



Arkitektur- og designhøgskolen i Oslo  
The Oslo School of Architecture and Design

## DIPLOMA PROGRAM FALL 2017

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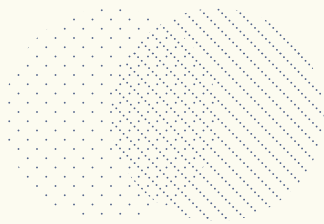
External supervisor: Charlotte Lunde

Company cooperation:

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Title of project: Digital mindfulness

Type of project: Service design & Interaction design



# digital mindfulness

exploring meditation techniques as  
instrument for prevention and treatment of  
emotional disorders in children

*An interaction & service design diploma  
Oslo School of Architecture and Design*

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Candidates  
**Sofie A. Thomassen**  
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Supervisors  
**Mosse Sjaastad**  
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Collaboration  
**Charlotte Lunde**  
Psychiatrist specialized on children

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# 01

## introduction

In Norway, mental disorders are a major health problem in children and adolescents, according to the Norwegian institute of public health.

They estimate that 15 to 20% of children between 3 and 18 years have reduced function due to symptoms of mental disorders such as anxiety, depression and behavior disorders; Half of these (about 70,000 children) will have such severe symptoms that they meet the requirements for a psychiatric diagnosis that requires treatment.

Our approach on this diploma is a cross disciplinary work between service and interaction design. Where we will explore how digital interfaces and meditation techniques can be used as an instrument in prevention and treatment of emotional disorders (such as stress, anxiety and depression); experienced by adolescents between ages 12 to 18 and in collaboration with professionals.

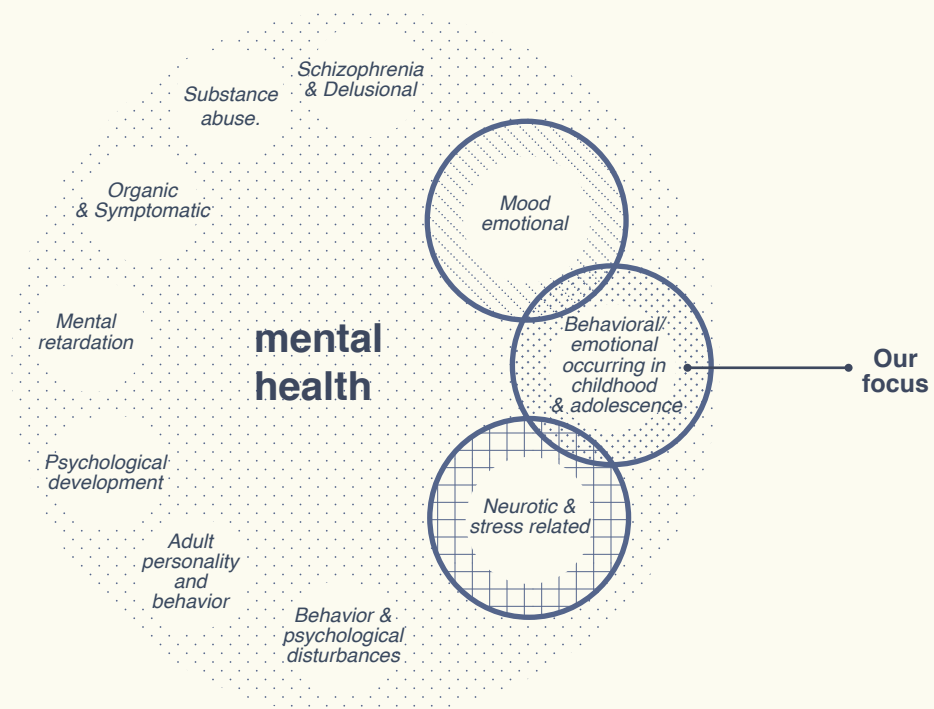
# 02

## background

### *Mental Health*

The World Health Organization defines mental health as a level of psychological well-being (or absence of mental disorder), in which an individual can realize his or her own potential, cope with the normal stress of life, work productively and make a contribution to the community. (Strengthening mental health promotion, Fact sheet No 220, WHO, 2001 )

Mental disorders consist of a broad range of conditions with different symptoms. However, these conditions are generally characterized by alterations in thinking, emotions, mood or behavior, relationships with others and/or impaired functioning.

