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GROUP 8.



Mission Journal:
PillowTalk



Terminal 1

Terminal 2

ABC

DE

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For other flight departures see flight information monitors

Abflüge werden nicht ausgerufen
Departures will not be announced

THE MORNING OF AUGUST 29,

INTRODUCTION - DESIGN BRIEF.

Headquarters has appointed you a new mission.

In an exercise of speculation, we imagine a world where people have become more private and less open to socialising in the ways that were usual before the COVID pandemic.

These changes will impact different dimensions of people's lives:

- (a) their home configurations
- (b) their workplaces
- (c) their leisure activities.

Design a new technology that could:

- (a) Support introvert practices.
- (b) Support extroverts to navigate in a world where introversion is the new normal.

Make haste, Group 8. You have two months.

Your presence at Discovery City Intl. Airport is requested immediately.

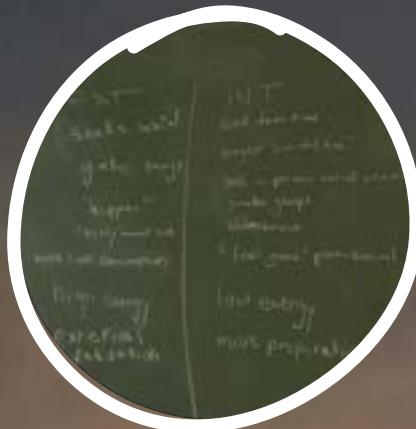
Your flight departs in two hours.

Signed,
The Double Diamond Initiative

Ready for takeoff in

DISCOVERY CITY.

First, we needed to understand who we were designing for.



BRAINSTORMING.

“Who are introverts? Who are extroverts?”
As it turns out, this question is not
easily answered:

We exist on a spectrum of intro- and
extroversion.

But what if we look at a space in which both ends of the spectrum collide?

Where people have no choice other than to interact?

Such as...

...right here?



User group acquired. Target: Airplane passengers.

INTERVIEWS.

Having nailed down our user group, it was time to get to work.

We devised and conducted an interview process aimed at people who had flown in the past year – both introverts AND extroverts.

8 interviews were conducted. Two by each team member.

- 1 Ask some warm-up questions to get the conversation flowing.
- 2 Get the interviewee to define their own level of intro/- extroversion.
- 3 Gather information about traveling behaviors.
- 4 Find out what drives or prevents social interaction during flights.
- 5 Use the laddering technique to determine user needs in regards to social interaction while traveling by plane.

Interviews followed a detailed script. Excerpt.

DM2601 Media Technology and Interaction Design

Akshata, Emile, Malin, Markus

Introduction to the project

These interviews are a part of a project from the course, Media Technology and Interaction Design, at KTH and is a part of reaching the goal of exploring different process models in interaction design. The design brief of the project has the theme of *Designing for a World of Introverts*. We have elected to design a tool that will aid with customising the amount of social interactions between introverts and extroverts on an aeroplane and thus are interested in hearing about your experience. You are free to leave the study at any time (and the information you have provided us will be removed shortly after). We will record identifying

NOTABLE "QUOTES."

»It is more relaxing to me to listen to something, to look out the window, rather than having to focus constantly on a conversation.«

»It depends on whether I get the impression that the person would even like to have a conversation with me.«

»Both I and the other person, we need some common background.«

»On short flights, I like to keep to myself. Get over the flight quickly.«

»I'm mostly just tired. When I'm tired, I'm not that eager on having social interaction, I believe.«

»But it's not enjoyable for people around to hear babies screaming and crying.«

»Before the mobile phone era, there was a lot more interaction. Now people usually stick to themselves.«

»Oh my favourite part is when you come in and they say hello. That's enough interaction for me.«

