

UNIVERSITY OF TWENTE



13 Seconds Why

Human Centered Design

Eva Maria Veitmaa (s2132397)

Iza Grasselli (s2168987)

Annkatrin Jung (s2176440)

Laura Ham (s2202719)

Chloé Mélanie Claire Dalger (s2213273)

Instructor: dr. Deger Ozkaramanli

Enschede
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1. Introduction

The aim of this project is to redesign an existing application which enables meaningful social encounters to address a specific human need identified with methods from human centered design, especially dilemma-driven design. The project is done in close collaboration with users to understand their goals, needs and use contexts so as to develop appropriate innovative solutions.

The design process consists of the following steps:

- Selecting an application to redesign;
- Assessing the chosen application from usability and user experience viewpoints;
- Interviewing and observing current users' interactions with the chosen application to identify their emotions and underlying concerns, and discerning users' dilemmas;
- Generating new design ideas and elaborating on possible use scenarios;
- Creating a design prototype and evaluating it with the targeted users.

The app chosen for this project is Tinder - one of the most popular dating apps among the current youth (La Roche, 2018). Tinder lets people "like"/"dislike" other people based on their profiles, and allows them to chat if both persons have "liked" each other (i.e. if a "match" has occurred). The user interface and swiping interaction has had a large influence on culture. Often, people use the term "swipe left/right" to indicate their like or dislike of everyday objects, situations, or people not only in smartphone applications, but also in real-life situations. It has changed the way many (young) people approach dating in general - the so-called "Tinder effect".

However, Tinder is often seen as a superficial hook-up platform in which users are mainly focused on assessing the physical features of others. This negative reputation urged us to choose Tinder as the application to base our work on.

We identify our target group as female users in their 20s because we feel that by analysing people similar to us we might find out something about ourselves as well. Furthermore, limiting our target group to a subset of Tinder users will allow us to conduct more effective user research to address the specific needs of this group. Differentiating between genders is not only a very obvious division between users of the application, but it is also really interesting to address the user needs of different gender groups in an application with dating purposes, since gender plays a big role in the dating process. All in all, we decided for the purpose of this research to focus on female Tinder users only.

The aim of the project is to design for digital intimacy to enable forming and maintaining meaningful social connections via the use of smartphone applications. Taking into account the occasional negative reputation of Tinder, we defined meaningful connections as connections that are not only based on physical attraction and looks, but also on a "deeper", more emotional level, such as common interests or viewpoints.

2. Context Research

To further understand the application we selected, we analysed its mobile version from usability and user experience perspective using the 12 heuristic design principles and framework of 4 pleasures (Benyon, Turner, & Turner, 2005) (See [Appendix 1](#)). Overall, we assessed Tinder to be easy and playful to use. However, some of the icons do not convey the meaning properly and in the free version, the user has less control (no option to return to previous profiles) and more interruptions (ads).

Regarding the user experience, Tinder's colourful design is cheerful and the swipe-based interactions make it feel like a game. It is easy to go through a lot of profiles quickly without delving deeper into them. However, knowing that others may not have read your profile description or looked at the pictures lowers the value of matching with someone. Frustration can also be caused by being forced to make a choice, since there is no option to skip a profile.

	Positive aspects	Negative aspects
Physio-pleasure	Easy and effective interaction through swiping	Interaction not very intuitive and thus encourages mistakes
Socio-pleasure	Social interactions with others, feeling of belonging to the "Tinder community"	Negative feelings caused by rejection, frustration from not finding matches/dates
Psycho-pleasure	Very easy to go through profiles and evaluate them, learnability leads to satisfaction	High emotional load from being judged/evaluated by others, swiping becomes monotonous and boring after a while
Ideo-pleasure	Positive associations formed through making social connections, like finding a partner	Stigma of Tinder/online dating

Table 1. Assessment of Tinder based on the four-pleasure framework

All in all, Tinder triggers a variety of emotions from curiosity and surprise to doubts and worries about the authenticity. Sometimes, the emotions are not a direct result of the design of Tinder, but depend on the person's interactions and interpretation. In any case, there is room for improvement and redesign.

3. User Research

To identify the problems people encounter when using Tinder, we carried out interviews with representatives from our target group. The goal was to observe and interview active Tinder

users in the environment in which they naturally use the app. We first conducted a semi-structured co-discovery with a pre-formulated list of tasks the interviewees were asked to perform while using application. At the same time, we utilised emotion capture cards (ECCs) to analyse participants' experience and goals, and to identify problems regarding the application (see Appendix 6). During a follow-up interview, we then asked additional questions about their experience with Tinder, as well as online-dating and dating in general. We employed a laddering technique throughout the interviews to get to the deeper concerns underlying participants' emotions.

The user research enabled us to identify common trends among the participants. They tended to use Tinder sporadically, often in the company of friends. While they mainly evaluated other people based on their appearance and profile description, they often had doubts about the accuracy of this information compared to how the person presents themselves in real life. We were rather surprised to find that Tinder was mainly used as a way to boost self-confidence and receive positive validation and less for dating purposes. While the participants liked meeting new people on the app, they also expressed concerns about whether it is actually possible to find a long-term relationship on Tinder, since many of its users are mainly interested in short-term hookups.

To begin a deeper analysis, we first grouped the emotion capture cards by tasks and positivity of the emotion. Next, a main user goal (need) for each of the cards was defined. When examining the main concerns, we found several contradictions. We used these contradictions and the framework of dilemmas to define and frame the design problem from a HCD perspective.

Our analysis led us to formulate three main dilemmas (see Appendix 7):

- **Dilemma 1:** I want to know more about people's opinion about me vs I want to avoid putting effort into making contact with people;
- **Dilemma 2:** I want to present a realistic image of myself vs I want people to like me;
- **Dilemma 3:** I want to get to know the other person better vs I want the other person to be like they presented themselves online.

Due to the small number of participants, this user research was mainly qualitative. It must be taken into account that the participants were not observed over a prolonged time span and, thus, the research captures only a snapshot of the users' experience. Using other methods over a longer time period may reveal other potential design opportunities. Furthermore, choosing to focus on the female target group may have limited the following design process and the final design concept to the same group for the reason that other target groups might experience Tinder differently. Since we recruited the participants from our own network, which is largely comprised of university students, even female users from other groups might have a different experience that we failed to capture.

4. Starting Point for Generating Design Ideas

According to the dilemma-driven design approach, we chose a design-worthy dilemma as a more concrete starting point for the idea generation process. Such a dilemma is relevant (addresses the design brief and is relevant to a majority of users), inspirational (involves surprising elements, the design plays an important role), and formulated meaningfully (is both abstract and concrete enough, involves multiple choice alternatives).

When analysing the aforementioned dilemmas, we realised that that a common theme for all of these dilemmas is self-image: feeling insecure and comparing your own view of yourself with how others see you, which led us to the following final dilemma: **“I want the approval of others vs I want my own opinion about myself to matter the most”**.

In our opinion, this dilemma addressed all three dimensions mentioned above:

- **Relevance.** Almost everyone struggles with insecurity, bad self-image and seeking approval from others at some point in their life. It was especially relevant for us, considering that all of our participants mentioned this topic, and that it is generally an issue for our target group (young women) in our society. Therefore we felt that it would be important and valuable to attempt to solve or at least alleviate this problem.
- **Inspiration.** None of us use Tinder, so we were surprised at first that all of our participants use it to get positive feedback from others, not necessarily to find dates. Additionally, design plays an important role in how we perceive other people. Tinder's gamification makes the process of online dating very efficient, but also removes the personal and emotional connection to other people - if you can swipe through tens of profiles in seconds, you tend to lose sight of the person behind the profile. Therefore, we were intrigued by the idea of playing with the Tinder design to come up with a better solution, letting technology bring users closer together instead of making them self-conscious and disappointed.
- **Meaningful formation.** The two alternatives do not directly contradict each other, and they are neither too abstract nor too specific.

As a result, this dilemma became our starting point for further design process. Thus, the design goal is formulated as follows: **“To enable forming and maintaining social connections based on a deeper, more emotional level, while encouraging positive self-image”**.

What worked well?

We were successful in analysing the emotion capture cards to identify the underlying issues. Using this method, we managed to find a deeper level problem that many people struggle with, which we had not anticipated finding in an online dating app.

Additionally, we found that the interview carried out with two participants at the same in the format of co-exploration proved to be extremely useful and gave us a lot of valuable information, more so than interviews with a single participant.

What was challenging?

We had obtained a lot of insights from our interviews with the users. When discussing the three dilemmas we had first identified, we had a general overview of what we wanted the final dilemma to address, but it took us several tries to find the right wording for it, so that it would communicate the essence of the conflict to others as accurately as possible.

We saw the final dilemma between receiving and positive self as an extremely strong and relevant problem not only for Tinder, but for society in general. However, according to the design brief, our final design was supposed to lead to users forming social connections in real life. Our initial ideas for solving the dilemma had more to do with helping people improve their self-confidence through affirmation or introspection by themselves. Despite this, we managed to compromise and arrive at a solution that still aims to connect people, but emphasises individual self-worth in addition to positive and supportive emotional connections.

5. Ideation and Concept Creation

To explore the solution space of the project, we used brainstorming and brainwriting techniques to generate design ideas for resolving, moderating, or triggering the dilemma. Most of our ideas revolved about self-image and self-confidence (see [Appendix 2](#)).

Some of the ideas we liked but did not pursue further were:

- **Resolving.** Giving compliments to random person (i.e. compliment cam), putting a timer on starting a conversation;
- **Moderating.** Other people's comments added to profile description;
- **Triggering.** Random matches with people you did not like/who did not like you, art installation showing what goes into making pictures look perfect.

Feedback on initial ideas

We showed all our initial ideas to people not connected to this course to get additional feedback. Some of our ideas were greeted with open arms while others were immediately discarded by potential users. For example, a lack of or blurring of profile pictures was appreciated as a method of taking focus away from physical attributes; sharing insecurities was thought to be potentially difficult in case people do not feel comfortable with opening up to strangers; and people were worried about becoming dependent on the app for a confidence boost. With many ideas, there was the danger of people abusing them for bullying/insulting others, e.g. adding feedback comments/referrals to people's profiles.

We found out that negative reinforcement, such as making people in images look ugly, would probably make the problem worse: It would require putting an even bigger focus on the beauty standards in today's society, which would be the opposite of our desired goal. Instead, we were

recommended to include positive reinforcement as a psychologically proven self-confidence booster.

Refining the ideas

To further refine our ideas into a final product, we evaluated and prioritised them based on:

- **Originality** - how inspiring/interesting/new is the idea?
- **Effectiveness** - value to users, can the idea actually help with the dilemma?
- **Feasibility** - can it be done?
- **Accordance** - how well does the idea address the design brief?

We discarded the ideas that we felt did not fit the criteria strongly and tried to combine some of the promising ones to come up with concrete design solutions and applications that inspire us the most. In the end, we had a list of features we wished our final product to have:

- Blurred profile pictures
- Voice recordings to replace profile pictures
- Allow users to match with a random person
- App suggesting random topic as conversation starter
- App giving you random compliments/encouragements as positive reinforcement
- Proposed list of interests to facilitate profile creation
- Bonus points for having a conversation, namely unlocking the blurred images

This gave us a strong base for our final design proposal. The list of main features are explained and motivated in detail in the next section.

6. Final Design Proposal

From the ideation and concept creation sessions we came to the main idea of resolving the dilemma with a new mobile application. The application is focused on initiating chats with other people, based on minimal evaluation criteria. The focus of the application is thus on meeting and getting to know people based on minimal judgement without the focus on love relationships. From the user research, we found out that female Tinder users mainly seek a self-confidence boost, which we want to achieve through both approval of others and their own opinion.

Additionally, we found out that receiving a 'Like' on your pictures strengthens your self-confidence because of others' approval, but it leaves out your own opinion about yourself completely since these pictures can be edited, and may not show your real self. We address this issue by basing 'matches' on voice recordings instead of a set of self-shot and edited pictures. The goal of the voice message is to present yourself in 13 seconds, which is long enough to say who you are but too short to go into detail or start rambling.

In addition, users are required to upload 3 to 5 pictures, which are blurred on your profile. These pictures are not editable and any filters will be removed to show the real self of the subject. Putting filters on pictures would allow users to control their appearance to other users. The application aims to present users in the most honest way, so that they are valued on their true

self, which in turn supports our dilemma. These pictures will be made available one by one after you have been chatting with this person for a while and you can both show you know something about each other. A question will pop up after a random time of chatting with each other, and users evaluate each others' answers in order to unlock a blurred picture. This way, users are forced to get to know each other a little more before judging on pictures only, which supports the dilemma.

To give an extra confidence boost while using the application, random compliments, such as "*You are amazing*" and "*You are incredible*", are given to the user on loading pages. These messages are rather generic, positive and gender-neutral. In this way, we want to achieve the psychological effect of positive reinforcement.

Since we found that many users want to start a conversation immediately, random 'matches' between currently available (online) users can also be made. This match may not be completely random, since personal interests can be taken into consideration, depending on user's wishes. Personal interests can be indicated in the personal profile and chosen from a list to facilitate the selection.

Although Tinder users mentioned that having conversations is important to get to know the other person, they indicated that it can be hard to find a topic to talk about. To stimulate conversations, new topics are proposed daily and are different for each chat.

Evolution of design model

After deciding on the main goal and features of the new application, the first step towards the creation of the design model was sketching. Rough drawings on a whiteboard were made during a group session. An overview of the initial sketches is shown in [figure 1](#). Note that these sketches are very rough. It is the result of a brainstorming session aimed at visualizing the main application ideas and concepts. Some pages or elements have been changed in later designs or even already in this session. The third and fourth page from top left in [figure 1](#) are for example replaced by the first picture on the second row. This represents the main feed of the application, which works like a camera roll with (audio) profiles. Going through the profiles can be done by swiping up and downwards through this feed. The swiping left and right element of Tinder is incorporated in the choice of 'Going for a chat' or 'Not going for a chat'.