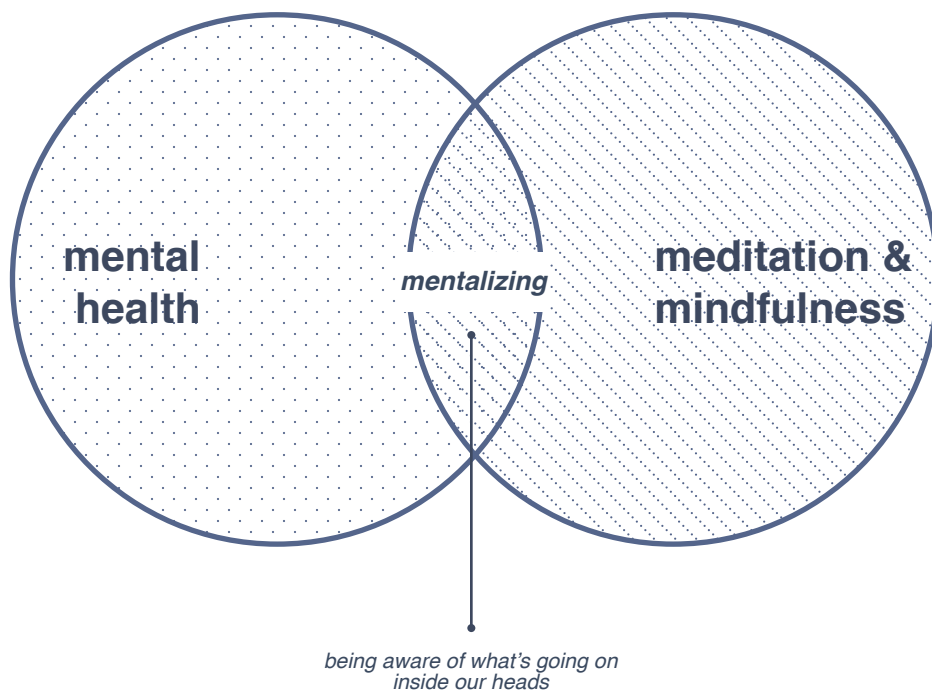


## 02

### *Meditation in mental health*

There are different options to treat mental disorders; these depend on the severity of the illness, and can range from therapy treatments to psychiatric medications.

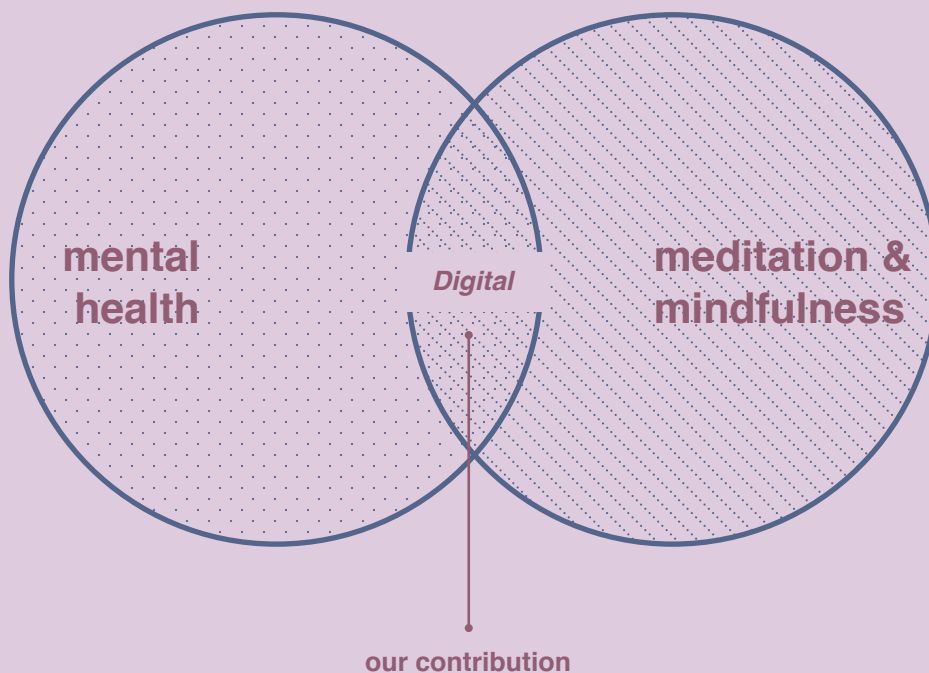
In addition, alternative techniques like meditation and mindfulness have proved to be efficient in mild cases of depression; in fact, mindfulness therapies have a strong similarity to a well known method called Cognitive Behavioral Therapy (CBT). The act of mentalizing focuses on being aware of what's going on inside our heads, in order to work with our thoughts and feelings differently.



