

**DECO3500**



# Improving sleep quality for university students

**Team ATONIA**

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# Team introduction and strengths

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**Team name:** Atonia

The team is composed of students who are passionate about the design process and interaction design field.

## **Team Roles:**

- User researcher: Yanni
- User Interface Designer: Carrie
- Front-end Developer: Shaun
- Meeting note-taker: Eva
- Motivator: Olivia

## **Team common interests:**

- Prototyping
- User researching
- Coding

## **Team strengths:**

- Design thinking skills
- Critical thinking
- Problem-solving
- Task/time management
- Creativity and innovation
- 3D Design
- Graphic design

# Domain/Problem Space

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**Domain:** Improving sleep quality for university students

**Aim:** Changing Users' sleep-related behaviours

## **Domain Description:**

We would like to explore how to use technology to provide personal (user-centred design) support in **cultivating healthy and satisfactory sleep habits** for **university students** who experience sleep problems due to **academic stress, irregular schedules, and excessive technology** use before bedtime. According to the research[1], almost three-quarters of students agree that well sleep is more important than academic success and that good sleep quality the previous night shows more productivity and concentration the next day.

Hence, we aim to cultivate healthy sleeping habits through a customised sleep support system on the digital device to enhance the user experience.

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[1] S. Rodgers, B. Maloney, B. Ploderer, and M. Brereton, "Managing stress, sleep and technologies: an exploratory study of Australian university students," in Proceedings of the 28th Australian Conference on Computer-Human Interaction - OzCHI '16, Launceston, Tasmania, Australia: ACM Press, 2016, pp. 526–530. doi: 10.1145/3010915.3010961.

# Design Opportunities

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01

## **SOCIAL CONCEPT: AWARENESS**

Send notifications for ideal sleep times to cultivate users' good sleeping habits/and remind them of the benefits of that.

02

## **SOCIAL CONCEPT: ACTIVITY TRACES**

Sync user calendar and significant events to explore the impact factors of sleeping.

03

## **MOBILE CONCEPT: PRIVATE**

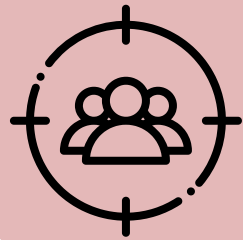
Give users the option of how their data is displayed, enabling personalization.

04

## **MOBILE CONCEPT: CONTEXT-AWARE**

Analyses the user's sleep data, then produces a long-term sleep report to measure sleep quality and any improvements

# Target Audience



## **Audience:**

University students who have sleep issues



## **User's problems:**

Academic stress, worrying about future/assignment

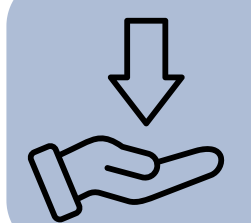
## **User's feelings:**

Anger, self-blame, anxiety, hopelessness, loneliness, homesick



## **User needs:**

(1) Fall asleep in time; (2) Have and keep a fixed sleeping routine. (3) Find motivations to do activities that may enhance their sleep quality.



## **Previous Attempts:**

- **Wearable devices** that help users achieve better sleep quality by promoting their physical activities. Those devices support users to do data-sharing with other users and build networking with their fellows with common interests.

## **Strength:**

- Improving users' sleep patterns
- Fostering a sense of healthy competition by allowing users to compare their scores with other users.
- Creating a valuable networking opportunity for those who share common interests.

## **Improvements:**

- Uncomfortable user experience
- Inconvenient charging system.
- The low motivation of usage when users use it alone

# Plan of Work



Task	Details	Tools/Methods
<b>User interviews</b> (From Week 5)	Interviewee: UQ Students (n=12) <ul style="list-style-type: none"><li>- Exploring their <b>attitudes</b> toward sleep, <b>experiences</b> with sleep disruptions, <b>preferred previous attempts</b> with technology utilization and receptiveness to <b>technology-driven interventions</b>.</li></ul>	Recording/Transcripts
<b>Contextual Inquiry</b> (From Week 6)	Participants: UQ Students (n=15) <ul style="list-style-type: none"><li>- Participants will <b>journalize</b> their bedtime routines, their feelings of waking up, sleep habits, and daily physical condition and moods</li></ul>	Digital Notes
<b>Prototyping/Coding</b> (Before the contact session of Week 9)	<ul style="list-style-type: none"><li>- Using the <b>user-centred design approach</b></li><li>- <b>Researching, discussing and iterating</b> the design of the prototype ( we will have meeting twice a week (additional working time – 4 hours ))</li></ul>	Figma/Github
<b>User Evaluation</b> (Before and after the contact session of Week 11)	<ul style="list-style-type: none"><li>- Organize at least 3 <b>testing sessions</b> with target users</li><li>- <b>Iterating</b> the prototype according to their feedback</li></ul>	Thinking Aloud Method Heuristic evaluation Method
<b>Final Submission</b>	<ul style="list-style-type: none"><li>- <b>Show</b> the prototype in Week 13 Tradeshow</li></ul>	With supporting promotional material

# Thank you!

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**If you have any questions, please feel free to ask us!**

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