»But also, who knows who's sitting beside you. Maybe it's just curiosity.«

»On short flights I just listen to music to relax and let go of the fear.«

»There was no opportunity.«



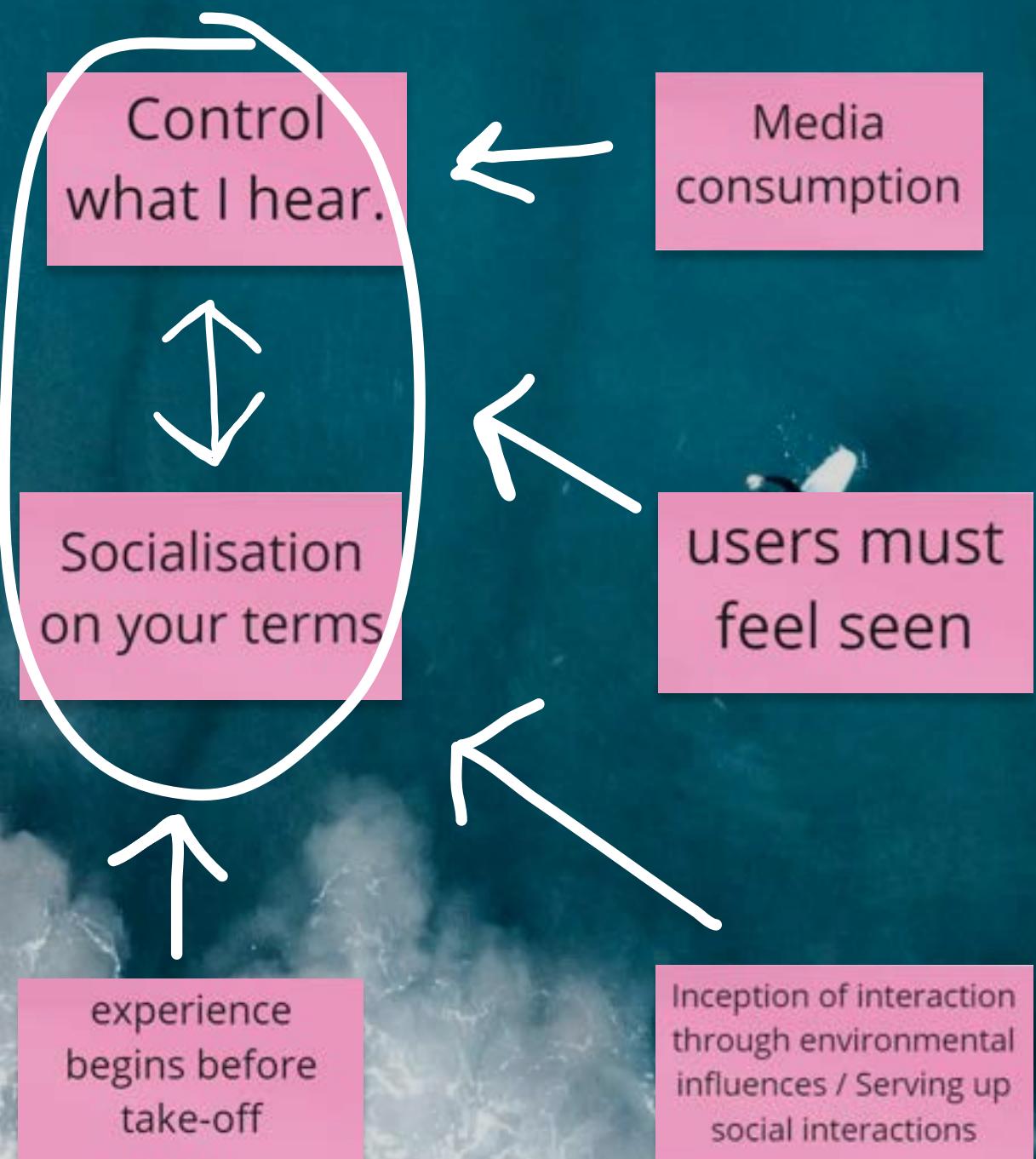
We have now reached our cruising altitude of 20.000 feet over the

DEFINE SEA. ≈

After the interviews, we ended up with a collection of 148 quotes suitable for further processing. To make sense of this ocean of information, we made an AFFINITY DIAGRAM.

KEY RESULTS.