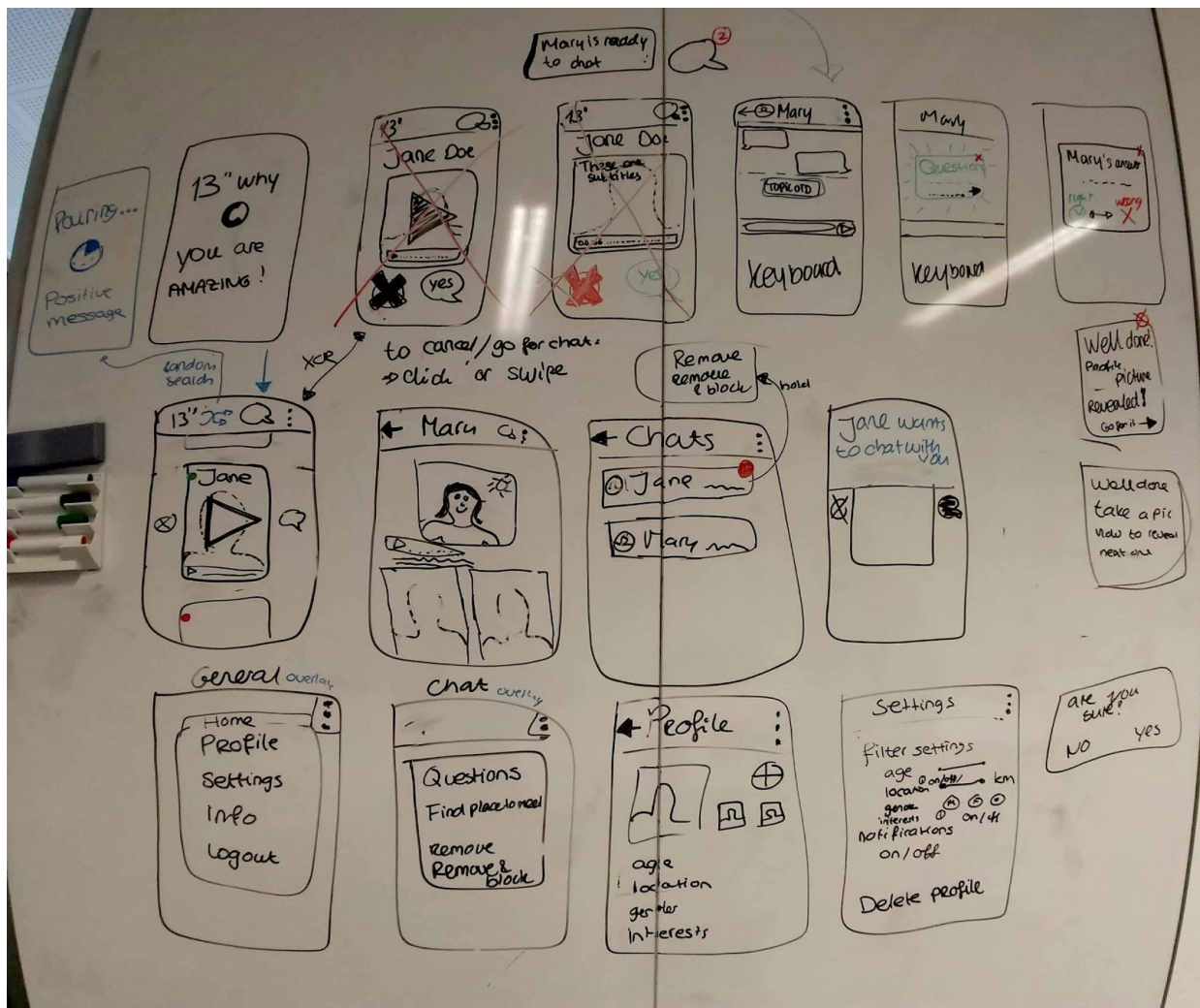


Figure 1: First sketches

The first sketches are pictured in more detail in a wireframe presented in [figure 2](#). No colors are used yet, but some interactions are made clear, and page element and terminology are refined. We chose the nomenclature in the application carefully. Where Tinder uses words such as “Matches” and “Liking/Disliking”, 13 Why uses words like “Ready to chat” and “Go for a chat”/ “Skip”. This deflects the matter from judging others and finding a perfect match, and instead puts the focus on getting to know others better before judging.

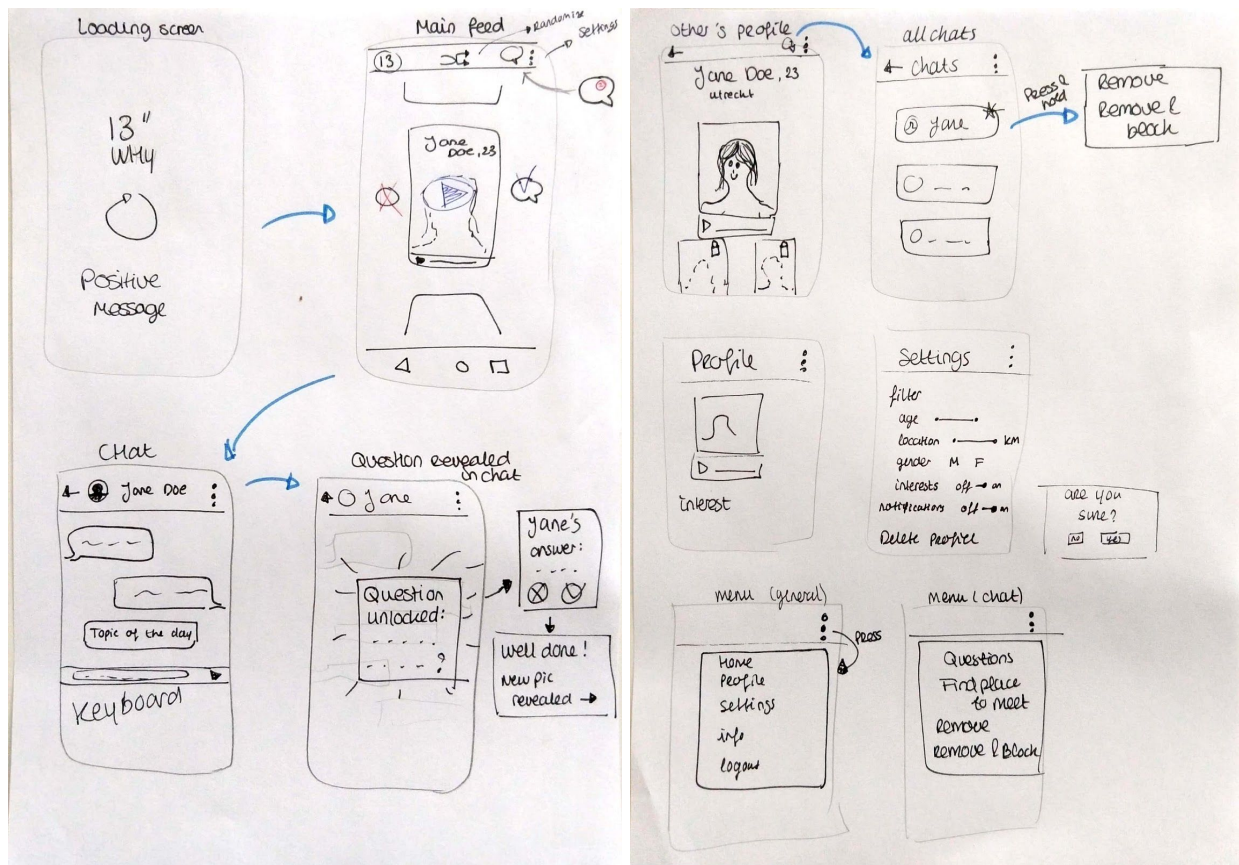


Figure 2: Wireframes

The first iteration (before evaluation) of the final design model is presented in [Appendix 3](#). A complete overview of all pages and interactions is given. The interactive mockup is made using the online prototyping tool Moqups¹ and is accessible on the following link: <https://bit.ly/2MG4n19>. The tool allowed us to collaborate as a team, and gave us the opportunity to use design principles and elements from *Material Design*², which are design principles developed by designers from Google. Standard buttons, symbols and the color schema were chosen according to these principles. We decided to go for a minimalistic, neutral, pastel colored theme, with pastel orange as the main color since it looks refreshing and energetic, and is not linked to any gender. Other elements are mainly white, black, pastel blue and light gray, which gives a calm look while keeping high contrast.

We iterated several times on the final design model, each time changing (sometimes minor) details in looks and interactions. This process was supported by scenario-driven design; for each prototype version, we analysed an extreme case and changed some elements based on our findings (see [Appendix 4](#)).

¹ <https://moqups.com/>

² <https://material.io/design/>

Final design model pages (see [Appendix 3](#))

- A. This is the loading page of the application. A positive message is displayed to boost self-confidence.
- B. The main feed is presented on this screen. On top, there is the logo of the application, a 'random chat' button, a 'chats' button and a menu button.
 - The 'random chat' button (interaction 3) leads to another loading page, where the application is looking for a random match. Then, on page D, the chat is initialized.
 - The 'chats' button leads to page G, where all current chats are presented. A star indicates that there are new messages.
 - The menu button leads to an overlaying menu, where the user can go to his or her own profile, settings, app information and logout.
 - The order of profiles on the main feed is semi-random. Location, age and interest preferences, but mainly user activity, are taken into account for user profile ordering. As we discovered in the interviews, it is important for users to be able to start a chat as soon as possible once they open the app. The aim of the application is to let users think less about their choice for which user to chat with, and spend more time chatting to get to know new people better.
 - When the user plays the audio message of a user, the option to go for or skip a chat with this person is available after 5 seconds (interaction 2, page E). This way, it is encouraged to form a real decision on whether to start a chat with someone, and the choices would, potentially, be appreciated more. Whether the voice message has actually been listened to can of course not be checked, but to make the possibility of the other listening to the message as high as possible, a mute button and subtitles are added to the design. This could be used when users are in situations where sounds are not tolerated. This is one of the outcomes of the scenario-based design approach we followed.
- C. The pairing page shows another positive reinforcement message.
- D. This page is for the chat with another user. The topic of the day is presented to inspire people to start the conversation.
 - The back button leads to page G with all the chats, and clicking on the profile picture (interaction 15) leads to the profile of the other user.
 - Questions pop up when a random amount of time has passed, but unanswered questions can also be accessed from the chat menu (interaction 16 and 18). After both users have answered the question, they evaluate each other's answers. If both are right, a new picture is unlocked (interaction 21).

Both users always reveal a picture at the same time, meaning that when a user has no new picture, he or she is asked to upload a new picture at that moment.

The picture should be shot live, at that exact moment. In addition to portraying a more true-to-life version of the user than posing multiple times for a perfect photo would, it keeps the profile up-to-date and interesting. Because of the limit of a maximum of 5 pictures in the profile, the user might have to replace one of the existing pictures. This makes the pictures on the profile up-to-date and forces the user to add recent pictures. Hereby, a more accurate image of the user is presented to the other users.

- It is possible to get a suggestion for a place to meet, shown in interaction 17.
 - When the user wants to delete or delete and block the chat and/or user, an extra prompt pops up to confirm this. The question in this popup is carefully formulated to avoid vagueness and ambiguity (Nielsen, 2018).
- E. The 'Go for a Chat' or 'Skip' buttons are respectively marked green and red.
- When a match has been made, a popup will appear on top of the screen. This leads to the chat page (interaction 8).
- F. The user can change filter and notification preferences on the Settings page. Age and gender can be specified. If the user enabled his or her own location, it is possible to enable match suggestions based on location. If the user enables 'Interests', shared interests are taken into account for random matches and match suggestions in the main feed.
- G. The 'All chats' page shows all current chats of the user.
- Whether the image of the conversation partner is unblurred depends if they have unlocked a picture of each other.
 - Long-pressing a chat leads to a popup menu where the user can delete and/or block the chat and user. This is shown by a dotted line of interaction 12.
- H. This is the profile page of the user. Items of profile can be directly updated by tapping the edit icon next to an element.
- When the user adds a new picture, another positive message appears on the screen as an overlay to the image being uploaded to boost self-confidence. This time, the message will be in first-person form (i.e. 'I am terrific!'), to support the dilemma even more.
- I. A popup screen will overlay the personal profile to change the main settings.
- J. The profile of other users consists of (un)blurred pictures, the voice message and basic information. Note that interests are not shown here, because interests are one of the topics that can be asked by the questions to unlock images.

Evaluation

The process and first final design model described above is created with knowledge from user research, brainstorming for ideation and concept creation, user feedback on concept creation, and iterative sketching and prototyping. Before the final design model can be proposed as a real product, an extensive evaluation research should be done. The high-fidelity prototype is tested by our own team members during the design phases, but not by potential users. Therefore, the final design model is evaluated using a co-discovery technique. 6 potential future users were recruited, both female (4) and male (2). Although the application design is made and inspired by all females, it is interesting to know how men adopt it.

The participants interacted with the high-fidelity prototype in pairs while thinking out loud. This method is good to capture first expressions (both verbal and non-verbal), and reveals the natural interaction with the application.

Overall, there was little difference in the experience between the male and female interviewees. Participants especially enjoyed the idea of unlocking blurred photos of others by answering questions about their conversation partner, and introducing themselves online in a slightly untraditional and novel way. They felt it reduces assessing others by purely superficial factors, such as looks. One male participant said that he sees Tinder as an ego-boost for girls and self-esteem destroyer for guys which is why the lack of high fidelity images would make him more comfortable.

Some felt that voice can reveal even more than an image and is more entertaining than reading a descriptive text. On the other hand, they implied they may have difficulties accepting this feature due to disliking hearing their own voice.

Participants saw daily topic recommendations as an inspirational way to start conversations with strangers.

Participants' opinions on the colour scheme and interface design varied a lot. Some found comfort in the pastel colours, others wished for something brighter or even lighter. One participant said the yellow-orange colour reminds them of Grindr. The name of our design ("13 Seconds Why") reminded some participants of the television series "13 Reasons Why" which also relates to negative self-image and (vide) recordings.

Regarding the positive reinforcement messages, some participants said they do not read anything on loading screens because the text gets repetitive fast. Two participants brought out that it could make them slightly happier, and one regularly collects images with inspirational quotes to go through them on days they feel sad.

It was brought to our attention that the filter removal feature is easy to bypass when uploading a screenshot of a filtered image instead. Furthermore, participants felt that they can also cheat on

the chat questions - as long as the conversation partner wants to show their pictures, they can just accept any answer as the correct one.

Seeing the online/offline status might cause participants to feel rejected in case they do not get an immediate reply from a person currently online. They would also like to see how much time ago a person was online.

According to multiple participants, the red star indicating a new message is not intuitive as they thought it was an achievement instead. This icon should be replaced with something more familiar, i.e. a dot with the number of new messages in it.

Additionally, we found out that using a higher fidelity prototype for evaluating the mock-up reduced the focus on the concept in general. Some participants lost focus on the idea of boosting self-image and assessed user interface elements instead. However, showing them the storyboard helped trigger feedback on the concept again.

7. References

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Individual reports

Laura Ham

I enjoyed this project, mainly because it was very practical. I gained some hands-on experience on all stages of a human centred design process, which I think is valuable. My main contribution to the human centred design process in this project is my active role in all phases. For every design phase we went through in this project, I had some experience already from previous projects for school and/or work. I already knew how to perform formative and summative user research, but not from a dilemma perspective. Idea generation methods are familiar to me, so applying this to dilemma driven and scenario-based design was exciting to do. I also had significant contribution in the final design sketching and mockup iterations. This is something I had not actually done before.

What I could do differently to improve my contribution in this group project is hard to address. I think I made a right balance between bringing in my previous experience and tackling new design process challenges with it. One thing that could be improved is taking a more leading role in the group. Group meetings were regularly organized throughout the course, and in my opinion they were highly efficient. However, in the beginning we did not divide the work amongst ourselves, which ended in unequal work distribution. This was not that big of a problem since we solved it immediately, but I learned that work division should be decided on before start.

From this course I mainly learned how to go through the whole process of human centred (and dilemma driven) design. I learned that user involvement is important in every step you take as a designer, and will definitely incorporate that in my future work. In addition, I learned how to actually sketch and mock ideas and concepts into a visual-based prototype usable for design and scenario evaluation. As I mentioned, I already had performed formative and summative user research to identify and evaluate problems, needs and ideas before, but have never come to the point of actual prototyping. I usually left this to (visual) designers, and only made code (non-visual) prototypes myself before.

In the paper of van der Bijl-Brouwer and Dorst (2017)³, a human-centred strategic innovation model is proposed, to solve the gap between user research and strategic design practices. The model is rather overwhelming at first sight, but contains and combines principles on all different levels from current research and design methods. There are a lot of different methods in each of the four layers of knowledge, but there is no vast plan for designers. So I think it can still be difficult for designers to choose for a specific method, since no plans are proposed to combine techniques. Accordingly, on page 15 it is mentioned that this model aims on inspiration and not on practitioners who are looking for concrete models. It is good to keep in mind that *“creating a vision is not an easy task, it is a design skill that needs practice and experience to be developed.”* (p. 14). Finally, I agree that human centred design approach does not only lead to incremental innovation, but with the NADI-model it can also lead to radical innovation.

In Hanington's paper (2010)⁴, Hanington validly discusses the need of integration of design and scientific education. I agree with Hanington that research in design and design in research should be taught so that design will not be undervalued as a scientific discipline. In addition,

³ van der Bijl-Brouwer, M., & Dorst, K. (2017). Advancing the strategic impact of human-centred design. *Design Studies*, 53, 1-23

⁴ Hanington, B. M. (2010). Relevant and rigorous: Human-centered research and design education. *Design Issues*, 26(3), 18-26

design needs research to stay innovative and integrated with other disciplines and advances. I think it is good, as a designer, to take advantage of scientific research outcomes. Proven design methods may contribute to higher appreciation from stakeholders in applying these design methods, since design process is sometimes undervalued in the commercial world.

