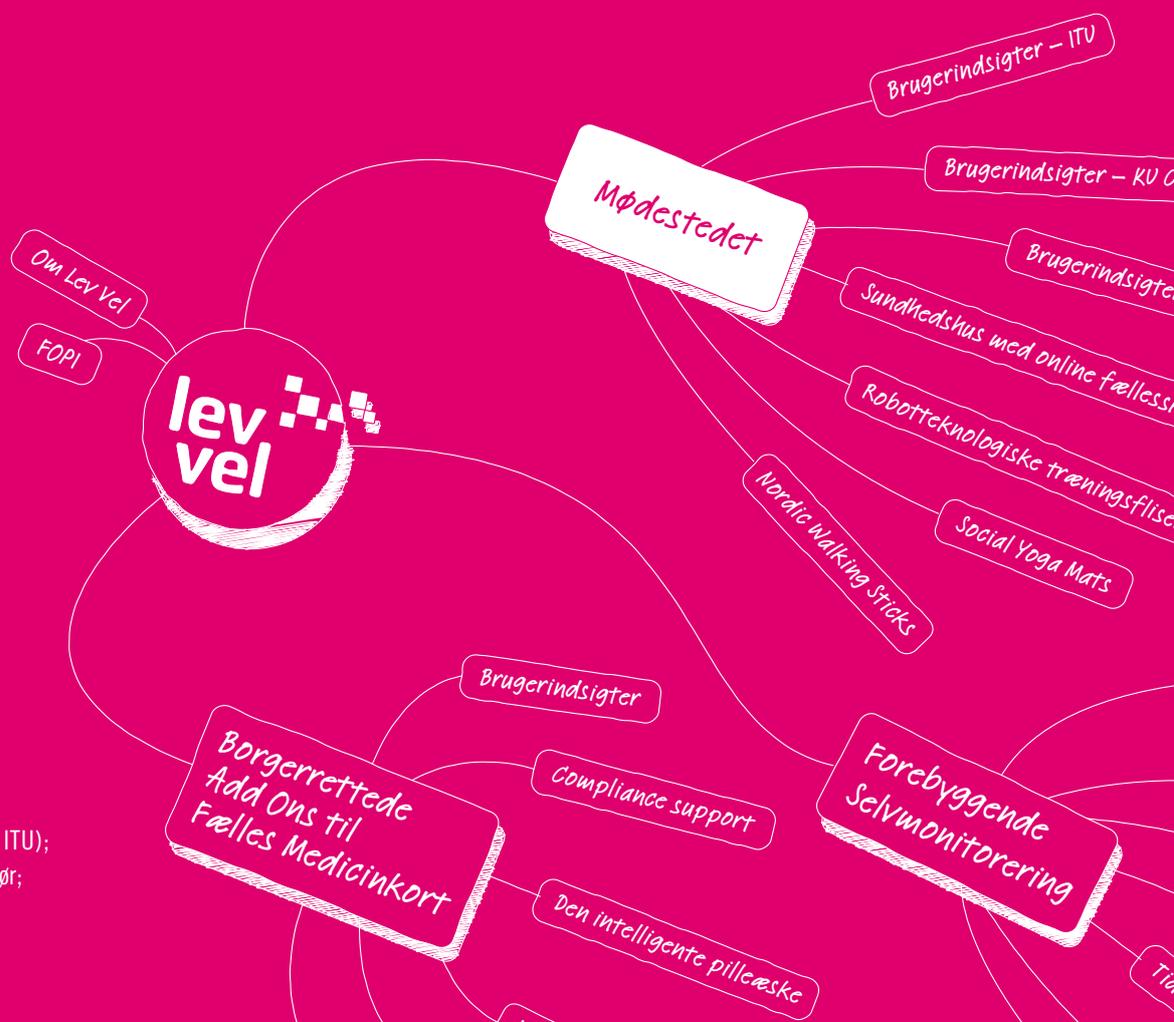


SOCIAL YOGA MATS



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SOCIAL YOGA MATS

The prototype 'Social Yoga Mats' is a manifestation of our larger design concept : reinforcing synergistic relationship between exercising and socializing over time and place, through digital technology.