Out of this process, we got 5 potential problem spaces and insights to further consider:



Make sure to stop by for a quick layover on

PROBLEM STATEMENT ISLAND.

With a wide selection of potential spaces to work on, it was time to sit down and define a problem statement that we could tackle in our efforts.

We decided to base it on the following two insights:

Socialisation
on your terms

Control
what I hear.

Airplane passengers need to [communicate on their own terms] so that [the flight is a pleasant experience].

We are now rising again over the famous

DEVELOP DELTA. △

Having found a problem space to investigate, it was now on us to find an idea to pursue. In an effort to maximize our results, we employed the SCAMPER method.

Substitute or change elements in an existing solution.

Combine different elements to form a new solution.

Adapt characteristics of existing components.

Modify the emphasis on different properties.

Put an existing idea to another use.

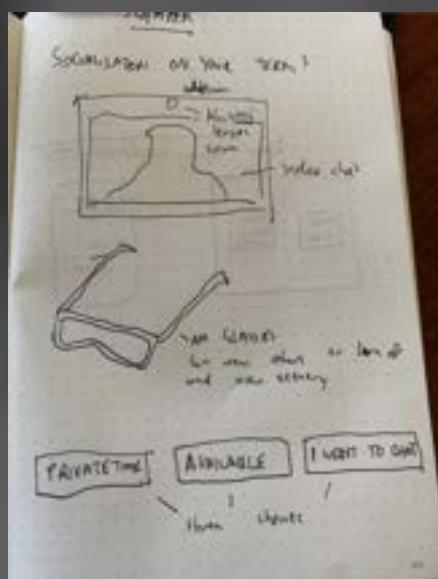
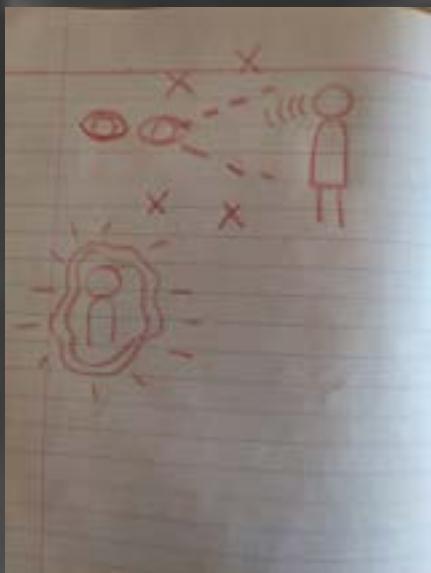
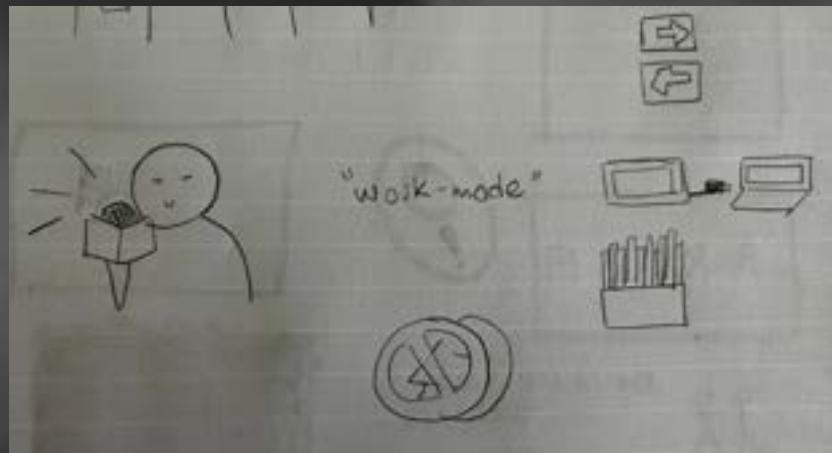
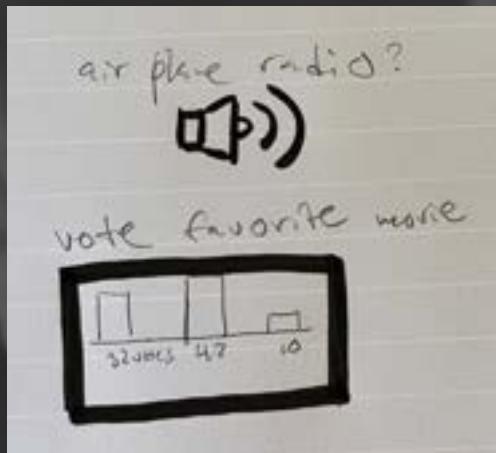
Eliminate elements that do not serve a core function.

