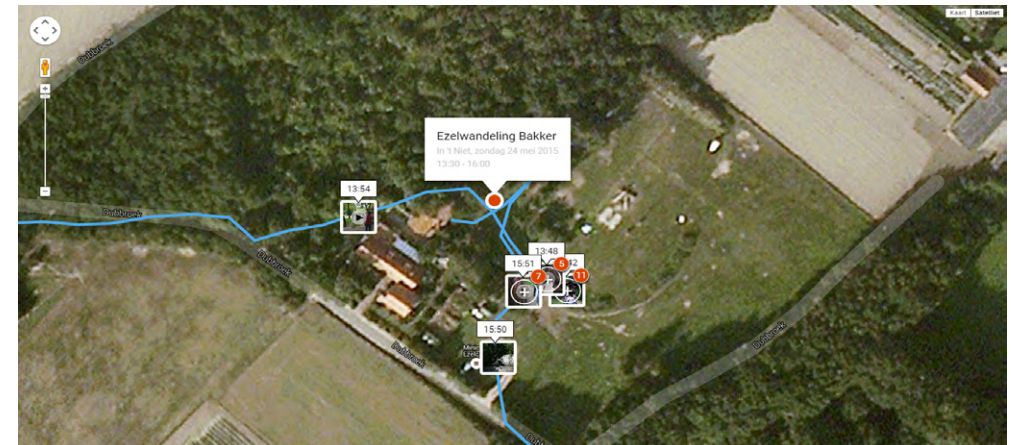
9. **What do you think of your way of capturing, compared to the others? ***

(open question)

10. **Do you have any additional remarks about capturing the hike? ***

(open question)

The next questions are about the photo/video album you received from this hike:



11. **What do you think about this album? ***

(open question)

12. **Are there any additional remarks about the album? ***

(open question)

13. **If it was possible to share this album with acquaintances on Facebook, or by email, would you share it? ***

- Yes
- No



14. Explain why: *

(open question)

The next questions (15 to 18) are applicable to the participants that answered “yes” to question 9



A



B

* Dit is slechts een simulatie; het is niet echt gedeeld op Facebook

15. Imagine you can share the album on Facebook. Which one would you rather like to share? *

- A
- B
- I don't really prefer one or another

16. Explain your choice: *

(open question)



17. Imagine the album looked like the above image. Would you still like to share it? *

- Yes
- No

18. Explain why: *

Think of specific aspects that you find good or bad about this album

(open question)

After this section, the participants had to fill in personal information:

Name
Gender
Age

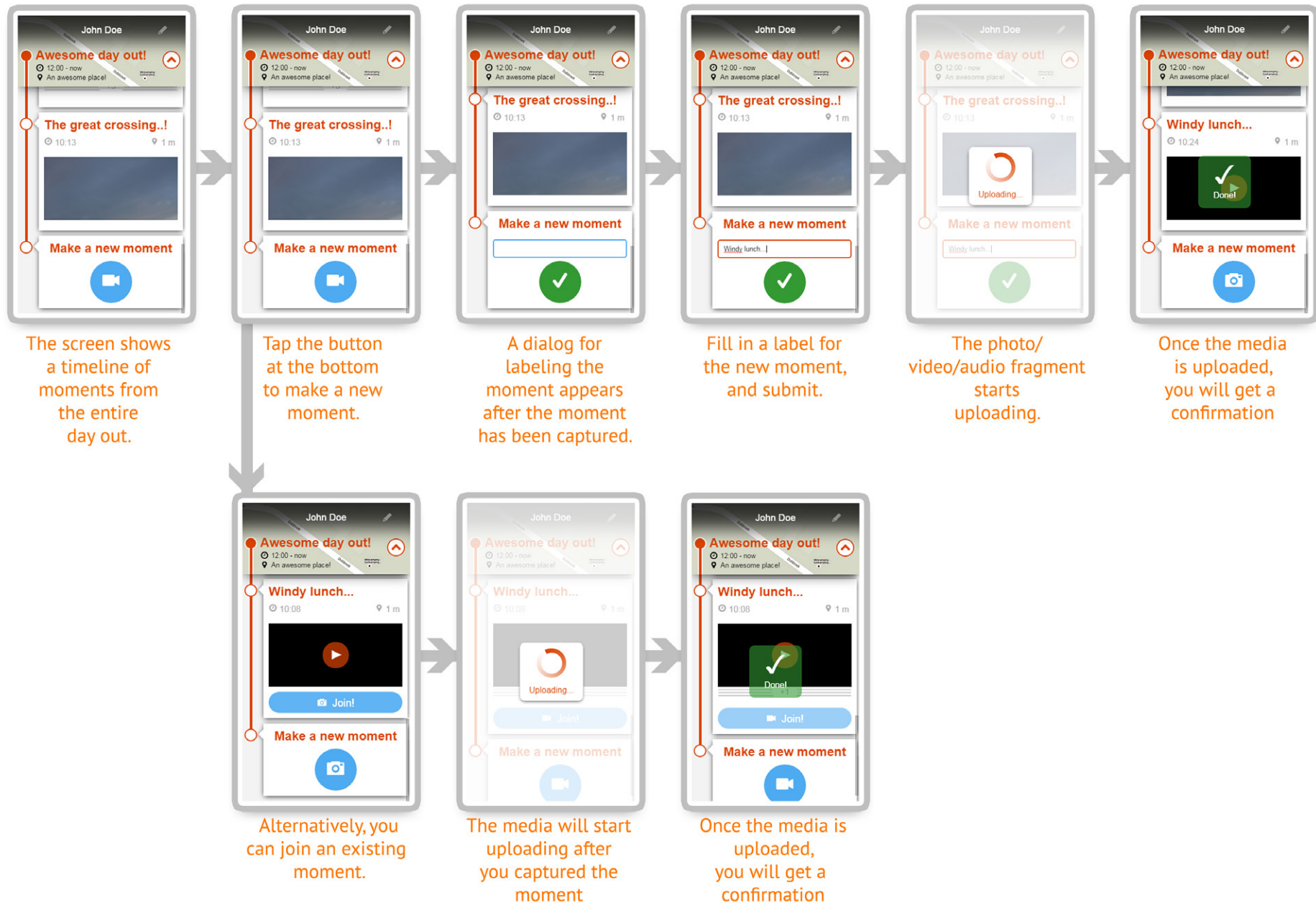


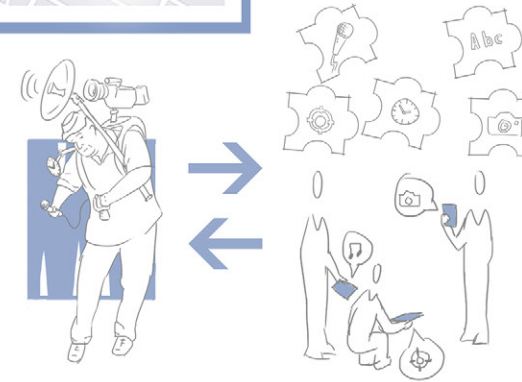
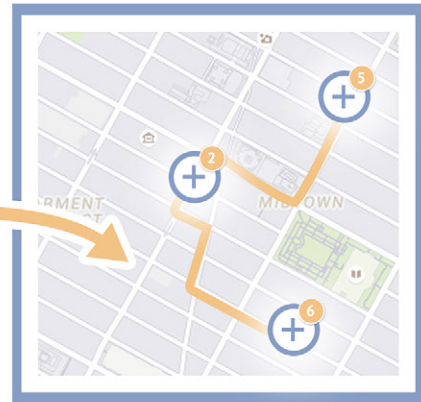
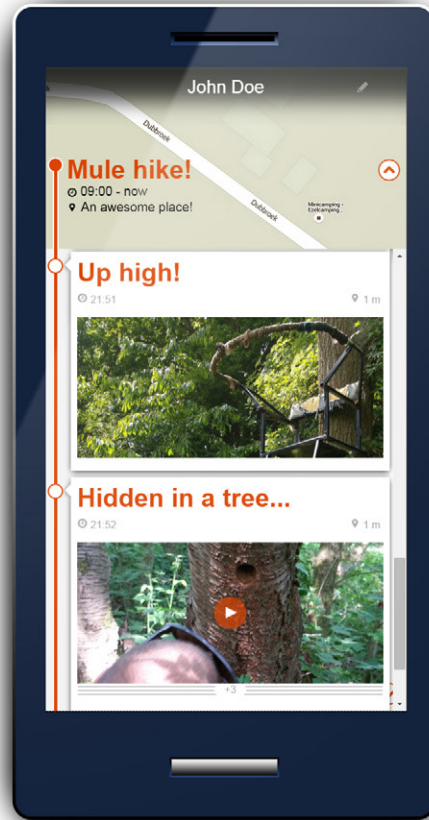
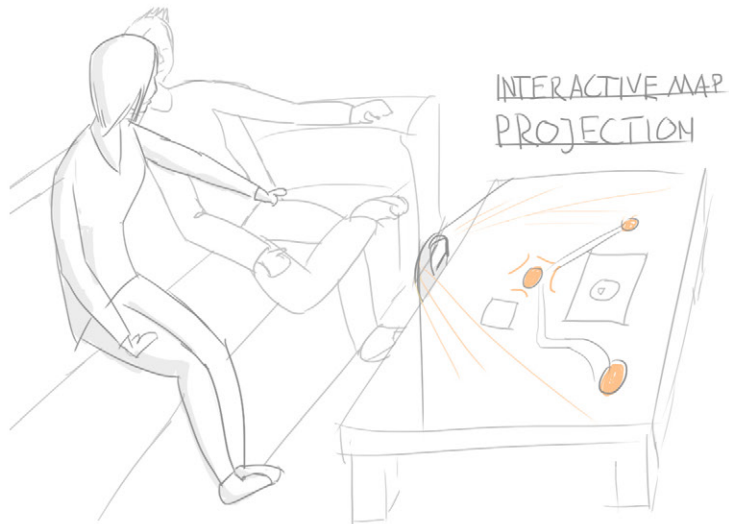
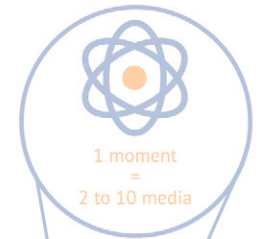
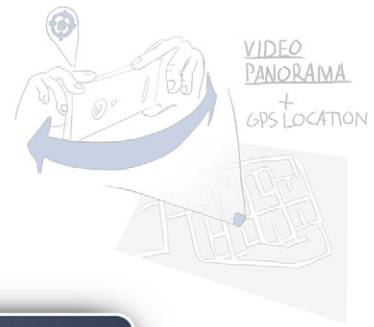
[I] Affinity diagram of the questionnaire responses from the first test