## 03

### the project

In this diploma we will explore how meditation techniques can be used as a tool/instrument for prevention and treatment of emotional disorders (such as stress, anxiety and depression) experienced by adolescents between ages 12 to 18.





### *Context*

We want to work in the context of use during treatment. How a digital interface can be used in the interaction between therapist and patient, patients on their own and together with parents/carers during treatment and after treatment(prevention of relapses).

We chose to narrow the scope of project to treatment situations, since we think that this can be a big opportunity for the digital platform/interface, to have a stronger foundation and greater impact when it comes to a possible future implementation made and used by experts in a real situation. We chose to avoid the commercial market initially, but we will not exclude this as it could be part of a more holistic future plan.

### *Challenges*

As we are diving into a topic that touches upon personal and emotional experiences from patients, this can represent a challenge further on in the project as the threshold for people to share, might be too high.

We are aware of the obstacle this represents and therefore, we will need to design appropriate strategies and tools to lower this threshold and make patients comfortable to talk and share, in order to gain a better understanding of their needs and insights. In addition, we are in touch with experts that can provide us with their knowledge in the field, as well as the possibility to get us in touch with potential users for research and testing purposes.

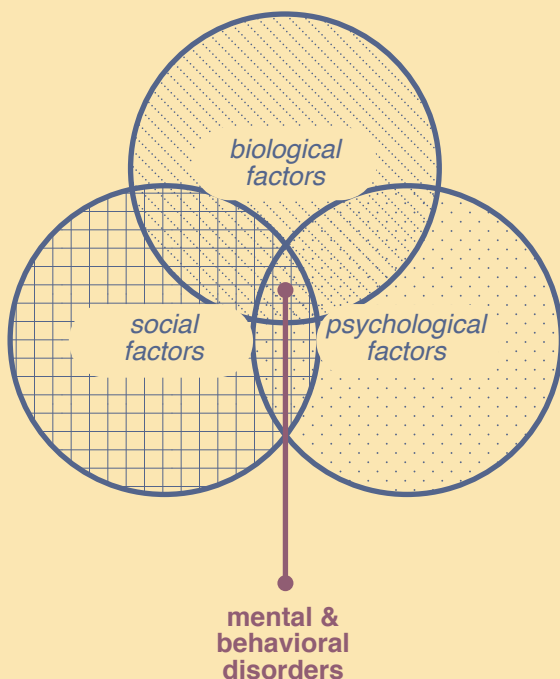
Addressing the current healthcare system is another challenge we will face during the project; tradition based systems like the healthcare can be challenging to work with. Therefore, we have to design a strategy to approach this system and involve relevant actors in the project, in order to build a network that can contribute to the outcome, as well as influence other people in the system; improving the possibility of future implementation and potential disruptive innovation.



# 04

## relevance

### The need of positive mental wellbeing in adolescence



People who experience mental disorders during childhood and adolescence have a higher risk to experience mental problems later in life. According to the WHO, about half of all mental health problems in adulthood have their onset during or before adolescence.

Mental disorders (as most of physical illnesses) develop in a complex interaction between biological, psychological and social conditions. Experiencing stress, pressure at school, bullying, hormonal changes, etc., are some of the most common causes of low moods among adolescents; feeling low from time to time can be normal, however, poor coping skills and low self-esteem can cause regular and prolonged episodes of low mood that eventually progress to a mental disorder, and impact long-term health, well-being and development.