Reverse or rearrange your concept.

Miro board with sketches used in the SCAMPER process.



A FEW SKETCHES.

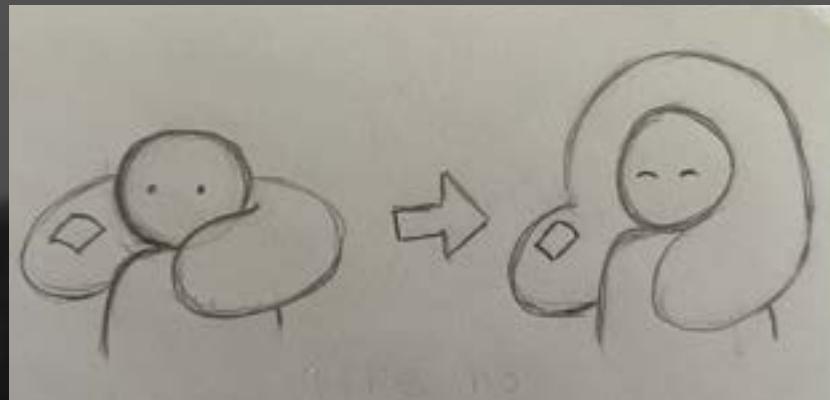


THE CHOSEN ONE.

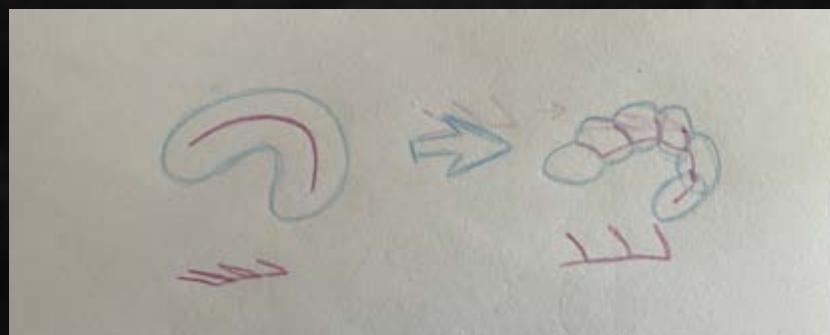
After careful consideration, we came up with a brief description of our main idea:

An unfoldable neck pillow that doubles as noise-cancelling headphones. It includes a microphone and is coupled with the in-flight entertainment system to provide further interactions, such as an in-flight voice chat.

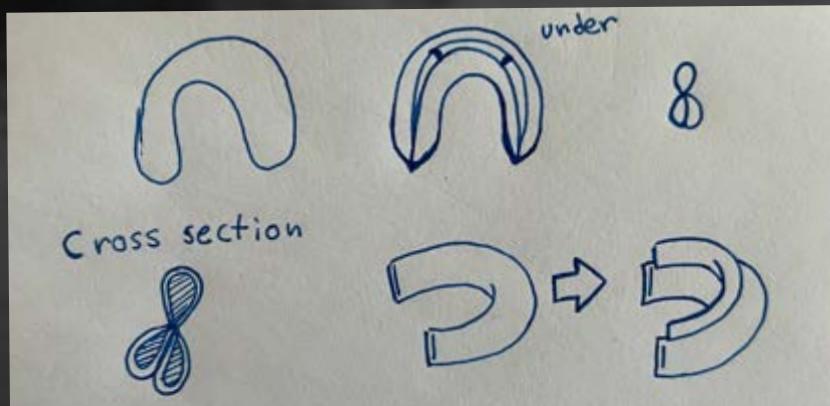
This would both give introverts a way to shut the outside out, but also support extroverts in finding people willing to talk on the same flight.