Eva Maria Veitmaa

During this project, my group had extremely great dynamics. We did most of the tasks together or divided the sub-tasks equally between each other, to enable everyone to contribute to the design process. We overlooked, corrected, and added to the work of each other. As a result, each of us experienced nearly every aspect and task of the design process.

Because of this, it is difficult for me to bring out my main contribution to the human centred design process regarding this project. I was the one to compose the participant recruitment message and post it on social media, but in the end we also found participants elsewhere, viva voce. I contributed greatly to the usability analysis of the Tinder application, but I also left my teammates heuristic design principles to analyse. I helped with the process of distilling the user goals from and phrasing the emotion capture cards in a more understandable way, I added interactions to our mock-up and touched up on some of the elements, but so did we all.

Perhaps the contribution I deem the most important was trying to guide the brainstorm session. Whenever someone started to criticise an idea, I asked them to stop and not disregard anything during the idea generation process. I tried to make everyone feel heard, so that we would not miss any propositions due to the author considering it not worth sharing. I suppose this enabled us to come up with a large variety of raw design perspectives. Furthermore, from the non-design related aspect, I felt responsible to urge us all to meet face-to-face to make the project work flow smoother.

Since we all had a chance to work on each of the steps of the design process, it is difficult to say how the contribution could be improved. If I had taken responsibility for more tasks, the others would not have had the chance to do anything, and that would make the idea of working in a group pointless. I suppose contribution could be improved by doing everything on my own. This way I would have hands-on experience with absolutely every aspect and would be responsible for every task myself. It would be interesting to see how individual design process differs from group design. I expect it to be narrower because of the lack of other perspectives and viewpoints.

This project confirmed what I had learned from entrepreneurship already — it is crucial to listen to the users and tailor the design according to their goals, needs, problems, and wishes, not just shove a design I consider good down their throats. This way, the design is relevant for the users and, as a result, much more likely to be adopted. One key takeaway from this project is the importance of choosing the right fidelity prototype for evaluations as it turned out people may lose sight of the overall concept and focus too much on minor interface and usability aspects when using a high-fidelity mock-up.

Coming from a computer science background, it was interesting to learn about designing with dilemmas. I would like to practice dilemma-driven design further. I hope to be able to find underlying themes to superficially formulated statements and formulate problems as a tradeoff between two deeper-level goals. Although I see myself as a future entrepreneur, I consider

entrepreneurship strongly connected to human-centred design. After all, in order to succeed, both of these fields need to look further into what people say, do, want, and need.

Overall, I learned a lot about designing with humans in mind and I plan to use the gained knowledge in my further endeavours as a human-computer interaction designer and an entrepreneur.

Annkatrin Jung

It is hard to say where my main contributions to the human centred design process lie since we were consistently trying to divide the work and include every member of the group. During some tasks, a few people took on more work than others according to their strengths and prior experience, but the others contributed as well by evaluating their work and giving suggestions for improvement. Overall, I feel like we had a very balanced team with all members participating nearly equally during all steps of the project.

Since I had already done user interface and user experience evaluations during my Bachelor's studies, I carried out a large part of this task during the first weeks of the course. I was also very involved in the first user evaluation, for which I recruited some participants and conducted the interviews together with other members of the team. My other main contributions include evaluating the emotion capture cards, writing scenarios and collecting feedback on our initial design ideas.

While I was very involved in the first and third of the three phases of the process, I was less active during the second phase. Therefore, I would like to focus more on the creative parts of the design process during future projects, e.g. generating design ideas, creating mockups and prototypes. I tend to focus more on the rational than on the imaginative aspects of work, so this could help me to further develop my creative thinking and to give my personal input to the project. Additionally, I found it hard to follow the individual steps of the idea generation process, i.e. brainwriting and brainstorming. I was tempted to evaluate each idea immediately as it came up, which also made me hesitant to bring up my own ideas. In future projects, I want to focus more on keeping an open mind towards all kinds of ideas, and only judging them after the idea generation is over.

This course confirmed to me how important it is to include target users in the development process of any kind of solution. Developers can sometimes get carried away by their excitement about a new idea or technology, and forget to investigate if it would even be useful or valuable for others. Human centred design methods can prevent these issues by consulting users at every step of the process to make sure that their needs and wishes are addressed.

While this goal was also emphasised during my previous studies, the focus there was mainly on quantitative studies using the scientific method. These were presented to me as more valuable and important than qualitative methods, which were often criticised for their lack of generalisability and replicability. However, it was very interesting to get a different perspective in this course and learn about the merits of qualitative research and how the two approaches complement each other.

Regarding my future profession, my goal is to develop solutions which make a positive difference in people's lives, e.g. in the healthcare sector. Human centered design is obviously extremely important in this area, for both designing solutions and communicating them to a

wider audience. In this regard, this course was very valuable for me. What I can take with me for future projects is the importance of finding a good balance between quantitative and qualitative methods, depending on the context of the project. Additionally, I learned that keeping a scientific attitude is essential for both approaches, meaning that any kind of research can be improved by keeping an open mind, adopting a thorough, inquisitive and ethical attitude, and staying curious.

Iza Grasselli

As presented in the article (2010)⁵, human-centeredness is indispensable when dealing with today's innovation problems. While this article explores and assesses the balance between research and design processes of current educational institutions for designers, and arguments why the knowledge of rigorous research is valuable for designers, the second article (2017)⁶ considers bridging benefits of human-centred design and strategic innovation.

Both papers take into account a plethora of different methods that designers (should) use. From product evaluations to carefully designed experiments as well as contextualised research that ensures well rounded perception of what users want or need. Despite all these methods performed during the design process, it is still a challenge for designers to transform the gathered abundance of data collected into a practical solution that answers customer needs in the real world scenarios. As concluded from reading the articles, closing this gap can best be achieved through close collaboration between users and designers and by inviting each other to enter the worlds of each other and appropriate experiences. This mutual knowledge sharing between users and designers is, as I have concluded from the readings and lectures throughout the Human centred design course a key ingredient for successful transformation of current situations into desired ones. Another important point realized from this course is that design seems to be focusing more and more on emotions rather than physical and cognitive needs of users (also portrayed by the use of emotion capture cards and dilemma driven design in class). Thinking about this, it actually seems reasonable since focusing on deeper levels of human character might seem strange at first, but at the end of the day, aren't emotions, values, and aspirations what influences people's acts and overall behaviour. If the design is able to elicit pleasurable experience it is unlikely to be tagged as useless since, ultimately, maximizing pleasurable experiences is what people strive towards in most cases.

As already noted by my teammates, the work contribution to the project of each of us was well balanced and it is hard to specify what the main contribution I brought to the table was. Coming from different backgrounds, cultures and experiences, we each have our strengths which we were able to use by delegating project work. On most tasks, however, we worked in collaboration, which I believe was very effective, since we could all combine our knowledge to generate the best outcome. During the project I enjoyed taking part in organising and carrying a user research session, evaluating and shaping user generated content and feedback, finalizing of dilemmas and creating a storyboard. At the beginning of the project when we were still figuring out our team dynamics, I could improve my contribution by proposing that we split the writing tasks in advance, because individuals who had more time at the beginning of the week were able to complete more parts before the others.

⁵ Hanington, B. M. (2010). Relevant and rigorous: Human-centered research and design education. *Design Issues*, 26(3), 18-26

⁶ van der Bijl-Brouwer, M., & Dorst, K. (2017). Advancing the strategic impact of human-centred design. *Design Studies*, 53, 1-23

I found the course as a good, constant reminder of the importance of human centred approach to designing. I enjoyed exploring various new approaches to satisfying user needs, especially dilemma-driven design and scenario-based approach. I look forward to applying experience learned in this course in my future. As evident from what we learned in class and the two papers mentioned above, the acquired knowledge is valuable in multiple areas and is likely to be useful wherever I end up. Main finding which I hope will stick with me is certainly that taking a step back and exploring deeper causes of our actions will likely yield better designs even though at the moment of carrying out the necessary steps (back) to achieve this feels like stepping in the wrong direction.

Chloé Mélanie Claire Dalger

All along the project, we tried to divide the work equally among every person in our group such as every single person can be part of and contribute to every processes of our project. We often met altogether to define our work, emphasize what we have to do and take the “big” decisions altogether to make sure that we all start on clear bases. I think the main asset of our group is that we almost all come from a different country, with a different culture and different education, which it’s making us think differently and having different point of views and ideas. It also means that we have different interests and strengths that we could use for the project. Even if I consider that we are all what Bruce M. Hamington calls “scientists” in his paper⁷, I feel like nowadays we can’t really make a real difference between designers and scientists. I feel like I’m both. Coming from a computer science education, I had to create software, applications, websites, etc. and think about the design part. In more and more schools, they teach you how to a program well but also how to design well and evaluate the design. I feel like it’s also the case in Twente and that’s why this class is part of a scientific program and has a design class. I agree it’s useful to have both point of view of a scientific and a designer, but I also consider in this class now that we are both and I can’t really make a distinction. We can see in the paper of Van Der Bijl-Brouwer and al.⁸ that HDC is becoming more and more important and that there is a constant development of new design principles. HDC is like a new “must”, we know now that it’s essential to develop a product, way of working, methodology etc. and we teach scientists to think also as a designer.

I would say that my main contribution in this group was the UX part, where we had to do the mockups. I was always interested in the UX evaluation and establishment whenever programming a software or other. Creating, based on the remarks made by the users during the evaluation, a prototype that could allow them to fulfil their needs and aspirations (Van Der Bijl-Brouwer and al.) and at the same time, a prototype that is easy and nice to use: user-friendly. However, I think I need more experiences in writing reports in English. Writing reports are important because it’s a clear explanation of what have been done so far and how to

⁷ Hanington, B. M. (2010). Relevant and rigorous: Human-centered research and design education. *Design Issues*, 26(3), 18-26

⁸ van der Bijl-Brouwer, M., & Dorst, K. (2017). Advancing the strategic impact of human-centred design. *Design Studies*, 53, 1-23

present the project. Even if I worked on the reports, as my English needed to be improved, my group had to read my work and correct it, which made us lost some time.

I think that this class could be useful in my future job. My next internship, beginning on March, is an E-Commerce and IT position. I will be the link between the IT team and the E-Commerce team. So, I will help the IT team to develop things for the E-Commerce team, and I will guide the E-Commerce team to know what it's possible to do. Human centred design is really important in that job as I will have to create contents, websites, campaigns, etc. that will have a direct contact with the client and must be adapted to his needs and aspirations. I will have to establish user researches based on what I create, even if these researches will probably be more online like A/B testing and forms. Then create a prototype and based on the feedbacks, we will have to recreate something new that is more adapted to user's needs, i.e., and iterative design process and prototyping (Van Der Bijl-Brouwer and al.). I agree with Van Der Bijl-Brouwer and al. when they say that "gaining customer insights are the key element of design innovation" and for that we need to find "what is truly meaningful to people". That is exactly why I took this class in the first place (I am an Erasmus student so I'm not part of a program, I can take every classes I want, no matter the subject). I really wanted to improve my formation knowing what my future internship is, and I think it's really hard to do this job when you don't know the basics in Human Centred Design. At the end, it gives me a better idea of what is designing, and the process to create something new and better adapted from something that already exists which will be my day-to-day job.

Appendix 1 - Usability and User Experience Analysis of Tinder Mobile Application

Tinder is currently one of the most popular dating applications in the world. The idea behind Tinder is to like and dislike fellow users, find a match, meet and chat with new people. Although Tinder hosts both a mobile and web browser based application, in this report, only the mobile version is assessed. The usability and user experience are evaluated sequentially.

Human-Centered Design Principles

To evaluate the usability of the Tinder mobile application, 12 design principles focused on the learnability, effectiveness and accommodation are used (Benyon et al., 2005). These 12 principles focus on systems to be learnable, effective and accommodating.

Visibility

The main features of the app are for the most part clearly visible. On the main page, you can see other people's profiles and five colorful icons for different possible actions. In the messages tab, users can see all of their matches and search for particular ones.

However, not all features are easy to find. As discussed below in the "Affordance" section, additional options to edit your profile are hidden, insofar that it is unclear that you can swipe up to discover more options.

Consistency

Tinder only has three main pages, whose layout is mostly consistent with the other pages: They have the same color scheme and similar navigation. The design is also consistent with other apps, such as the settings page which looks identical to the iOS settings app.

However, the navigation is neither consistent within Tinder nor compared to other apps. There are some uncommon elements which do not appear in other apps, such as swiping on top to navigate to other pages. More often, it is possible to swipe anywhere on the screen. In Tinder, this is even the case in the profile tab and the messages tab, but not in the main view. There, swiping in the middle of the screen means liking or disliking other users. This can easily cause mistakes, since the user might accidentally like or dislike a person when they only intended to navigate to a different page.

The detailed view of other people's profiles included another inconsistency. An arrow button is shown which usually suggests to users that they can discover more by swiping down. However, in Tinder you can tap the button to navigate back to the main page. This design is very counterintuitive, and can only be discovered by trying out possible actions.

Familiarity

The app uses several icons in its user interface. Most of them are quite clear (i.e. the message bubble), but some may be a bit confusing. While the 'green heart' and 'red cross' icons may be more obvious (like and dislike), the functionality of the 'blue star', 'purple lightning bolt' and 'yellow arrow in the form of a circle' remains unknown until one has clicked on them. The 'yellow arrow' may be confusing because in modern web browsers the symbol is connected to the refresh function, but in Tinder, it means 'rewind', 'return', going back to the previous person.

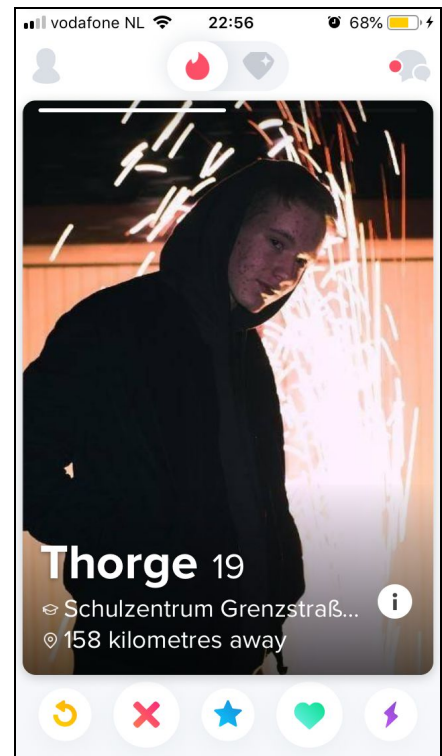
The messenger section is similar to most modern messaging apps and the menu bar is at the top of the screen which is common for most mobile apps.