From literature studies and our field experience regarding physical exercise activities, we observe that participating in a group exercise provides physical health benefits and also help improve social life. Performing in a group enhances sense of belonging to community, provide opportunity for socialization and introduce various social elements. In turn, these social aspects of exercising further increase motivation to perform exercise and do it regularly. Thus group exercise activities tend to create synergistic effect between exercising and socializing, and our interest is to design digital technology that reinforce this synergy over time and place.

The design exploration of 'Social Yoga Mats' aims to strengthen the synergy between weekly yoga classes for senior citizens and their solitary exercise at home through use of digital technology. Yoga is a popular activity among senior citizens and typically they attend a yoga class led by the instructor once a week and practice yoga exercises at home during rest of the week.

The design of Social Yoga Mats incorporates augmented yoga mats embedded with presence sensors and portable digital displays, the 'Yoga Tablets', that provides yoga instructions in video format. These devices are connected to the devices of the

other yoga class members. This enables seniors to notice others' yoga activities while also being noticed for their own efforts – thus making individual's activity visible among the peer network. In the long run, the system aims to support the practice of yoga at home and seeks to establish a social norm of regular exercise within the group while strengthening existing relationships.

The target groups is senior citizens who desire to keep themselves physically and socially active, and are part of weekly exercise classes.

During the design exploration, early on we engaged the users in the design process and conducted a series of workshop sessions with them that comprised of interactive hardware and software sketches. In parallel, we conducted a literature study related to aging and importance of physical / social life for seniors.

We outline some of the important insights from the user interaction sessions and the literature studies as below:

1. BUILD ON EXERCISING/ SOCIALIZING SYNERGY

During the exploration, we observed that seniors attend the weekly yoga class mainly for physical and health benefits. However they also enjoy the social benefits such as meeting with other participants, socializing with them before and after the class etc. Though socializing has not been the major motivation attending group classes, seniors admitted that doing exercise in a group has been beneficial . It provides them with social support, team spirit and motivation to perform their exercise and practice at

home. In the long run, many of the participants formed social relationships with the other class members that in turn became motivation to attend the class regularly. This way exercising / socializing compliment each other and produce a synergistic effect. Building on this synergy relationship would offer much larger, combined benefits than the individual components. Design of Social Yoga Mats builds on this foundation and aims to strengthen and extend the synergy between exercising/ socializing from the fitness centers to users home.

2. PROVIDE CLOSE LINKS WITH THE MAIN ACTIVITY

During the workshops, we observed that design of Social Yoga Mats became more meaningful and successful for senior participants when the designed features were tightly connected with the main activity of yoga. Also the social features in the design became more acceptable to users when they were closely related to the yoga exercise

MØDESTEDET

Formålet med projektet er at udvikle nye typer af mødesteder for selvhjulpne ældre. Mødesteder, der vil virke tiltrækkende og motiverende, fordi de øger både den mentale og fysiske fitness gennem en kombination af leg, oplevelse, træning og samvær.

Læs mere om Mødestedet i Lev Vel bogen i kapitel 2.

such as awards based on Yoga, or health tips etc. While users generally disregarded features not directly linked with yoga.

3. SUPPORT TRANSITION FROM GROUP EXERCISE AT FITNESS CENTRE TO PRIVATE EXERCISE AT HOME

In order to strengthen the synergy over time and place, it was important to take into account the dynamic pattern of yoga exercise done by seniors traversing between weekly yoga class at fitness centers to private exercise at home. The design of yoga mat supports this transition on both physical and social sides. The yoga tablet show video instructions selected by the class instructor to help users continue practice at home with exercises taught in weekly class. Whereas on the social front, attendance at regular classes naturally places participants into a social relationship with each other, providing the foundation on which design of Social Yoga Mats can function. Our design seeks to strengthen these relationships by making people aware of one another's shared interests and activities more often. However, to ensure that the association does not become too abstract, the regular meetings in real life are essential to reinforce the relevance and reality of the relationships.