Initial imagination
as an inflatable
neck pillow.



First concept for
the unfolding
mechanism.



Second concept
for the unfolding
mechanism.

THE TEAM.

Having decided to go for a physical product, a team of renders was assembled to test several properties of our idea:



The Look



The Feel



The Materials



The Colours



The Dimensions

Concept art of different variants of the shape and materials. We envision all flight passengers using it eventually.



PHYSICAL PROTOTYPE.

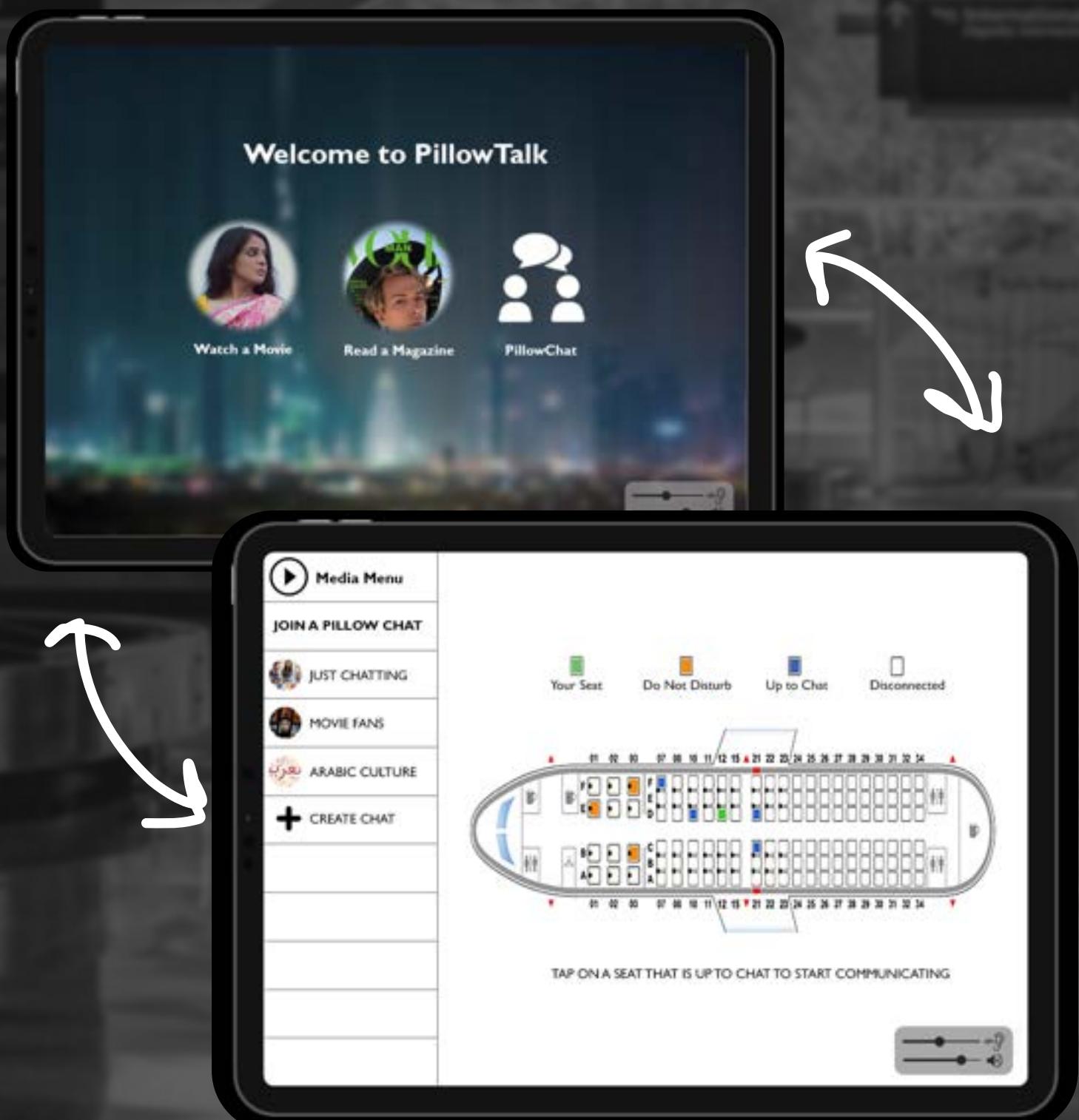
In preparation for an evaluation of our design, we made several prototypes to be used together. The first one was a physical first version of an unfoldable neck pillow.