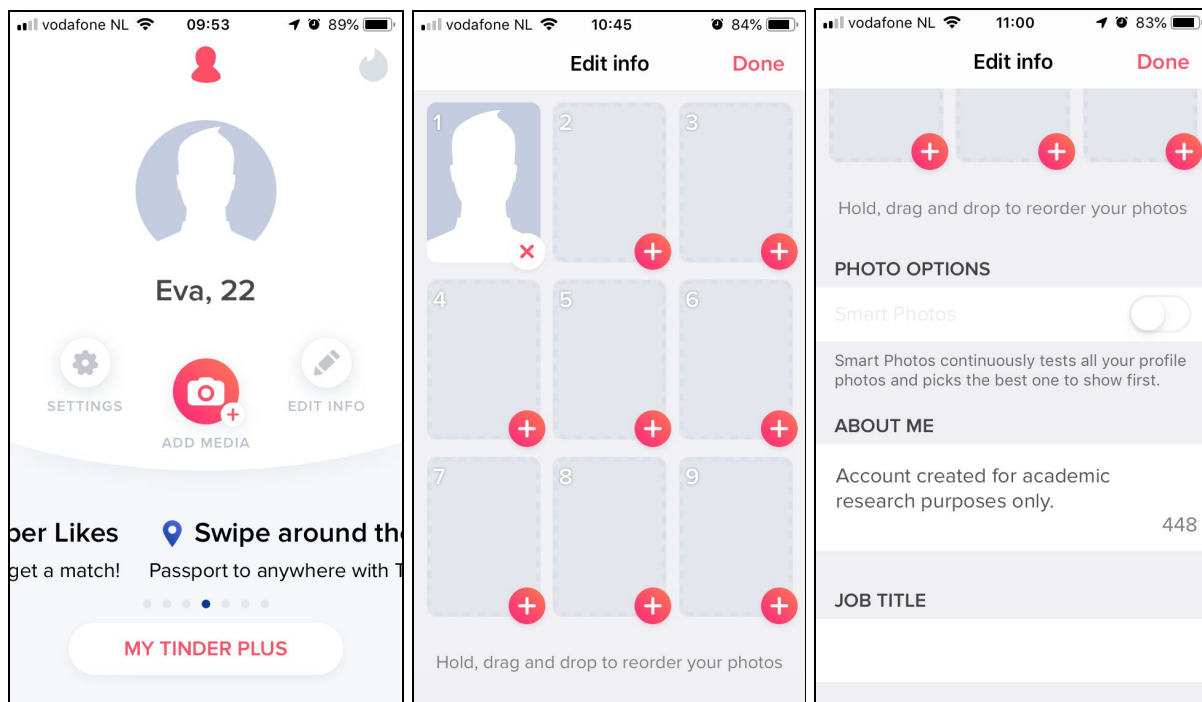
Affordance

On the first look, the swipe-to-like feature is not obvious. Fortunately, however, the user interface also has buttons, and once the user (accidentally) swipes left or right on the main screen, the accordingly moving picture definitely affords swiping.

The clearest affordance example is probably the toggle switch at the top of the main screen that enables to navigate between 'all profiles' and 'top picks'. The buttons in the personal profile editing section have shading which makes them seem elevated and supports the pushing affordance.

The 'edit info' section, on the other hand, has a confusing layout. At first, it feels like the only thing the user can do is adding more photos. It is not clear that the screen can and should be scrolled down to uncover additional editable fields.





Navigation

The navigation around the app can be difficult. A lot of space is taken up by advertisements, which are sometimes animated. These, as well as other ads and alerts which frequently pop up in a new view, might be distracting and annoying for users.

In general, the navigation is different from other apps. Apart from the elements which were already mentioned in the “Consistency” section, further unusual features include the interaction with other people’s profiles: You can swipe to like or dislike them, but tapping on the picture lets you see all of their pictures and go to the detailed view of their profile. From there, it is unclear how to navigate back to the main page. The like and dislike buttons are again shown on the bottom of the page, but you have to tap the red arrow to go back without taking an action, which is quite unusual and confusing.

While the navigation is never explained in the app, it does not take much time to discover the various features when playing around and to get used to them.

Control

For clear control, the app should make the effects of different actions clear to the user. While the actions are demonstrated the first time the app is opened, there is no way to review them later on and, thus, it may be unclear what tapping on the different icons does, and what the difference between a like and a superlike is. Thus, users might have to figure out the functionalities themselves, which could make them feel rather uncertain and confused than in control.

However, if speaking more conceptually, the fact that Tinder allows you to decide who can contact and talk to you gives you the feeling of control.

Feedback

When swiping left, right or up, the profile picture of the assessed person gets an overlay message of '(dis)like' or 'super like' indicating what the result of the swipe will be. The first time the user presses the super like button, they are presented with a confirmation modal describing what the super like is and whether they are sure they want to give one. However, this is just a one time thing and the following times no confirmation is asked. This is a pity because in the free version, the user has a very limited amount of super likes that they may now lose because of a misclick.

Recovery

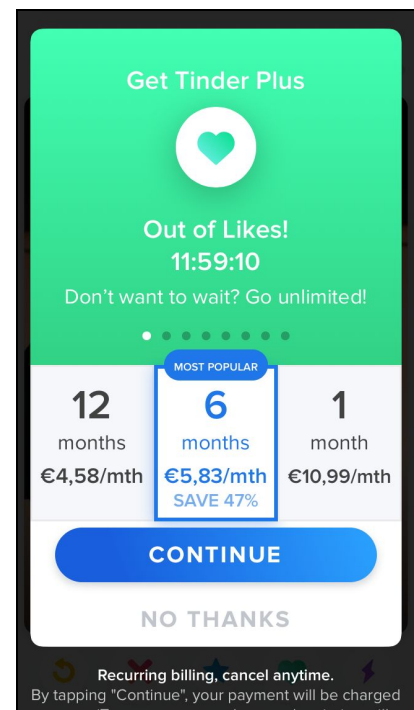
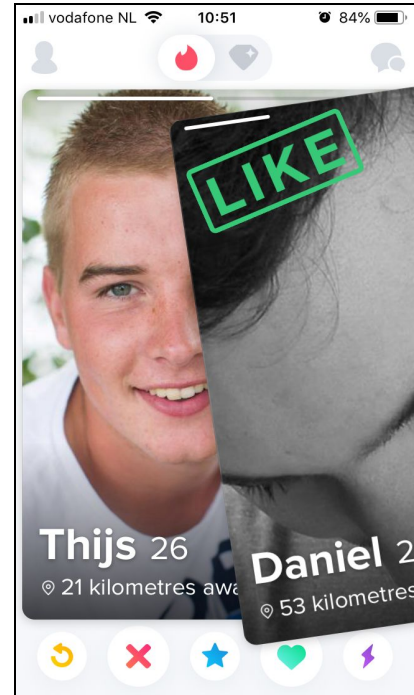
Recovery from errors, such as swiping the wrong way, is available in the premium version. However, as long as the finger has not been released from the screen, the user can swipe back to the center of the screen to cancel the action.

There is no possibility of deleting messages that have already been sent. However, it is possible to unmatched with somebody at any point in time.

Constraints

Constraints are only provided when editing the user profile. If the user wants to add pictures, they have to confirm the upload after choosing pictures from their library. Confirmation is also needed for other parts of the profile.

However, this principle is not fulfilled when it comes to interaction with other users. You can only decide once if you want to swipe left or right on a profile. While this makes the process faster and simpler, it also facilitates mistakes. Furthermore, the app does not constrain the messaging function at all. Users can send whatever message they like. Again, this is positive since censorship or patronising controls should be avoided, but it also allows users to send inappropriate messages containing (sexual) harassment or threats.



Flexibility

Tinder is not very flexible as far as the user interface, looks and behaviour of the app is concerned. The user cannot change anything apart from their own profile and information, for example, adding images, descriptions, or connecting to external accounts (Instagram, Spotify).

Style

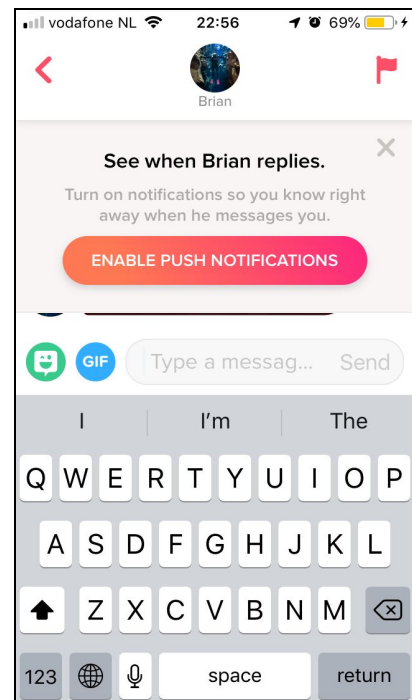
The style of Tinder is quite modern and sober with a lot of grey and white. Colors are presents whenever Tinder wants to draw attention to some aspects of the app (buttons to swipe, promotions, etc.). The style is uniform throughout the different layouts which preserves consistency and clarity and shows the cohesion and the interconnectedness. This will help the user to not get lost.

The main layout is specifically about putting forward the profile of a potential match, which is the main feature of Tinder.

Conviviality

Tinder has a daily limit of likes the user can give out and when that limit has been reached, the user is interrupted with a pop-up message. Sometimes the advertisement promoting the premium version may come across as too intrusive or unwelcome.

If the user has not turned on the notifications, they are presented with a temporary message every time they open a chat window. Although the message disappears at some point, it covers most of the chat window at first, and can be annoying, especially when the user is sure they do not want to turn the notifications on.



User Experience

On the first encounter with the mobile app, Tinder's colourful design brings about positive emotions that set one in a mood to explore. It creates a playful environment that makes the experience positive. Similarly, the right/left swiping actions seems to be very game-like and make this part of the interaction with the application very easy, fun and pleasant to use since it allows one to sift through tens of profiles in a matter of seconds.

The fast responses that Tinder enables through its matchmaking design choices leave individuals pleasantly surprised. It makes them desire to spend more time on the app to keep receiving notifications about matches that have been made. On the other hand the fast feedback (10 people in 2 minutes) can raise doubt towards the authenticity of likes and decrease the sense of self worth, which is exactly the opposite of what many people report to like to experience while using Tinder.

One of the issues with Tinder is that it does not engage the users enough to continue using it for communication. Most often it happens that people eventually transition to another messaging platform. However this might not have anything to do with the design itself but rather the meaning that it conveys, as the switch to a different platform suggests a more personal relationship. Hence, continuing the conversation using only Tinder can trigger dissatisfaction and frustration since people can see it as a sign of failure.

Additionally, the fact that you can only swipe right or left and have no way of going back to the person you skipped (in the free version) provokes indignation. Especially if a user is indecisive, it can be very frustrating that they have to choose either yes or no to a potential match and do not have the option to save it or put it on the maybe list in order to decide whether to swipe right or left later.

Another pain point of the application are ads and popups which create a lot of annoyance when using the application as they are not very subtle.

Regarding pleasure, mobile applications inherit some aspects from the hardware (and to some extent software) of the mobile phone devices. The goal of an application like Tinder is to fit the application as much as possible in the design of the smartphone, to make it as pleasurable as possible. This counts for looks and feels of the application as discussed in the 'Usability' part, but to some extent to other dimensions of pleasure as well. Socio-pleasure plays a key role in Tinder, but could be improved by making the chat function more pleasurable, since many users tend to use other chat applications instead of the built-in chat function. Psycho-pleasure is also very important to consider when designing Tinder, because actions might influence cognitive and emotional status of users. Psycho-pleasure is therefore mainly addressed by the high emotional load of using Tinder, rather than the satisfaction of acquiring new skills or knowledge. The last dimension of designing for pleasure is ideo-pleasure. This is important to consider when designing an application with a social purpose like Tinder, because it concerns people's values. People will attach very different values to Tinder, if an emotional relationship grows from

a match, people might attach a high value to Tinder. But interestingly, when a more stable relationship is the result of a Tinder match, users will generally stop using it, so the value the (post-)user attaches to the application will decrease.

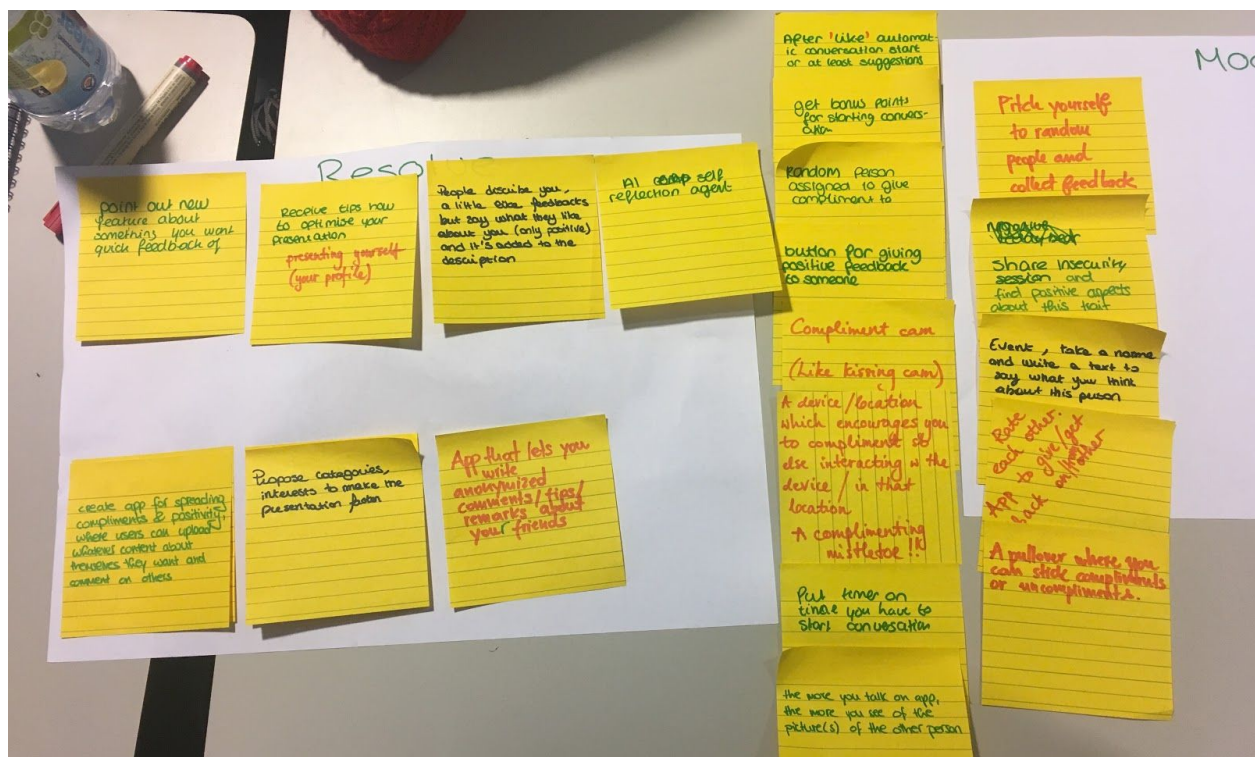
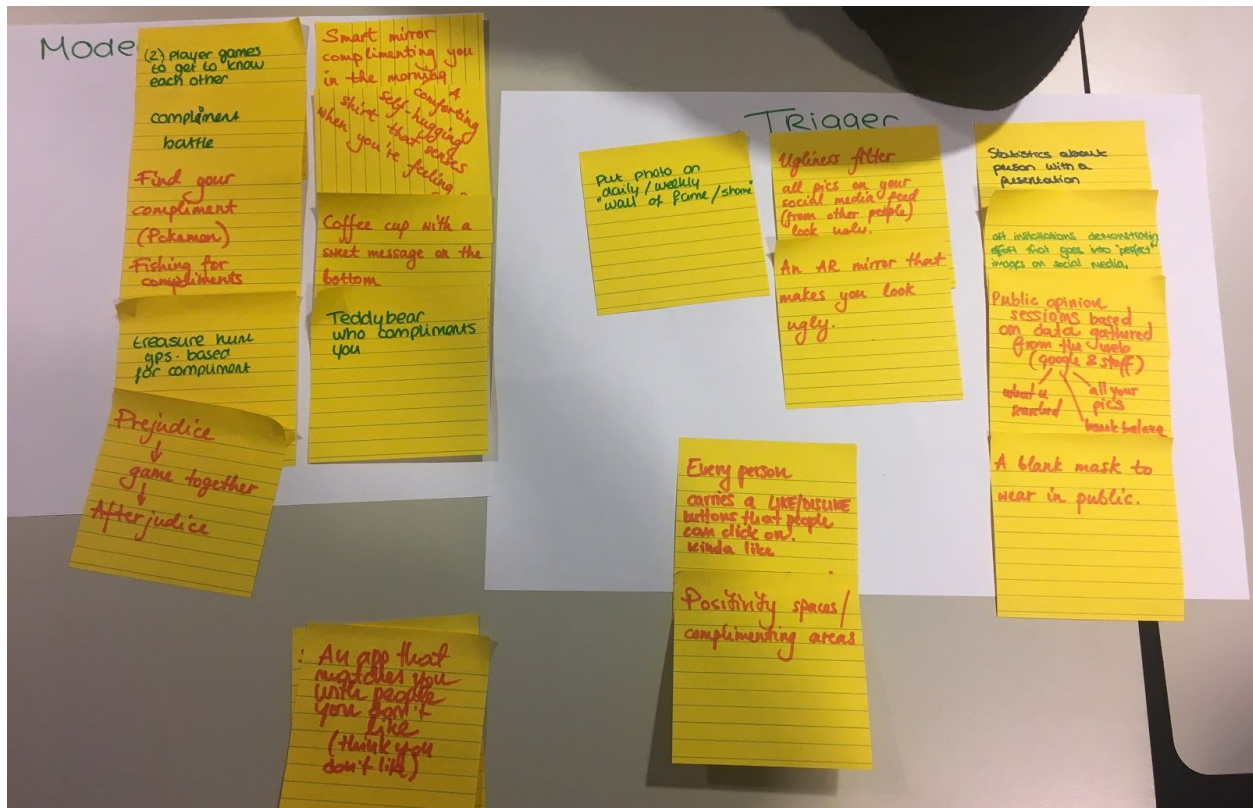
Conclusion

Overall it can be said that there is a wide range of positive emotions that can be experienced using the application, such as fun arising from playful implementation and the attempt to resemble real life dating, enjoyment of being matched up and curiosity to see who the match is. At the same time there are also some negative emotion triggers which are mainly a result of a lack of proper instructions for navigation within the app for inexperienced users as well as doubts and irritation which arise due to inappropriate interaction between people using the application. These are not the direct results of the design choices but of people using the application.