WHO states that improving resilience to mental illness among young people is very important, as being in good emotional and physical health enables them to deal with the challenges of adolescence and eases their transition into adulthood. Support and early interventions designed to promote well-being, as well as teaching coping mechanisms are key to building such resilience.

## 04

### importance of preventive healthcare

Today, different methods and guides can be useful to identify adolescents who present symptoms of mental disorders; however, it is not possible to separate those who will experience temporary difficulties from those with chronic problems.

The Norwegian Institute of Public Health state that prevention of mental disorders in children and adolescents becomes easier when action is taken early, before the symptoms become chronic. This shows the need to help children and young people who have already developed symptoms.

Prevention programs have been shown to reduce disorders like depression and anxiety. These include community approaches such as school based programs to enhance a pattern of positive thinking in children and adolescents; in addition, interventions for parents of children with behavioral problems may reduce parental depressive symptoms that improve outcomes for their children.

Promoting a positive mental wellbeing in childhood and adolescence is associated with increased social competence and good coping strategies that lead to more positive outcomes in adulthood

## 04

### **Mindfulness therapy as an effective treatment**

Mindfulness therapy has shown to have a positive impact on preventing relapses in people with depression and anxiety (among others). This type of alternative therapy refers to the concept of being present in the moment; incorporating meditation techniques to help patients watch their feelings and thoughts in a way that allows to work with them differently.

Mindfulness therapy has proved to be just as effective as medication in preventing relapses; however, prejudices against mindfulness and meditation represent a high challenge in adopting the techniques, as people associate these terms with a religion-based ideology.

## 04

### **Wellbeing of the population**

*Supporting activities that promote  
mental wellbeing and prevent mental  
disorders*

### **User & Carer empowerment**

*Develop services based on  
their needs, aspirations and  
experiences*

### **High quality information**

*Information about mental health and  
mental disorders is often lacking*

## **No health without mental health**

Mental health problems not only affect the lives of people living with mental disorders, it also has an impact on their careers, family/relatives and the productivity of society as a whole.

The WHO in the European region, has established five priorities to focus when it comes to mental health; we have found that the three priorities presented on the left, fit into the norwegian mental care context.



According to WHO, there is plenty of knowledge on what works in mental health promotion, prevention, care and treatment; the biggest challenge today is to implement this knowledge as services, and practices of today do not always reflect it.

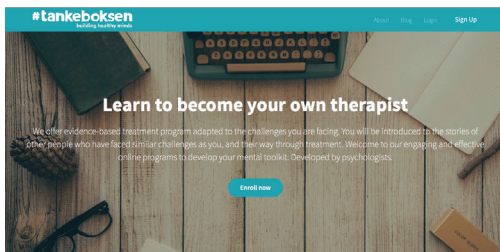
Stigma and prejudice are still common, and they affect all aspects of mental health, including whether people seek and receive help.



Booster buddy app & Headspace

Mental health and mental wellbeing

04

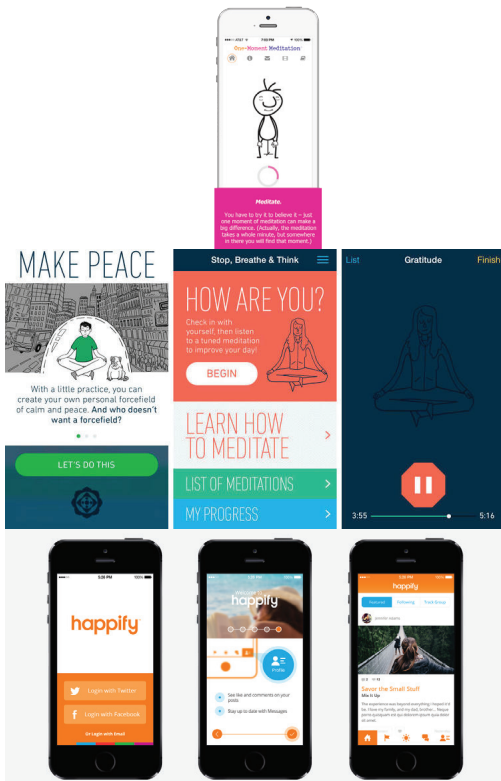


#Tankeboksen

Cognitive Behavioral Therapy  
online program

Existing services

We have until now looked into some existing services and apps within our topic, to get an overview of what already exist and a general idea of how these interfaces work. We've looked mainly into applications for how to meditate, mindfulness techniques and exercises, how to deal with mental health issues and services that offer courses for cognitive behavioral therapy.