4. LOOK AT PHYSICAL ACTIVITIES AS TICKETS TO TALK

For seniors feeling socially isolated, participation in group activities, including fitness, provides regular meetings and shared experiences that can make socialization easier. The goal of improving one's physical

fitness is accepted by all as reason enough to participate, so the possible added desire for companionship could remain unstated and ambiguous. Group exercise can therefore become a "ticket to talk," providing an opening for social interaction while avoiding the stigma associated with asking explicitly for relief from loneliness.

5. DESIGNING DIGITAL TECHNOLOGY FOR SENIORS

Some of the important insights on designing for seniors that surface during our studies are outlined herewith.

- Motivation towards technology: When exploring how senior citizens learn and use digital technology, we observed that there could be various external factors such as peer pressure, immediate needs etc that force seniors to learn a new technology. However true intrinsic motivation to learn new technology comes when seniors see some direct benefits in using it.
- Simplicity of function: Seniors are overwhelmed by multi -function, multi- purpose advanced technologies that demand higher cognitive loads. Instead they tend to prefer simpler technologies with singular focus. In their words "If a technology system comes through my door it better serve single purpose"
- Privacy concerns: Seniors are very protective about maintaining their privacy and tend to reject technologies that, in some way, expose their private information to the outside world. In that context, design of Social Yoga Mats was appreciated since it was built on existing relationship between

known members of yoga class, that help reduce the privacy concerns.

SOCIAL YOGA MATS MOTIVATION

The key motivation behind the central concept has been to look at the group exercise activities as meeting point for exercising and socializing, and moreover to take advantage of synergistic relationship between these two, through digital technology. Social Yoga Mats exemplifies how digital technology, embedded into exercise objects, can reinforce an existing yoga practice and social relationships established in the yoga class – in time and place.

The design includes augmented yoga mats that create remote awareness of users' yoga exercise and make their activities visible among their peer network. This act of noticing others and getting noticed, lead to an increased feeling of being socially connected among the yoga class members. Whereas yoga tablets provide users access to detailed information about history of peer's exercise and their exercising rhythm and routine. It also provide communication features such as sending awards, applause, health tips etc and facilitates social sharing among the participants – creating opportunities for socialization. This way, users enjoy social benefits enabled through their exercising activities and which foster their sense of belonging to the community in time and place.

Physical fitness and an active social life are among two of the important needs for healthy aging. Social Yoga Mats help

strengthen the social aspects of an existing group of seniors, surrounding their physical activity, by spreading a shared awareness of each peer's activity. At the same time, it provides support to perform physical exercise at home on a regular basis. In this way, it helps fulfill above two needs with an increased motivation towards exercising through social support and creating opportunities for socialization through exercising.

Further, we imagine Social Yoga Mats can help alleviate some of the concerns associated with social isolation such as stigma of loneliness and thereby lower motivation to participate in social activities. Social awareness features of Social Yoga Mats can help users to maintain cover to their actual intention when exercising at home. This ambiguity of intention extends the ticket-to-talk effect experienced at weekly yoga class and help seniors to reduce loneliness without being stigmatized.

USER STUDIES

We began our investigation by observing and interviewing seniors attending various senior-activity centers in and around Copenhagen. Among other activities, we participated in yoga classes for a few weeks and then conducted three exploratory co-design sessions with a total of twelve seniors participating from three different yoga classes. All participants were women between the ages of 65 and 86. These sessions featured a presentation of video prototypes together with hardware and software sketches.

In phase two, we completed additio-

nal design iteration and conducted a workshop session with four senior participants from another activity center. The workshop session included a demonstration of the interactive hardware sketch with active user participation, followed by guided discussions and an interview session.