References

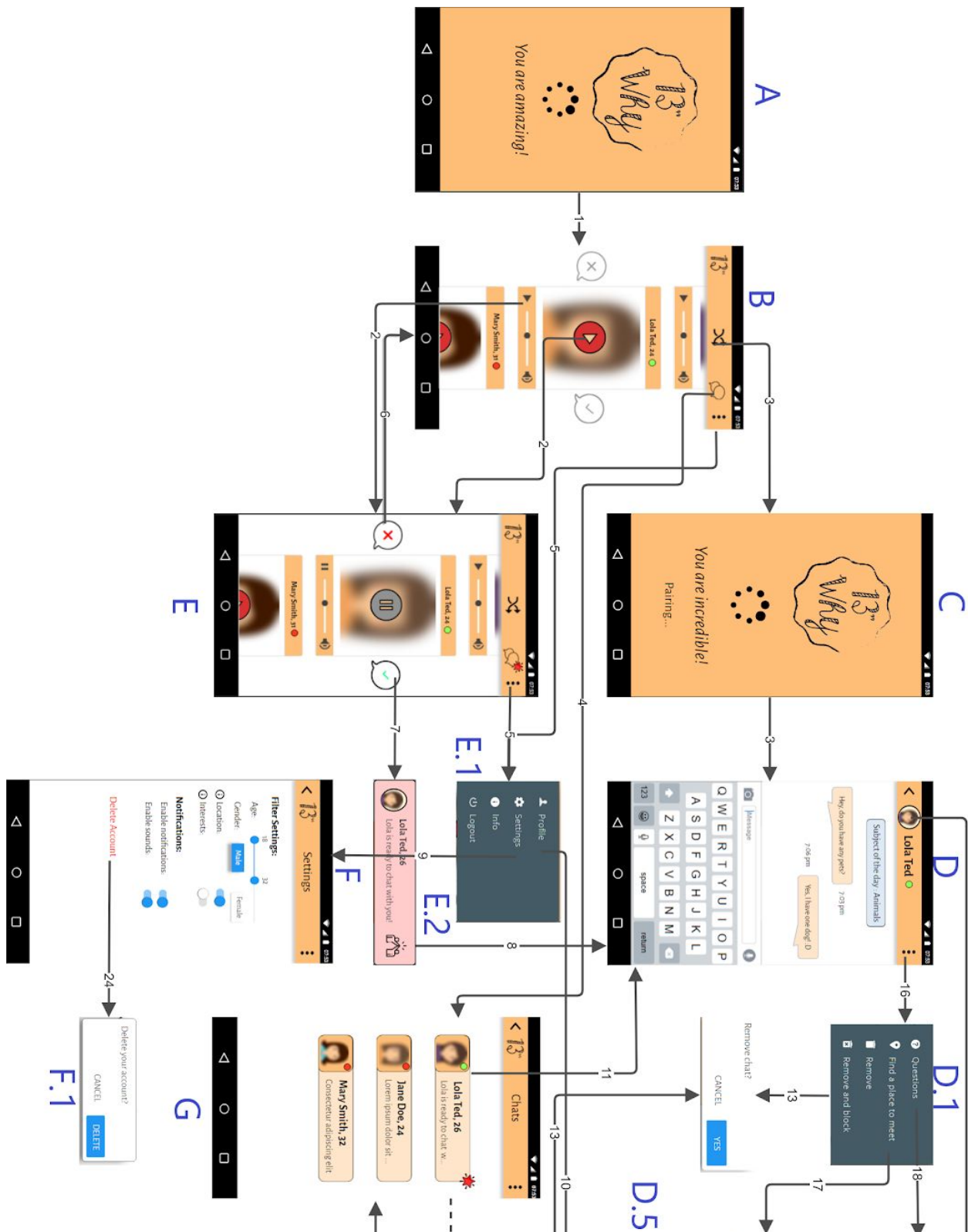
Benyon, D., Turner, P., & Turner, S. (2005). *Designing interactive systems: People, activities, contexts, technologies*. Pearson Education.

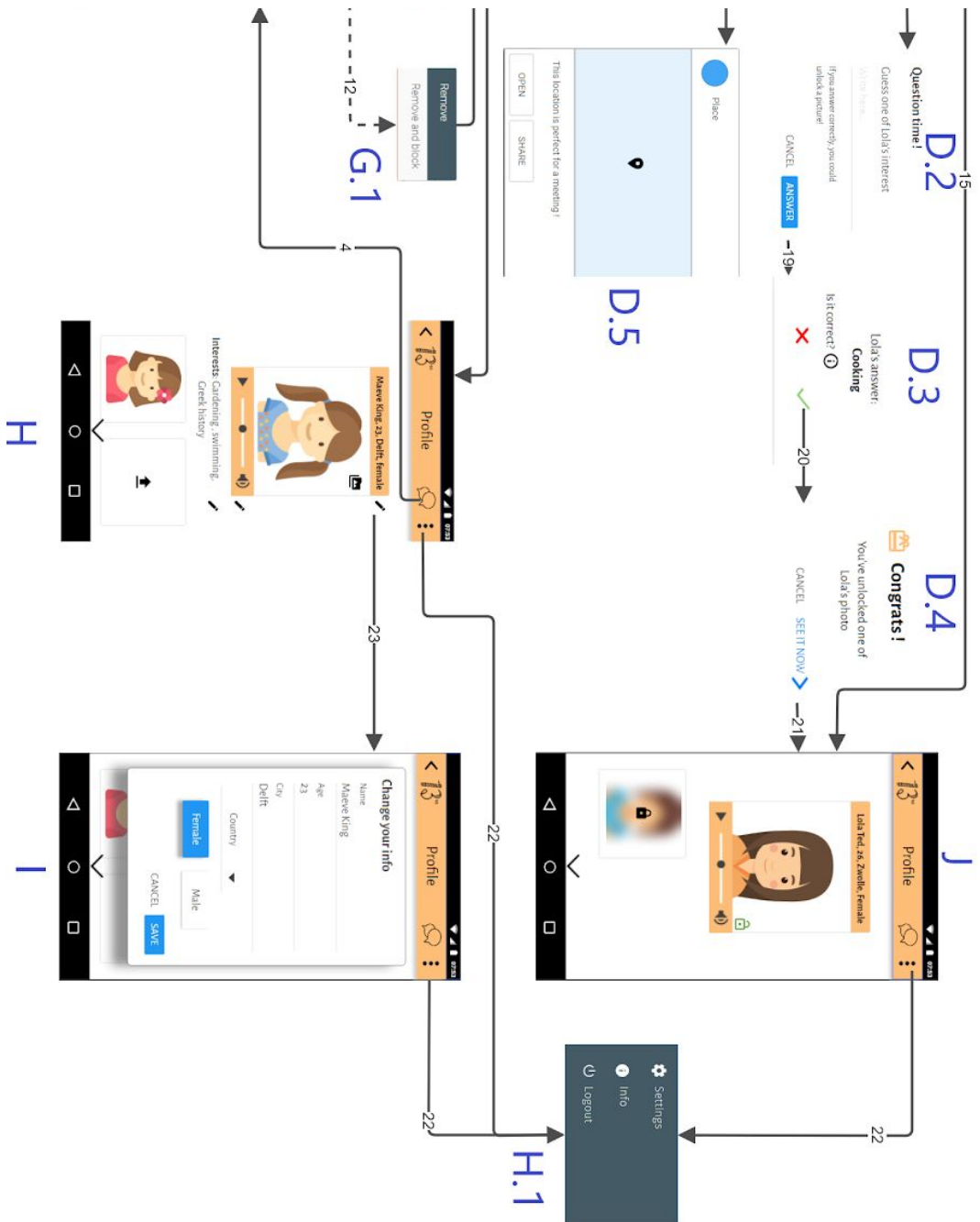
Appendix 2 - Ideas from Brainstorming Session





Appendix 3 - Interactions in Designed Application





Appendix 4 - Scenarios

1. Setting:
 - a. At home
 - b. Alone
 - c. Late afternoon, it's getting dark outside
2. User:
 - a. Female
 - b. 20-25 years old
 - c. Single
 - d. Feels lonely
 - e. Searching for entertainment for the moment
 - f. Is self-conscious because she is a bit overweight
 - g. Feels safe with phone at home
3. User goals:
 - a. Entertainment
 - b. Meeting new people
 - c. Validation
4. User actions and events:

Scenario 1:

It is a late afternoon. It's getting dark outside and Jane is sitting at home, alone in her room. She is single and self-conscious about her weight. She feels a bit lonely and because she is bored she opens the application - 13" *why*. She is greeted with a welcoming screen and a message: "You are amazing!". She already feels a bit happier than before.

She browses through the active profiles trying to find someone to talk to. She looks at the blurred images which do not give her a lot of information, and listens to the 13 seconds long audio descriptions the other users have recorded. Altogether she scrolls through 8 profiles, but because she does not find anyone she considers extremely interesting, she closes the application and proceeds to watch Netflix.

Issue: not finding someone you want to talk to

Solutions:

- Random match button
- Setting screen: filter by interests
 - > show people with common interests first in the profile browsing screen

Scenario 2:

Addition to app: random match button

It is a late afternoon. It's getting dark outside and Jane is sitting at home, alone in her room. She is single and self-conscious about her weight. She feels a bit lonely and because she is bored she opens the application - 13" *why*. She is greeted with a welcoming screen and a message: "You are super cool!". She already feels a bit happier than before.

She browses through the active profiles trying to find someone to talk to. She looks at the blurred images which do not give her a lot of information, and listens to the 13-second-long audio descriptions the other users have recorded. Altogether she swipes through 5 profiles, but she does not find anyone she considers extremely interesting. She notices the "Random chat" button and presses it.

She is presented with a conversation screen and the chat topic of the day: "What are your views on gender equality?".

"That's a controversial topic," she thinks but greets her conversation partner anyway, wanting to find out what they think about this. She gets a reply almost immediately.

In the first five messages it is already clear to Jane that their views on this topic are contradicting. She feels uncomfortable continuing, so she closes the application completely feeling a bit sour about the experience.

Issue: not being compatible with the random match

Solution: adding an interest filter

Scenario 3:

Addition to app: interest filter

It is evening. It's dark outside and Jane is sitting at home, alone in her room. She is single and self-conscious about her weight. She feels a bit lonely and because she is bored she opens the application - 13" *why*. She is greeted with a welcoming screen and a message: "I like you more than cake!". She feels surprised and amused, because she had just baked a cake earlier, and it feels like the app knows about that (it does not, of course, it is just a funny coincidence).

Today, she feels like talking about her favourite musician - Lady Gaga, so she presses the "apply filters" button and is presented with a page where she can add filters to profiles she is being shown. She toggles on the 'music' filter, leaving all other filters turned off, and navigates back to the main page.

She swipes through the active profiles trying to find someone to talk to. She looks at the blurred images which do not give her a lot of information, and listens to the 13-second-long audio descriptions the other users have recorded. The first three profiles seem interesting already, so she chooses the second one by clicking the "Chat"-button, because the second one mentioned she likes listening to pop music, which Jane does, too.

She is presented with a conversation screen and the chat topic of the day: "If you were an animal, which animal would you be?". "This is not really what I wanted to talk about," Jane thinks, but greets her partner anyway, introduces herself with her first name, and says she would be a cat because she enjoys drinking warm milk and long naps and prefers to keep on her own. Her conversation partner introduces herself as well and reveals that she would be a bat because she prefers staying up late.

They discuss animals for a while, and her conversation partner sends Jane a link to a cat video with a popular pop song in the background. Jane comments on the song and they start talking about music instead, just as Jane had originally intended.

Issue: chat topic does not match user interests and what she wants to talk about

Solution: present chat topics based on user interests, not randomly

-> may run out of chat topics soon, not a good idea, was discarded before;

Let users guide their own chat topics by presenting a topic to discuss but not checking if this is actually discussed

Scenario 4:

Browsing through the profiles, finds one she wants to chat with.

She is presented with a conversation screen and the chat topic of the day: "Which physical feature about yourself are you unhappy about?". She feels a bit uncomfortable, because she considers herself to be a bit overweight and has not really talked to anyone about this, but greets the conversation partner anyway and introduces herself using her first name.

Her conversation partner greets her back and says that her biggest insecurity is having acne on her face. After seeing her chat-buddy elaborate further on this, Jane is inspired to talk about her weight. Together they come to the understanding that there is nothing wrong with them and they keep chatting on.

-
1. Setting:
 - a. On a train
 - b. With strangers
 - c. Afternoon, after school
 2. User:
 - a. Female
 - b. 20-25 years old
 - c. Single
 - d. Feels lonely/bored
 - e. Searching for entertainment for the moment
 3. User goals:
 - a. Searching for entertainment to pass time
 4. User actions and events:

- a. User does not have headphones and does not feel comfortable listening to the voice messages
- b. She tries to choose based on blurry images, but feels like this doesn't give her enough information, and ends up selecting a profile at random

Scenario 5:

Mary is taking a crowded train to go home after a day at school. She feels bored and a little lonely because she will come home to an empty apartment, and she decides to open the app to pass the time and talk to people. But then she realises that she left her headphones at home this morning, and she does not feel comfortable listening to voice messages in public. She scrolls through the blurred images, but they don't give her a lot of information, so she ends up selecting a profile with colourful image.

Issue: not being able to listen to voice messages in certain situations

Possible solution: generate subtitles for voice messages

Scenario 6:

Mary is taking a crowded train to go home after a day at school. She feels bored and a little lonely because she will come home to an empty apartment, and she decides to open the app to pass the time and talk to people. She listens to a few voice messages through her headphones and selects a person to talk to.

After they have chatted for a few minutes, she is prompted to take a picture of herself that will be shown to her conversation partner. She feels a bit self-conscious about taking a selfie in public, but decides to go ahead anyway since she is curious about the other person's picture. While taking the picture, she notices that the older man sitting next to her shoots her a disgruntled look. Feeling a bit upset, she stops using the app and spends the rest of the trainride in silence.

Issue: social acceptability of taking pictures/interacting with others on social media in public

Possible solution: this might actually be a good thing, since it could help people to not care so much about what others think of them, put them out of their comfort zone. They are not actually doing anything wrong or hurting anyone by taking selfies in public.

Scenario 7:

Mary is taking a crowded train to go home after a day at school. She feels bored and a little lonely because she will come home to an empty apartment, and she decides to open the app to pass the time and talk to people. She listens to a few voice messages through her headphones and selects a person to talk to.