UX PROTOTYPE.

Furthermore, we prepared a UX prototype in Figma.

A functional voice chat prototype was also in development, but due to time constraints, we discarded it in favor of the Wizard of Oz technique.

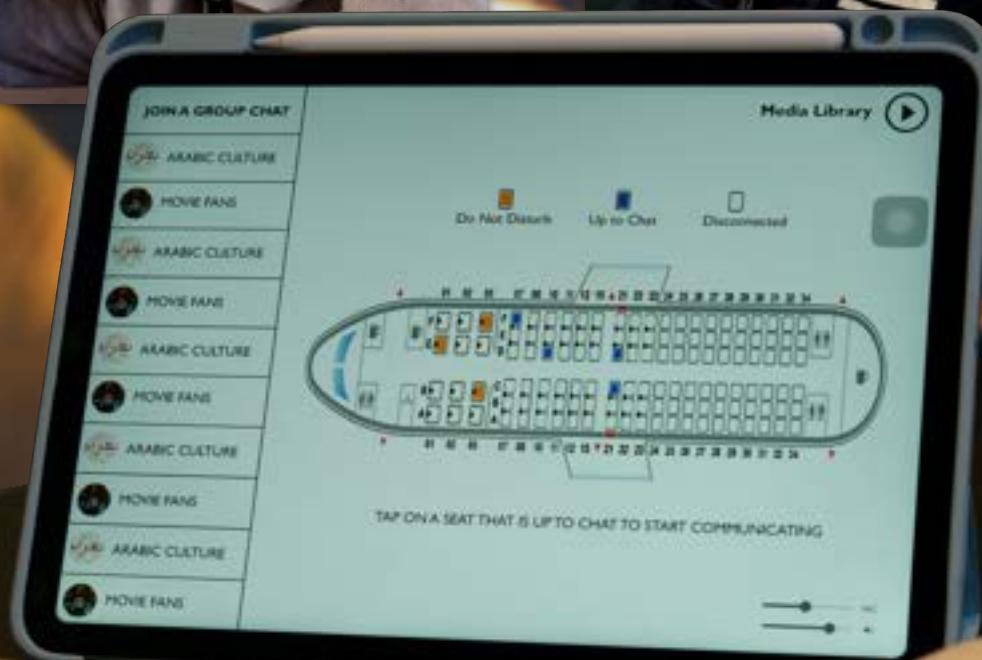


Welcome to

NEW DELIVERABLE CITY

With our prototypes done, it was time to finish up the project by performing some evaluation.

The entire evaluation happened within the scheduled workshop time.



EVALUATION.

For the evaluation, we had participants interact with our physical prototype first, and then had them perform certain actions using the Figma prototype while still wearing the pillow.

Wizard of Oz.

The evaluation used the Wizard of Oz method to simulate both playing music as well as connecting to a voice channel.

The voice channel used was discord and the music was audio provided through youtube.

By connecting the users headphones to a phone both of these were accessible during the evaluation

Observations and thinking aloud.

Participants were encouraged to always state their current thoughts out loud, but we did not require them to do so at all times, to give them some space to process and react to what they are experiencing. We took note of our observations for further processing.



EVALUATION FEEDBACK.