OMM(One moment meditation)  
Breathe app  
Happify

Meditation and mindfulness training

There are plenty of existing solutions on the market, but through our research we have not experienced that they are sufficient in their use. They are apparently good looking and it seems like they have some good content, but it is a common problem that they are difficult to use for a prolonged period of time. Since the main purpose is to practice the exercises over time in meditation and mental health treatments, this is a critical part of the application.

Charlotte Lunde, psychiatrist and expert in the field of mental health for children, has discovered through her practice that there is a big barrier of using these interfaces because of the language. One of the goals of the services is to understand how the users' mind and thinking process work. However, it seems like it is easier to talk about emotions and thinking processes in their own native language, which then makes it problematic when most of the apps are in English.

We have experienced that many of the apps are often too complex and the target group is too broad. Something Charlotte also pointed out, is that there are often too many choices within these apps and it is hard to find exactly what you need in the right time.

# 05

## motivation

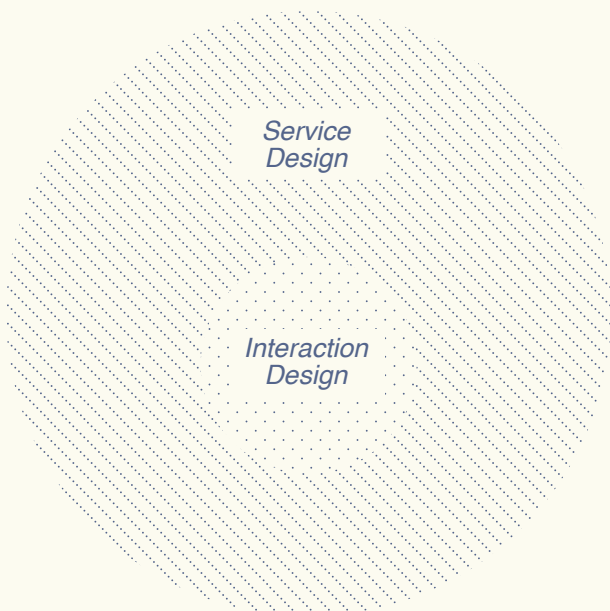
### *Our position as designers*

We wanted to work with mental health because it is strongly connected with physical and health overall, however, we feel that this is a stigmatized topic and it is hard for people to talk about, since it can be intangible and very complex to understand. We believe that with a design approach, we could contribute to normalize the topic and use qualitative methods to dig deeper into the users' behaviors and experiences, in a topic that is buried in a lot of statistics and a complex language.

Both of us have previous experience with healthcare projects from school, in service-, product- and interaction design, and through that we have seen the value and the positive impact that design thinking can bring into the health care systems. Therefore, we believe that by combining service- and interaction design, we can dig deep into the details of how people interact with digital platforms, and simultaneously look with a holistic approach, the context that surrounds these interfaces.

### *Goals*

Our goal is to show stakeholder and professionals in the Norwegian healthcare system what design can contribute in health care through designing a digital tool/instrument for use in treatment of emotional disorders, and influence therapist and patients to use it in therapy through a service.



## 06

### process

In this diploma, we want to work closely with the different actors and stakeholders involved in treatment situations of emotional disorders in adolescents. To achieve this, we need to build a network of people that can become part of the project throughout process. We will apply co-design methodologies in both service and interaction design processes, in order to involved this network and strengthen the outcome for a possible future implementation. Our hope is to inspire different stakeholders and professionals along the process and demonstrate the value and contribution that design can bring into healthcare.