After they have chatted for a few minutes, she is prompted to take a picture of herself that will be shown to her conversation partner. After exchanging pictures with the other person, she sends a message complimenting their hair in the picture. But she only receives a short "thanks" before the other person changes the topic. A bit confused by this, she worries about whether the

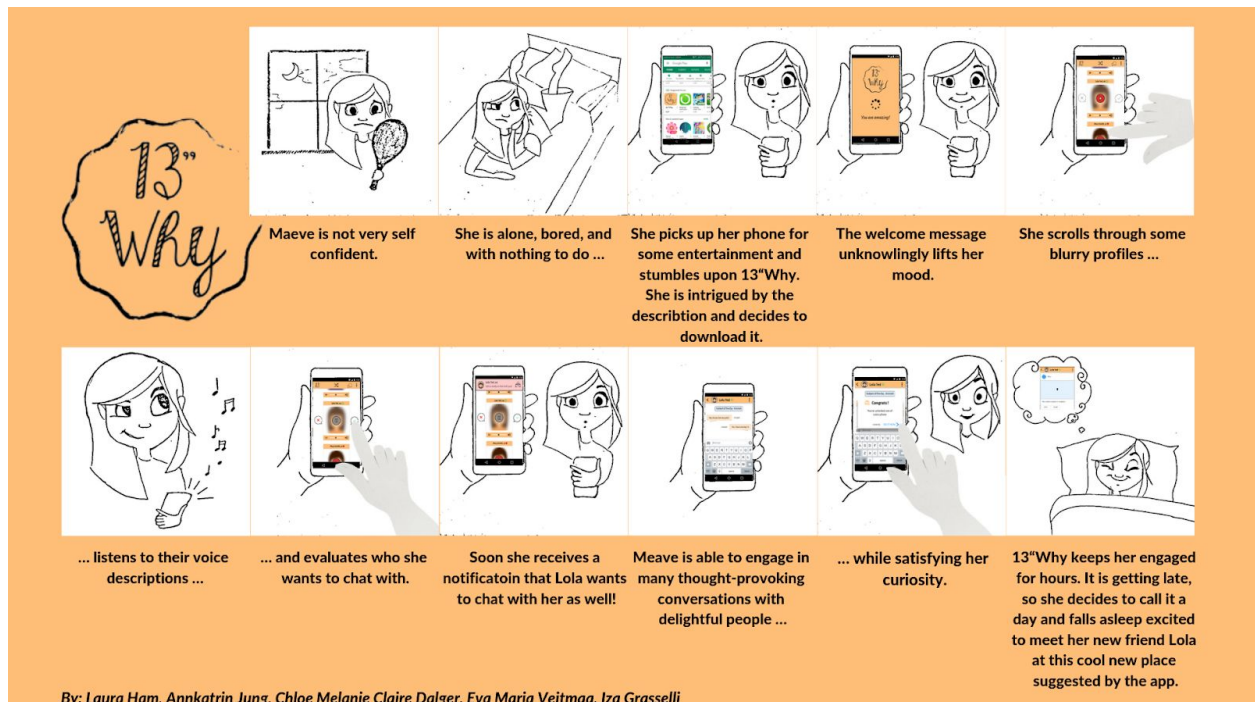
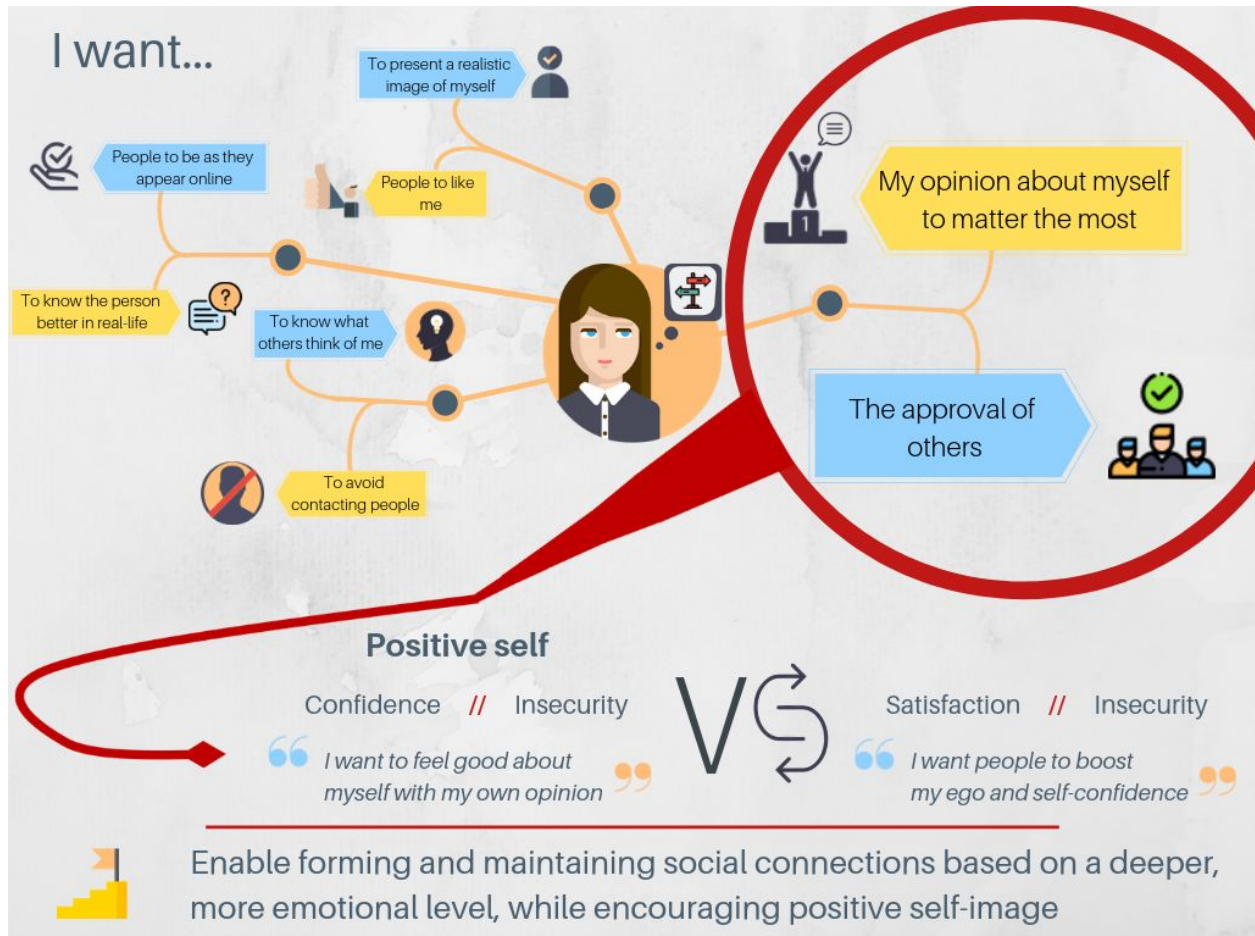
other person doesn't like her/her appearance or whether there was anything wrong with her picture.

Issue: not liking the picture someone sends you. How to react?

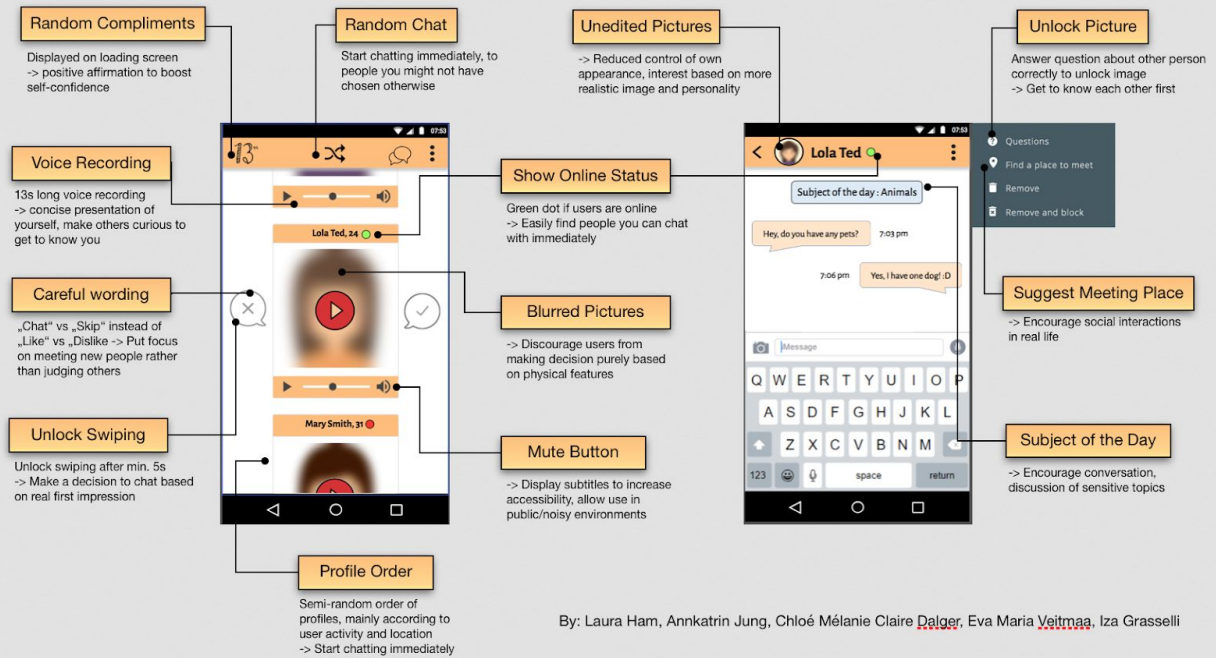
Possible solution:

Automatically generated positive reinforcement message after taking a picture (the app shows a first-person sentence as a stamp overlay on the picture, i.e. "I am perfect!")

Appendix 5 - Concept Boards



13" Why - Design Features



By: Laura Ham, Annkatrin Jung, Chloé Mélanie Claire Dalger, Eva Maria Veitmaa, Iza Grasselli

Appendix 6 - Emotion Capture Cards

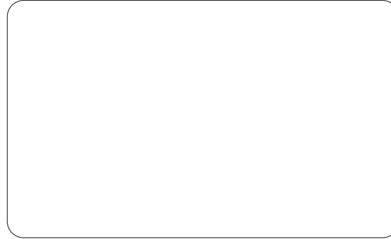
Reference: Ozkaramanli, D., Fokkinga, S. F., Desmet, P. M. A., Balkan, E., & George, E. (2013). Recreating AlaTurca; consumer goal conflicts as a creative driver for innovation. In D.S. Fellows (Ed.), Brilliant Transformations: Proceedings of Qualitative Research 2013, Valencia, 17-19 November. Amsterdam (NL): ESOMAR.



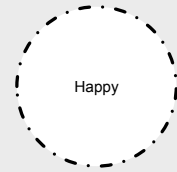
Note down keywords that will help you fill out the rest of the card later

Happy about cuteness of guy presented in picture

Place a relevant image below



Card #: 1



What happened? (objectively explain the event that evoked the emotion)

She saw a cute picture of a guy

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to have a person to present himself in a picture so that I get touched by it and it will be a potential match

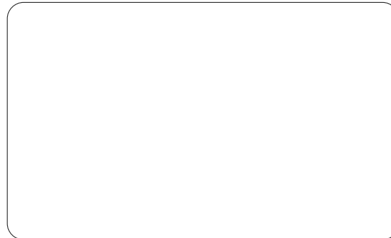
Reference: Ozkaramanli, D., Fokkinga, S. F., Desmet, P. M. A., Balkan, E., & George, E. (2013). Recreating AlaTurca; consumer goal conflicts as a creative driver for innovation. In D.S. Fellows (Ed.), Brilliant Transformations: Proceedings of Qualitative Research 2013, Valencia, 17-19 November. Amsterdam (NL): ESOMAR.



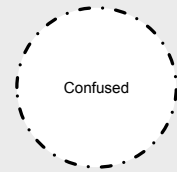
Note down keywords that will help you fill out the rest of the card later

Confused
"What is on the picture?"

Place a relevant image below



Card #: 2



What happened? (objectively explain the event that evoked the emotion)

She didn't understand what was on the picture

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to be sure that the potential match looks nice



Note down keywords that will help you fill out the rest of the card later

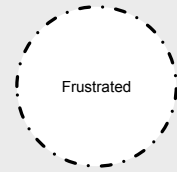
Unclear picture

Tries to zoom in but impossible

Place a relevant image below



Card #: 3



What happened? (objectively explain the event that evoked the emotion)

Could not zoom in on the picture

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

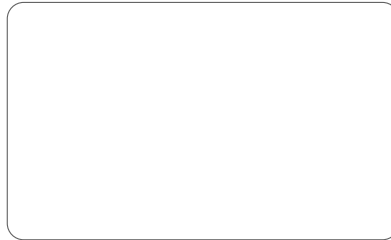
I want to get all the information I can



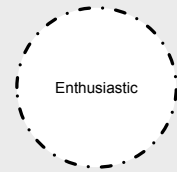
Note down keywords that will help you fill out the rest of the card later

Laughs out loud when looking at a few new pictures

Place a relevant image below



Card #: 4



What happened? (objectively explain the event that evoked the emotion)

She saw a funny picture of a guy and laughed out loud

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

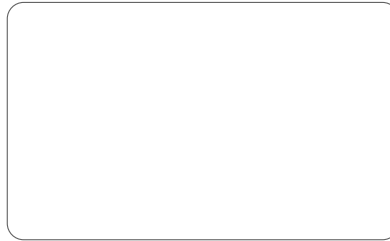
I want to be triggered by interesting and funny pictures



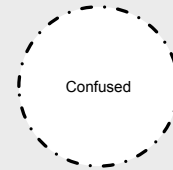
Note down keywords that will help you fill out the rest of the card later

Confused about location

Place a relevant image below



Card #: 5



What happened? (objectively explain the event that evoked the emotion)

She did not understand why she saw guys from Utrecht (which is quite far away from Enschede where we conducted the interview) appearing in the list

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to meet someone who matches my criteria of physical location



Note down keywords that will help you fill out the rest of the card later

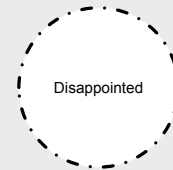
Short description

Includes "passionate", does not know what it means. Not sure if she likes it or not, she seems puzzled and disappointed. There is a contradiction, because the pictures looked nice.

Place a relevant image below



Card #: 6



What happened? (objectively explain the event that evoked the emotion)

Description was too short and rather vague, but the pictures of the girl were nice

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to know if someone is serious about dating.