Pressing is a natural action.
Users tried various squeezes in various combinations

users thought pressing ears through pillow would win on noise cancellation.

not very comfortable without looking

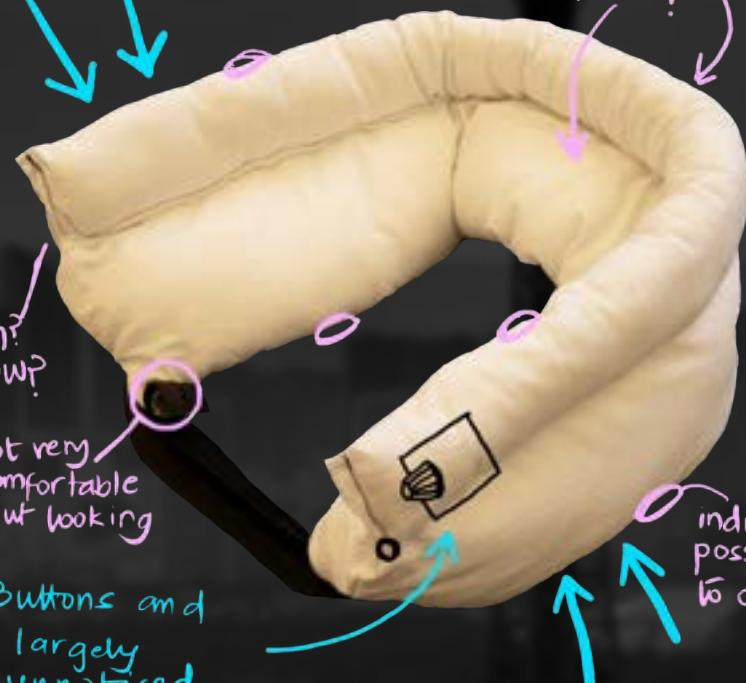
does it open?
How?

Users assumed they did not have to take off the pillow to unfold it.

Buttons and dial largely unnoticed.

up? down?
in? out?

indicate possible to open.

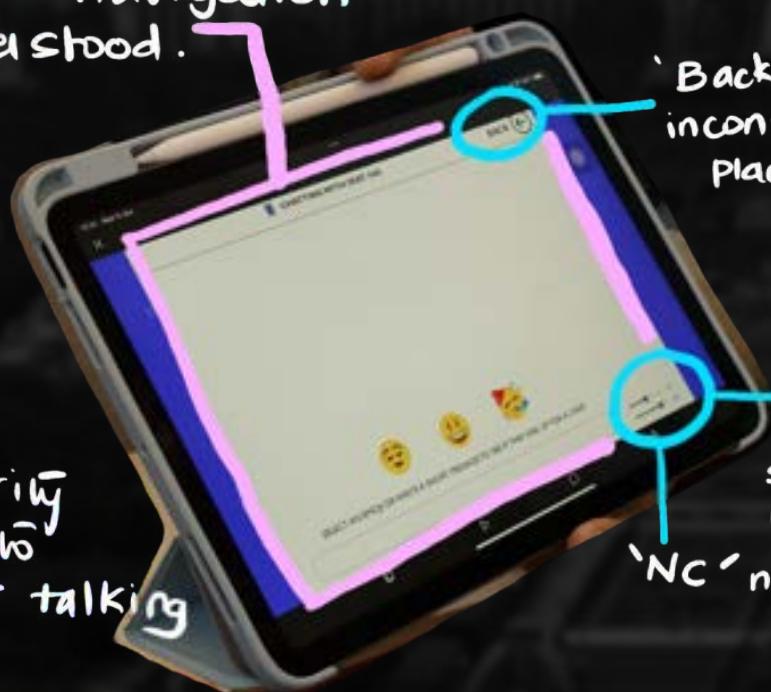


Overall navigation understood.

'Back' button inconveniently placed.

No clarity on how to request talking chat.

Volume and ANC sliders not noticed.
'NC' not understood.



Introducing the
PillowTalk



Channel your inner introvert. Or extrovert. At your own will.

THE LATE EVENING OF OCTOBER 25,

MISSION DEBRIEF.

Group 8.

Your journey has concluded.

Headquarters requests your presence tomorrow, October 26.

Report to your supervisor with your results at 0900.

Signed,
The Double Diamond Initiative