## 06

### **prephase**

*We will start our diploma with a broad exploration of our topic. In this phase, the aim is to establish contact with professionals, users, stakeholders and actors; in order to build a network and map out the system and its' current offerings. This map will help us to get an overview and understanding of how the system works*

*Simultaneously, we will explore different strategies to get a closer look into our target group; as well as testing out existing interfaces with a broad group of people, trying to identify strengths, weaknesses and potential improvements of services already in the market.*

*The outcome of this phase will be the map out the system and initial findings, as well as a visual language/profile that will be use throughout the project.*

### **phase one**

We will continue our research with users and different actors during this phase. However, we want to start an early ideation and testing phase that will point us towards areas and topics to dig deeper into. In order to achieve this, we will use the initial findings and research obtained during the prephase, to formulate hypothesis that will help us to scope our approach when it comes to user experience; and allow us to quickly ideate and prototype things.

The outcome of phase 1 (and prephase) will be shown during the first midterm, and will consist of the analysis of our research and key findings, value proposition, early explorations and possible directions.

### **phase two**

This phase will have a strong focus on developing the concept. Starting out by exploring broadly the possible directions previously selected and continue through an iterative process to assess the different ideas. Here, involvement of different actors will be a key element to the process. Co-design methods will be applied to engage different people and create ownership to the project.

Research will be made when necessary, however, this will not have a strong focus as the previous phases.

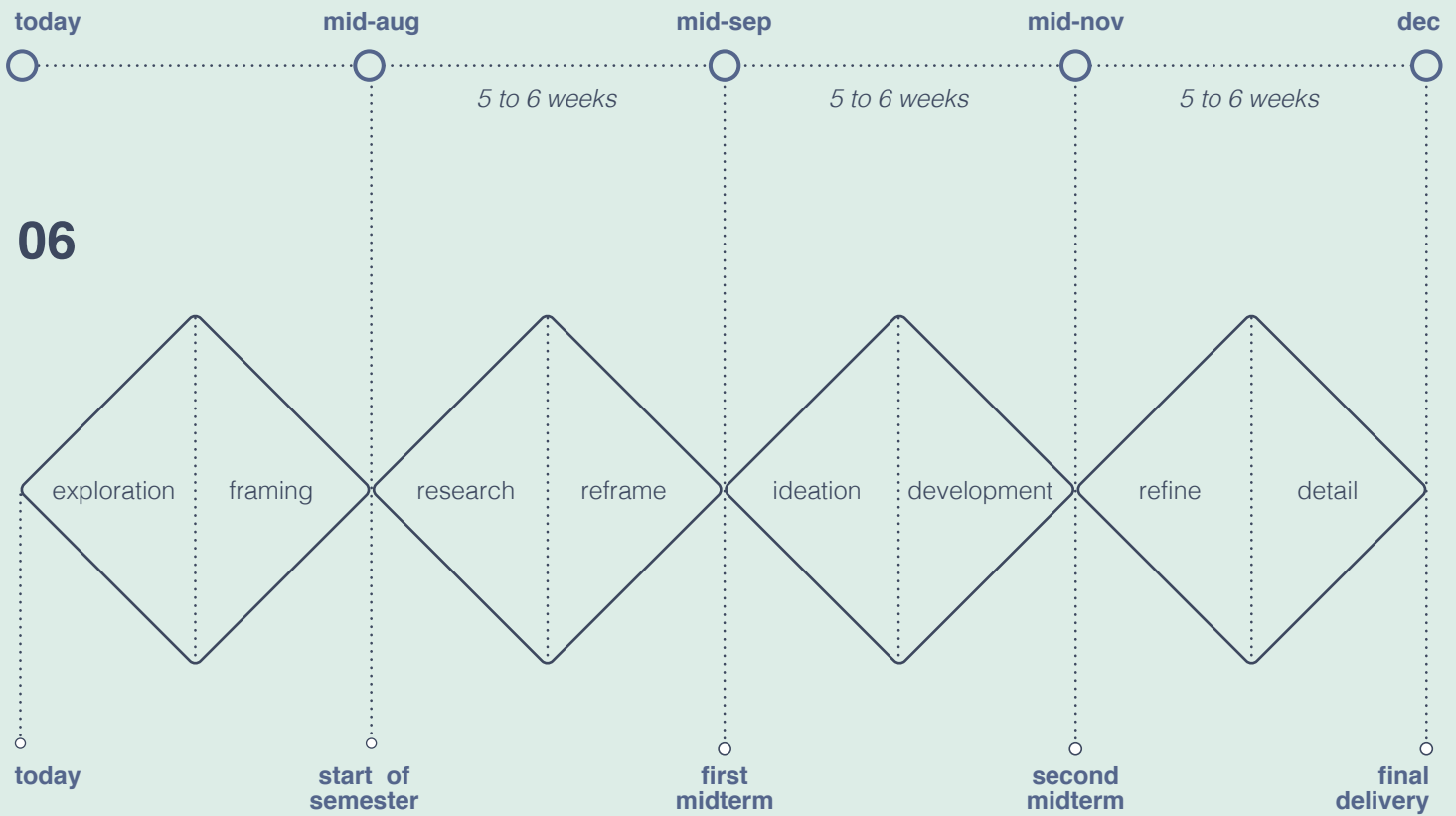
The outcome of phase 2 will consist of the overall service and UX concept, service principles and prototypes.