<p style="text-align: center;">Overview while reliving</p> <ul style="list-style-type: none"> ● It's nice to trace back the route this way ● It is fun and give a good overview 	<p style="text-align: center;">Experience of reliving</p> <ul style="list-style-type: none"> ● It is great to look back at the moving images ● It's a nice and unique way of capturing the hike ● Quotes like "it's fun", "it's great", "it's something special" 	
<p style="text-align: center;">Experience of capturing</p> <ul style="list-style-type: none"> ● I think photos were easier to make than any other media ● Capturing sound is pretty hard sometimes! 	<p style="text-align: center;">Thoughts on group dynamics</p> <ul style="list-style-type: none"> ● We did this hike before. That makes it easier to adapt to this way of capturing. ● We had enough people to take turns in guiding the mule and using the navigation. There was still room for capturing. ● If you are alone, or with children, I think it is harder to use. ● We were within a big group, so the capturing roles were easy to divide. ● If you have a small child, it might be hard to focus on the capturing! 	
<p>Sharing: concerning both the album and the Facebook link (3 divisions)</p>		
<p>Would you like to share the current Memory Scape?</p> <ul style="list-style-type: none"> ● Yes, it's fun ● Yes, it is a fun way to share the day out, and enthuse others. ● Yes, it gives a good overview, and it is great for family that did not join us. ● Yes, it's a great display for what we did on this day out. 	<p>Would you share the one with "commercial chrome"?</p> <ul style="list-style-type: none"> ● Yes, it has got more of an identity this way. ● Yes, it's equally fun, but the ads can be annoying in the long run. ● Yes, there's not so much different between this one and the one got. ● Yes, this gives everyone more details. So others know where to go to when they want to do this as well. ● Yes, it clarifies the day out some more. 	<p style="text-align: center;">Some concerns:</p> <ul style="list-style-type: none"> ● Well, I won't share this specific one, there are some silly moments that I would like to be private. ● How the facebook link was designed is not too beautiful. I would prefer the one without the logo because of this.



[J] Wire frame of the final iteration of the capturing app





Pics or it didn't happen

Student:
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M1.2

Coach:
Ine Mols

Clients:
Ine Mols
Mendel Broekhuijsen