Throughout these sessions, the main focus was on stimulating the imaginations of participants and collecting qualitative feedback rather than evaluating the usability aspects of the specific design.

SOCIAL YOGA MATS CAN BENEFIT USERS IN MULTIPLE WAYS. FEW OF THE MAIN BENEFITS ARE DESCRIBED AS BELOW

1. Social Yoga Mats provides a formal or informal social network for seniors built around their weekly yoga classes. These social networks provide grounds for class participants to socialize and stay connected with each other over time and place. Having such a social network increases motivation towards exercising. Also such networks may open up possibilities for supporting each other informally through shared awareness, noticing each other's rhythms and routines.
2. Social yoga mats support seniors to continue exercising their yoga lessons at home, that are taught in the weekly class, with help of the yoga tablet. Class instructor can play an instrumental role here to deliver customized lessons as per the individual needs of the class participants.
3. For seniors feeling socially isolated, participation in group exercise activities,

provides regular meetings and shared experiences that can make socialization easier. And system like Social Yoga Mats that aim to extend the benefits over time and place, can help provide relief from loneliness without being stigmatized. This way Social Yoga Mats make the routine exercise activity such as yoga, an attractive possibility to gain social circle and support.

FEEDBACKS AND INPUTS PROVIDED BY USERS PROVED VERY VALUABLE AND HELPED US IMPROVE OUR DESIGN.

Below we describe some of the comments given by users and how these helped us in design iterations

1. In overall the users were positive about the idea of social yoga mats and appreciated the concept of creating social networks tied around a physical exercise activity.
2. In earlier iteration of design users commented on the lack of support for doing the yoga exercise, which we incorporated as support through video lessons in the second iteration. Also In future, we would like to include support for monitoring different yoga positions and study how it impacts users' perception.
3. Users expressed their concerns about the some of the usability aspects of the design such as placement of indicators and electronics etc which may obstruct doing their exercise. They further observed that receiving notification of others' status could create undesirable disturbance when one is performing his own exercise. In future iterations, we may provide features to

control the status updates from the network at user's will.

4. In earlier iterations, participants noticed that they may miss the notification of someone is online if the mat is placed out of sight or folded. Hence we included new persistent indicators in the yoga tablet interface.
5. Interestingly, few of the participants thought of Social Yoga Mats as means to stay in touch with close family members and friends who are located apart, without disturbing into their lives. We consider this as useful feature and would like to further build on it.

FLEXIBLE DESIGN

The design of Social Yoga Mats is flexible enough in terms of its implementation and usage. It can be thought of as a service provided by the fitness centre who then provide users with the new yoga mats and the tablet as part of their class subscriptions. Or it could also be thought of as add-on service provided by the yoga mat manufacturers where customer can become part of certain yoga group online and have possibility to connect with a yoga instructor and other interested participants.

Keeping the underlying concept as the same, design of Social Yoga Mats could be easily extended to other group activities such as group biking, dancing class or group gym class etc. Also the concept could be easily extended to a different situation where there is not enough motivation to exercise. Eg. a system similar to Social Yoga Mats could be helpful in maintaining motivation

among participants during Rehabilitation exercise practices.

A SAMPLE USE SCENARIO COULD LOOK LIKE AS BELOW

Margaret and Lene are pensioners who recently joined the new yoga class held on every Sunday at Wiedergarden activity centre. As a new initiative, the centre provided users with Social Yoga Mats as a part of their subscriptions. Every Sunday during the class, participants receive instructions from the yoga instructor, which later are available as video lessons on the Yoga tablet. At home, as Margaret exercise on her yoga mat using the video lesson, it notifies her other class members through indicators on their mat and the tablet.

Seeing such regular updates from Margaret inspires Lene to do her own exercise and keep it up with rest of the class. Lene also sends Margaret an applause award congratulating her on exercising regularly for two months. Margaret in turn, shared some new health tips with Lene. This way, exercising becomes a means to notice others and get noticed and provides motivation to socialize and exercise.

FAKTA

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