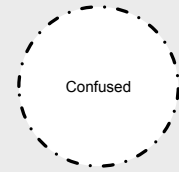
Note down keywords that will help you fill out the rest of the card later

Confused when reading full profile because facts contradict

Place a relevant image below



Card #: 7



What happened? (objectively explain the event that evoked the emotion)

She was reading a full profile of a potential match and found contradictory facts

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

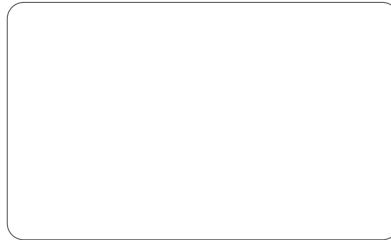
I want to get a clear total view of other people



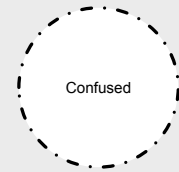
Note down keywords that will help you fill out the rest of the card later

Description is not interesting but picture is nice -> don't know how to start conversation

Place a relevant image below



Card #: 8



What happened? (objectively explain the event that evoked the emotion)

She didn't know whether and how to start a conversation, because the pictures were nice but she usually looks at description to start a conversation and this was not interesting

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to find someone who fits my preferences and/or expectations 100%



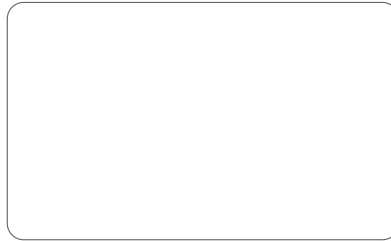
Note down keywords that will help you fill out the rest of the card later

Looks for perfect guy but she knows he

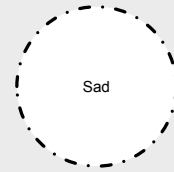
does not exists

Looks depressed and swipes hopelessly through pictures

Place a relevant image below



Card #: 9



What happened? (objectively explain the event that evoked the emotion)

After a lot of dislikes she says she's maybe too picky

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to fine someone who fits my expectations 100%

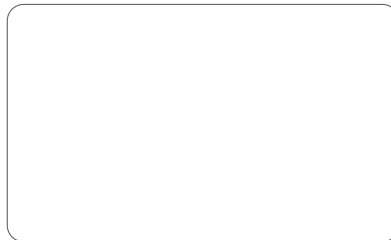


Note down keywords that will help you fill out the rest of the card later

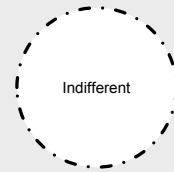
'brainless' swiping

Not full attention on the liking/judging procedure

Place a relevant image below



Card #: 10



What happened? (objectively explain the event that evoked the emotion)

She kept giving dislikes because het attention was not fully on the application

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to have an engaging experience



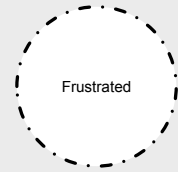
Note down keywords that will help you fill out the rest of the card later

Tapping 'X' before thinking because 'her finger is just there'

Place a relevant image below



Card #: 11



What happened? (objectively explain the event that evoked the emotion)

She pressed the dislike button multiple times before even looking good at the pictures. She may have liked this person but it was too late

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

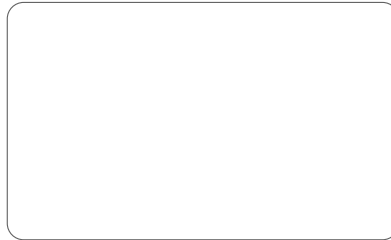
I want to have an engaging experience



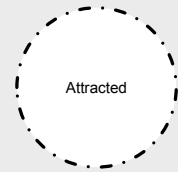
Note down keywords that will help you fill out the rest of the card later

'I like descriptions that are to the point'

Place a relevant image below



Card #: 12



What happened? (objectively explain the event that evoked the emotion)

She mentions that the description was to the point but still very rich of information

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to find a person who has similar interests



Note down keywords that will help you fill out the rest of the card later

Match => happy, self-valuation

Place a relevant image below



Card #: 13

Disappointed

What happened? (objectively explain the event that evoked the emotion)

She gets a pop-up that a match has been made

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

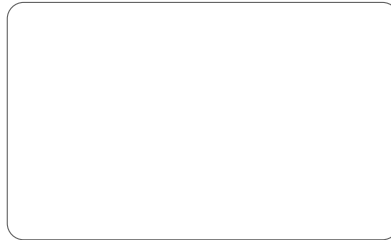
I want to feel self-confident and valued.



Note down keywords that will help you fill out the rest of the card later

Bored because conversation started with 'hey'

Place a relevant image below



Card #: 14

Bored

What happened? (objectively explain the event that evoked the emotion)

The other person started a conversation with "hey :)", and she immediately feels bored because it does not give her an incentive to respon

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

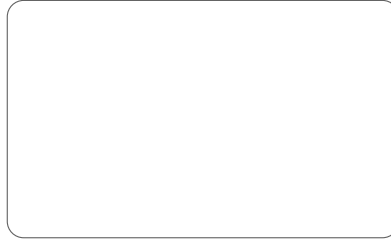
I want to get to know the other person better by means of chatting



Note down keywords that will help you fill out the rest of the card later

Others don't start conversation often,
because lot of matches

Place a relevant image below



Card #: 15

Disappointed

What happened? (objectively explain the event that evoked the emotion)

She usually has to start a conversation

because others don't

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

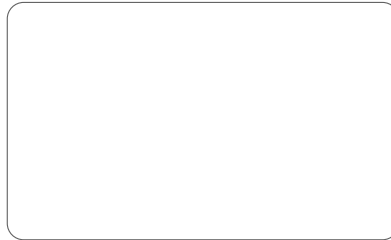
I want to have more incentive to start a
conversation



Note down keywords that will help you fill out the rest of the card later

Have to write something before delete
match

Place a relevant image below



Card #: 16

Frustrated

What happened? (objectively explain the event that evoked the emotion)

Didn't like how the other person started the
conversation and wanted to delete this chat
and match, but needed to write something
back before this is possible

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to be in control when using the
application (have free will)



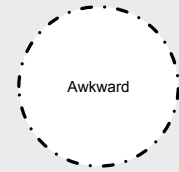
Note down keywords that will help you fill out the rest of the card later

Awkward match when knows person in real life

Place a relevant image below



Card #: 17



What happened? (objectively explain the event that evoked the emotion)

She mentions that seeing person on Tinder she knows in real life makes her feel uncomfortable and awkward. She wants to be anonymous and meet new people

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

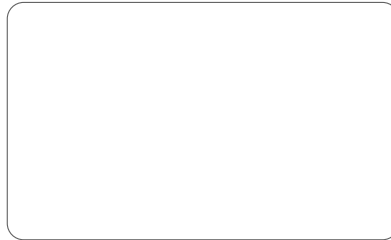
I want to conform to social norms



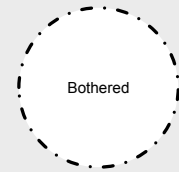
Note down keywords that will help you fill out the rest of the card later

Scrolls down a long time to find perfect picture in camera roll
Bothers her clearly

Place a relevant image below



Card #: 18



What happened? (objectively explain the event that evoked the emotion)

She was looking for a new picture for her profile, but had to scroll down a long time to find pictures suitable to put on Tinder

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

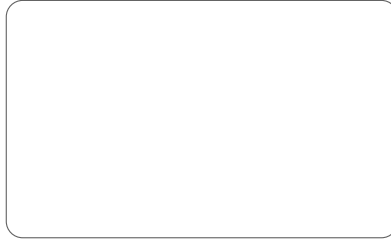
I want to represent myself on Tinder as my true self



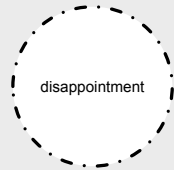
Note down keywords that will help you fill out the rest of the card later

disappointment
remembered that guy was tiny

Place a relevant image below



Card #: 19



What happened? (objectively explain the event that evoked the emotion)

looking at profile she knew from before, when she had previously downloaded the app

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

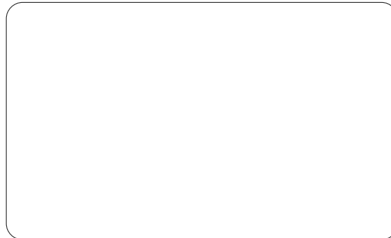
I want to be with someone who fits my physical preference



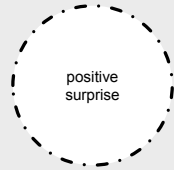
Note down keywords that will help you fill out the rest of the card later

surprise, happy
found a match

Place a relevant image below



Card #: 20



What happened? (objectively explain the event that evoked the emotion)

got a match notification

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to meet new people

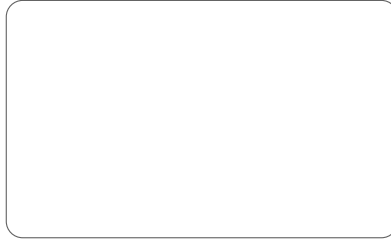


Note down keywords that will help you fill out the rest of the card later

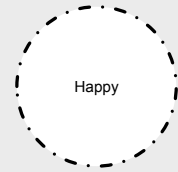
happy

saw a fluffy dog on profile

Place a relevant image below



Card #: 21



What happened? (objectively explain the event that evoked the emotion)

She saw a picture she liked on someone's profile

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to see interesting pictures

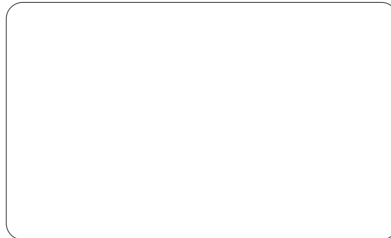


Note down keywords that will help you fill out the rest of the card later

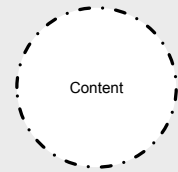
her friend approved of a guy

"good enough"

Place a relevant image below



Card #: 22



What happened? (objectively explain the event that evoked the emotion)

She asked her friend who was sitting next to her for her opinion on a profile

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

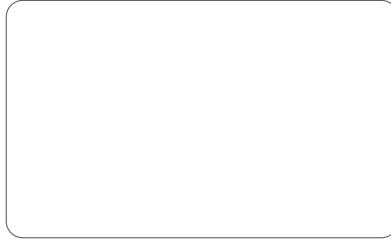
I want my partner to fit into my social circle



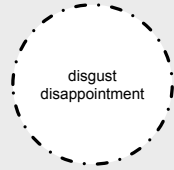
Note down keywords that will help you fill out the rest of the card later

disgust?
not excited about guy
matched with him but he's boring

Place a relevant image below



Card #: 23



What happened? (objectively explain the event that evoked the emotion)

she found a guy she had talked to before on the app, but she found him boring

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

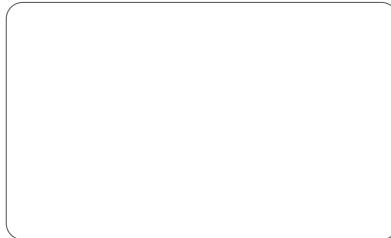
I want to meet people who enrich me



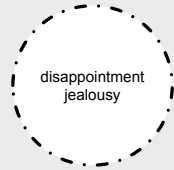
Note down keywords that will help you fill out the rest of the card later

disappointment
"why do you get all the smart people?"

Place a relevant image below



Card #: 24



What happened? (objectively explain the event that evoked the emotion)

her friend, who was sitting next to her, showed her a profile and asked for her opinion

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to find someone who is like me

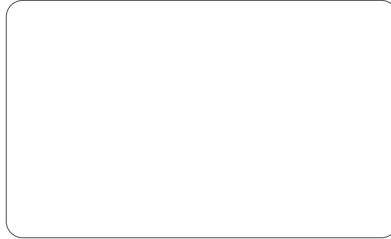


Note down keywords that will help you fill out the rest of the card later

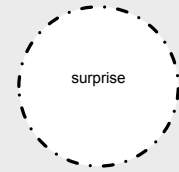
surprised about match

almost scared

Place a relevant image below



Card #: 25



What happened? (objectively explain the event that evoked the emotion)

she got a sudden pop-up with a match

notification

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to have a good flow when using the app

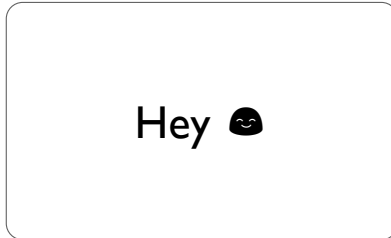


Note down keywords that will help you fill out the rest of the card later

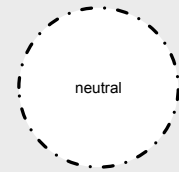
always sends the same message to

everyone

Place a relevant image below



Card #: 26



What happened? (objectively explain the event that evoked the emotion)

She often initiates conversation with matches,

and sends the same message to everyone

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

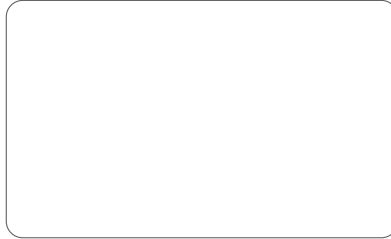
I want to be the dominant one in the relationship



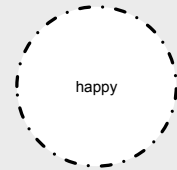
Note down keywords that will help you fill out the rest of the card later

guy sends emoji
makes her really happy

Place a relevant image below



Card #: 27



What happened? (objectively explain the event that evoked the emotion)

She received a message from a match which contained an emoji

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

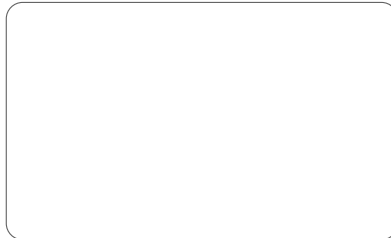
I want to know what the other person is really like



Note down keywords that will help you fill out the rest of the card later

feels cheap/disappointed if a guy sends the same message to everyone

Place a relevant image below



Card #: 28



What happened? (objectively explain the event that evoked the emotion)

received a generic message from a guy
interviewer asked about how she feels when guys send basic messages

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

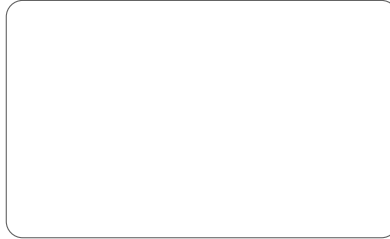
I want to feel special and appreciated



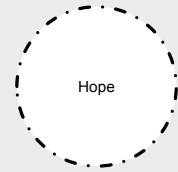
Note down keywords that will help you fill out the rest of the card later

feels like she has to send the first message
because guys don't do it
then hopes for an answer

Place a relevant image below



Card #: 29



What happened? (objectively explain the event that evoked the emotion)

She got a match and sent the first message,
then explained why she does it and how she
usually feels about it

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

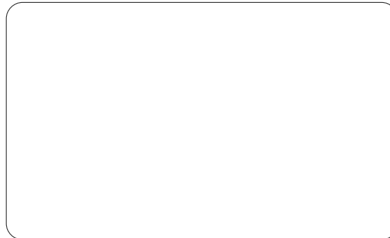
I want to get to know new people by chatting



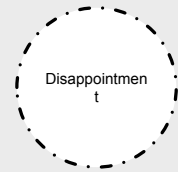
Note down keywords that will help you fill out the rest of the card later

disappointment
swipes in the evening, but no matches in
the morning

Place a relevant image below



Card #: 30



What happened? (objectively explain the event that evoked the emotion)

Explains how she usually uses the app: she
swipes on a lot of guys in the evening, and
then goes through her matches the next
morning

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

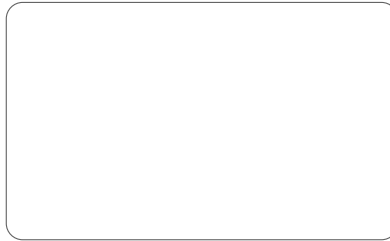
I want to feel validated



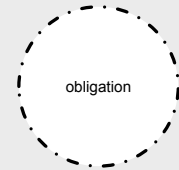
Note down keywords that will help you fill out the rest of the card later

felt like she had to add new pic when
re-downloading the app

Place a relevant image below



Card #: 31



What happened? (objectively explain the event that evoked the emotion)

She tends to delete and re-download the app regularly, and the last time she downloaded the app she added a new profile picture because she felt like she had to

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to find somebody with the highest compatibility



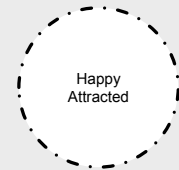
Note down keywords that will help you fill out the rest of the card later

found a cute guy
likes his curly hair

Place a relevant image below



Card #: 32



What happened? (objectively explain the event that evoked the emotion)

She found a profile she liked and went through the pictures

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

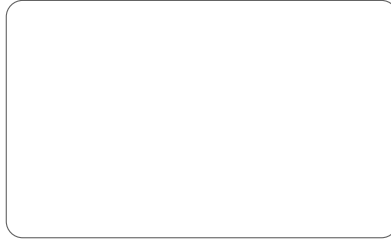
I want to meet people who fit my physical criteria



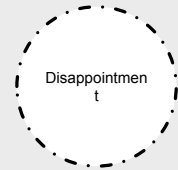
Note down keywords that will help you fill out the rest of the card later

disappointment
guy doesn't have his height listed on his profile

Place a relevant image below



Card #: 33



What happened? (objectively explain the event that evoked the emotion)

She was looking at a profile and the guy didn't have his height listed

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

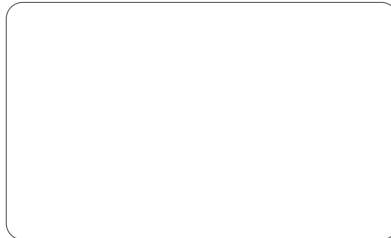
I want to meet someone who meets my physical preferences



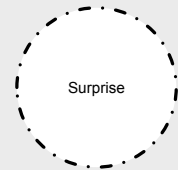
Note down keywords that will help you fill out the rest of the card later

shock
friend didn't have description

Place a relevant image below



Card #: 34



What happened? (objectively explain the event that evoked the emotion)

Her friend re-downloaded the app and told her that she doesn't have a description on her profile

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

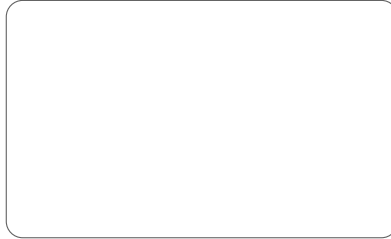
I want to have a good overview of a potential partner



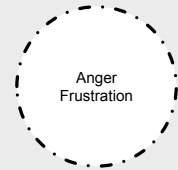
Note down keywords that will help you fill out the rest of the card later

anger
hates that app doesn't get distance right

Place a relevant image below



Card #: 35



What happened? (objectively explain the event that evoked the emotion)

Tinder does not always stick to the distance you choose in your profile. Sometimes it shows people from further away, for example when you have travelled recently

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

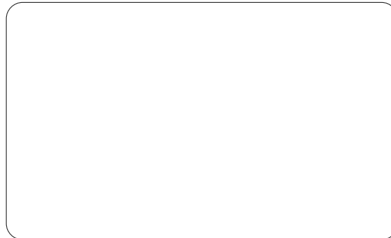
I want to meet people who match my location criteria



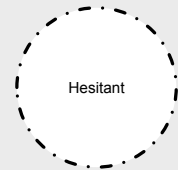
Note down keywords that will help you fill out the rest of the card later

unsure
asking friend for her opinion
too eccentric?