### **phase three**

The main focus of this phase will be about refining and detailing our concept. This will include finalizing and evidencing together with different actors, as well as developing a strategy to communicate and explain our approach and proposed service and ux experience.

The outcome of phase 3 will be part of the delivery of the diploma, consisting of the final report containing our process, findings, concept and contribution; clickable/tangible prototype and complete service with guidelines, visualizations and user journey.





Prephase	Phase 1	Phase 2	Phase 3
<i>Mapping &amp; Exploration</i>	<i>Research &amp; insights</i>	<i>Concept development</i>	<i>Finalize</i>
<ul style="list-style-type: none"> <li>Build the network</li> <li>Actors overview</li> <li>Mapping of the system</li> <li>Interviews and workshops</li> <li>Testing existing apps</li> <li>Desktop research</li> <li>Framing the scope</li> <li>Defining visual language</li> </ul>	<ul style="list-style-type: none"> <li>Hypothesis</li> <li>Early ideation, prototyping and test</li> <li>Observations, user interviews, workshops.</li> <li>Desktop research</li> <li>User journey from different actors</li> <li>Analysis and reframing</li> <li>Findings and key insights</li> </ul>	<ul style="list-style-type: none"> <li>Ideation workshops</li> <li>Prototyping and testing with actors</li> <li>Conceptualization</li> <li>Iteration with stakeholders and users</li> </ul>	<ul style="list-style-type: none"> <li>Detailing of a concrete user experience and service journey</li> <li>Final prototype and visual communication tools</li> <li>Evidencing and test with stakeholders</li> <li>Report and documentation of final project</li> </ul>
<p><b>Kick off:</b></p> <p>Map of the system and actors</p> <p>Initial findings/painpoints</p> <p>initial journeys</p> <p>Visual language/profile</p>	<p><b>First midterm:</b></p> <p>Key insights</p> <p>Value proposition</p> <p>Early sketches/prototypes</p> <p>Possible directions</p>	<p><b>Second midterm:</b></p> <p>Overall service &amp; ux concept</p> <p>Service principles</p> <p>Prototypes</p>	<p><b>Final delivery</b></p> <p>Report with documented process, approach and result</p> <p>Clickable/tangible prototype</p> <p>Complete service with visualizations and journeys</p>

## 06

### *Outcome & contribution*

Our end result will strongly be focus on a Digital prototype that will make the interaction between therapist and patient better, make it easier for the patients to get a better understanding of their condition, and how they can prevent relapses. The digital prototype will also contain a visual language that promotes the purpose of it; this Digital Prototype will be surrounded by a service concept that will consist of a service journey, guidelines and principles.

With our diploma, we aim to inspire people along the process, demonstrate the value of design and improve the possibility of future implementation and potential disruptive innovation.

### *Literature*

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### *People to contact*

*Charlotte Lunde: Works as a psychiatrist and she is specified on children with mental health issues (Stress, depression and anxiety). She also believes in meditation as a tool in therapy.*

*Hans Martin Stene: Works as a psychiatrist in SIO, uses meditation as a tool in treatment managing stress.*

*Nurse (Camilla BITR) from Ullevaal universitetssykehus With 30 years of experience in yoga and meditation. She uses breathing for pain-stimulating in her work at the hospital.*

*Simon Clatworthy: service design teacher at AHO and member of Centre for connected care (C3)*

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