Place a relevant image below



Card #: 36



What happened? (objectively explain the event that evoked the emotion)

She is not sure whether she likes a profile and is asking her friend for her opinion

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

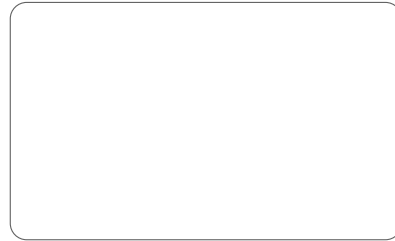
I want to make the right decision according to social norms



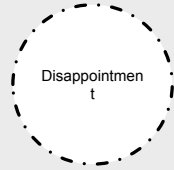
Note down keywords that will help you fill out the rest of the card later

swipes on guys she matched with before

Place a relevant image below



Card #: 37



What happened? (objectively explain the event that evoked the emotion)

She regularly deletes and re-downloads the app. Because of this, she sometimes sees profiles she has seen before

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

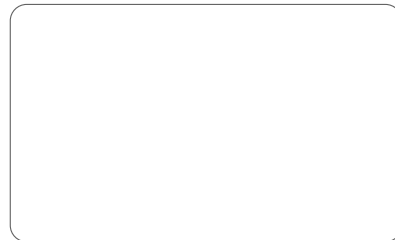
I want to meet new people



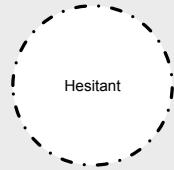
Note down keywords that will help you fill out the rest of the card later

changed age range to avoid 18-year olds

Place a relevant image below



Card #: 38



What happened? (objectively explain the event that evoked the emotion)

She matched with a guy and realised only later that he was only 18 years old

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to find people who match my age preference

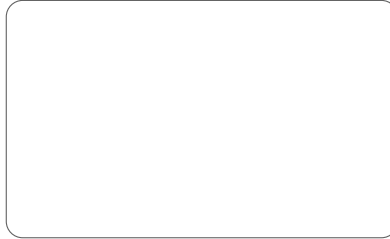


Note down keywords that will help you fill out the rest of the card later

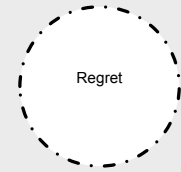
"should've looked at age"

regret?

Place a relevant image below



Card #: 39



What happened? (objectively explain the event that evoked the emotion)

She matched with a profile, and realised later that the guy was only 18 years old

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to find people who match my age preference

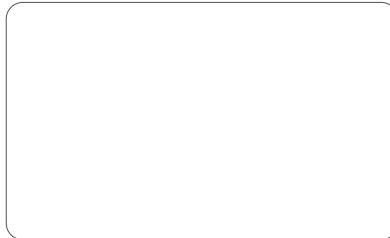


Note down keywords that will help you fill out the rest of the card later

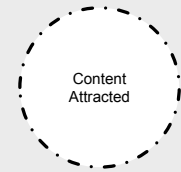
"he's pretty"

likes Oktoberfest, goes out with friends

Place a relevant image below



Card #: 40



What happened? (objectively explain the event that evoked the emotion)

She found a profile she likes

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

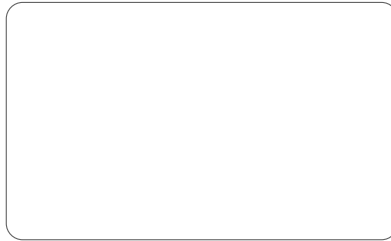
I want to be with someone who is socially compatible



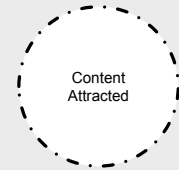
Note down keywords that will help you fill out the rest of the card later

new profile
just pictures
sporty, educated, attractive

Place a relevant image below



Card #: 41



What happened? (objectively explain the event that evoked the emotion)

She is looking at profiles and found someone she likes

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

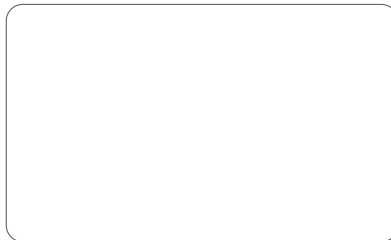
I want to find someone who fits my selection criteria



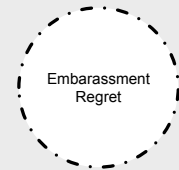
Note down keywords that will help you fill out the rest of the card later

amused
"I should really reply sometimes"

Place a relevant image below



Card #: 42



What happened? (objectively explain the event that evoked the emotion)

She looked at her messages and noticed that she rarely replies to other people

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

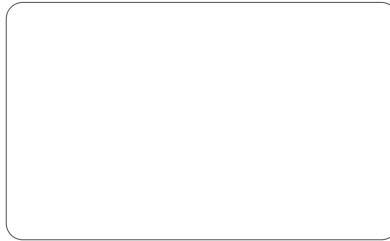
I want to stay engaged in conversations



Note down keywords that will help you fill out the rest of the card later

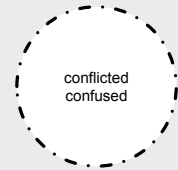
doesn't want to add picture with a dog
because she doesn't like dogs
but it is a good picture

Place a relevant image below



Card #: 43

Conflicted
unsure



What happened? (objectively explain the event that evoked the emotion)

She was debating which picture she wants to upload. She really liked a picture with a dog, but she doesn't actually like dogs and doesn't want people to think that she likes dogs.

Why was it important? (explain the user goal / need / value behind the emotion - why did the person feel this way? Why was this important?)

I want to give an honest overview to find somebody with whom the compatibility is the best

FRAMEWORK OF DILEMMAS FOR DESIGNERS

goal title A

Why is choosing A important for this person?
(tip: get help from Ford’s goal taxonomy at the back of this sheet)

goal A

How can you formulate a concern statement for goal A?
(tip: Formulate this as an “I want to …” sentence)

mixed emotions A

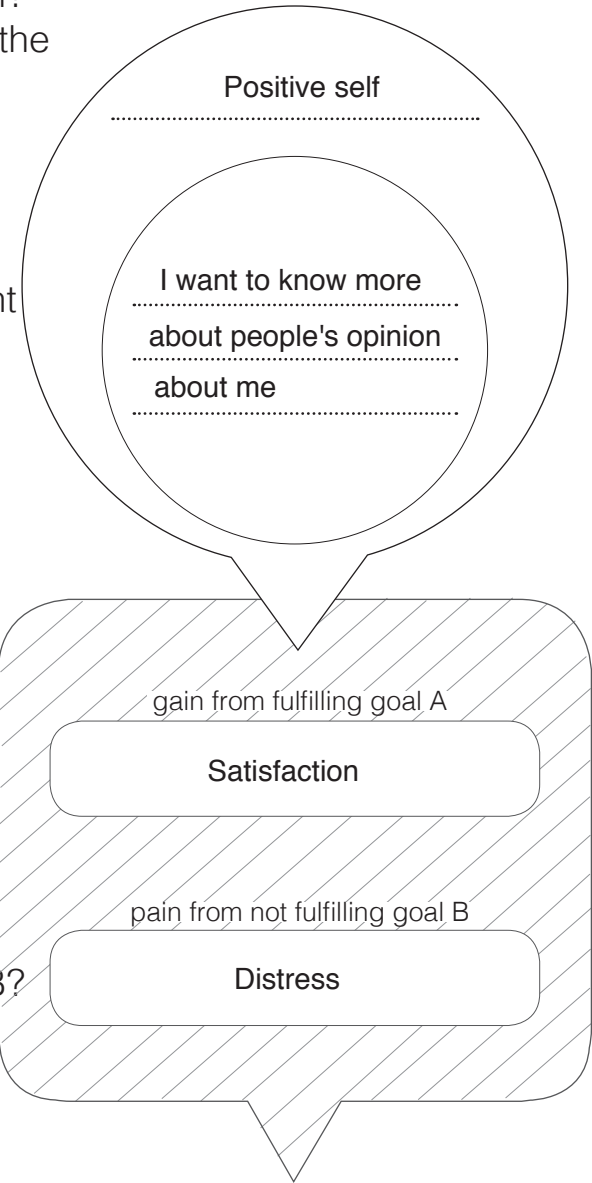
Which positive emotion would the person experience due to the fulfilment of goal A?

Which negative emotion would the person experience due to the unfulfilment of goal B?

choice A

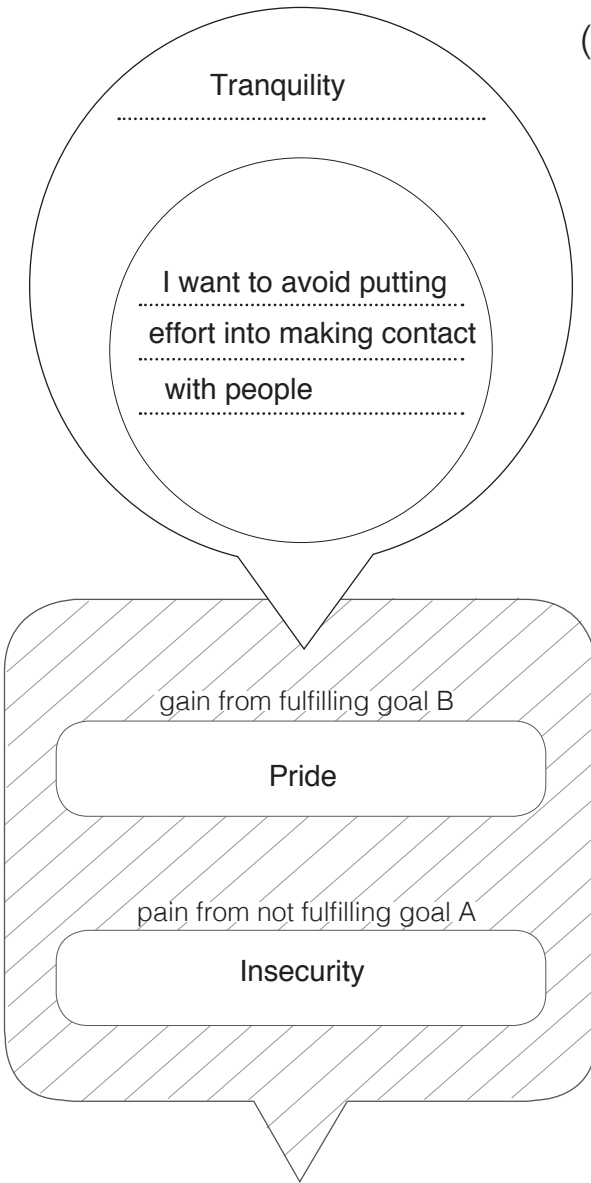
What would the person do to fulfill goal A?

A



Start a conversation

B



Avoid messaging and meeting people

goal title B

Why is choosing A important for this person?
(tip: get help from Ford’s goal taxonomy at the back of this sheet)

goal B

How can you formulate a concern statement for goal B?
(tip: Formulate this as an “I want to …” sentence)

mixed emotions B

Which positive emotion would the person experience due to the fulfilment of goal B?

Which negative emotion would the person experience due to the unfulfilment of goal A?

choice B

What would the person do to fulfill goal B?



FRAMEWORK OF DILEMMAS FOR DESIGNERS

goal title A

Why is choosing A important for this person?
(tip: get help from Ford's goal taxonomy at the back of this sheet)

goal A

How can you formulate a concern statement for goal A?
(tip: Formulate this as an “I want to ...” sentence)

mixed emotions A

Which positive emotion would the person experience due to the fulfilment of goal A?

Which negative emotion would the person experience due to the unfulfilment of goal B?

choice A

What would the person do to fulfill goal A?

Choose realistic
pictures +
description



B

goal title B

Why is choosing A important for this person?
(tip: get help from Ford's goal taxonomy at the back of this sheet)

goal B

How can you formulate a concern statement for goal B?
(tip: Formulate this as an “I want to ...” sentence)

mixed emotions B

Which positive emotion would the person experience due to the fulfilment of goal B?

Which negative emotion would the person experience due to the unfulfilment of goal A?

choice B

What would the person do to fulfill goal B?

FRAMEWORK OF DILEMMAS FOR DESIGNERS

goal title A

Why is choosing A important for this person?
(tip: get help from Ford's goal taxonomy at the back of this sheet)

goal A

How can you formulate a concern statement for goal A?
(tip: Formulate this as an “I want to ...” sentence)

mixed emotions A

Which positive emotion would the person experience due to the fulfilment of goal A?

Which negative emotion would the person experience due to the unfulfilment of goal B?

choice A

What would the person do to fulfill goal A?

Agree/propose to meet in real life



B

goal title B

Why is choosing A important for this person?
(tip: get help from Ford's goal taxonomy at the back of this sheet)

goal B

How can you formulate a concern statement
for goal B?
(tip: Formulate this as an “I want to ...”
sentence)

mixed emotions B

Which positive emotion would the person experience due to the fulfilment of goal B?

Which negative emotion would the person experience due to the unfulfilment of goal A?

choice B

Don't meet in real life, keep it online only What would the person do to fulfill goal B?

FRAMEWORK OF DILEMMAS FOR DESIGNERS

goal title A

Why is choosing A important for this person?
(tip: get help from Ford’s goal taxonomy at the back of this sheet)

goal A

How can you formulate a concern statement for goal A?
(tip: Formulate this as an “I want to …” sentence)

mixed emotions A

Which positive emotion would the person experience due to the fulfilment of goal A?

Which negative emotion would the person experience due to the unfulfilment of goal B?

choice A

What would the person do to fulfill goal A?

A



Start a conversation

B



Avoid messaging and meeting people

goal title B

Why is choosing A important for this person?
(tip: get help from Ford’s goal taxonomy at the back of this sheet)

goal B

How can you formulate a concern statement for goal B?
(tip: Formulate this as an “I want to …” sentence)

mixed emotions B

Which positive emotion would the person experience due to the fulfilment of goal B?

Which negative emotion would the person experience due to the unfulfilment of goal A?

choice B

What would the person do to fulfill goal B?

