



Investigation of overprotection in pediatric cardiology

According to research, parents of children with congenital heart disease are prone to overprotect their child. Such overprotective behavior not only harms healthy child development but also is expected to be more prevalent in the future. Therefore, Sophia Children's Hospital and Industrial Design Faculty, TU Delft have set a collaboration project to tackle the issue.

After comprehensive research in literature and empirical, the designer proposed a reformulated design goal for the collaboration project. To reach the design goal, three design missions need to be conducted in sequence, thus three design briefs are proposed as guidelines.



People

Explore and collect the considerations with key users regarding a rational boundary-defining process

Goal

Investigate the considerations from each user and propose a rational boundary-defining process.

Overview

The assignment starts with the creation of an in-depth understanding of the considerations of each key player (e.g., parents, patients, and medical experts) by interviewing them.

Second, the student will use his/her design skill to determine or quantify the significant level of each consideration regarding the appropriate boundaries between proper-protection and overprotection.

Finally, the student will propose a concept of the rational boundary-defining process.

Technology

Translate the considerations into an actionable boundary impartially and effectively

Goal

Design for an algorithm that can calculate users' considerations and further translate into actionable boundaries effectively.

Overview

The assignment starts with the creation of an in-depth understanding of artificial intelligence and algorithm applied in the medical domain through interviews with experts (e.g., data scientists, AI experts, cardiologist... etc.)

Second, the student will use his/her design skill to propose a concept of a smart product-service system which can translate users' considerations to an actionable guideline on boundaries between proper-protection and overprotection.

Finally, the student will create a prototype of the smart product-service system and conduct an evaluation.

Organization

Facilitate a cross-discipline discussion for boundary adjustment in Sophia Children's Hospital

Goal

Investigate the organization workflow in Sophia Children's Hospital and propose an implementation plan on the product-service system.

Overview

This assignment starts with the creation of an in-depth understanding of the organizational overview in Sophia Children's Hospital, with a focus on cross-departments collaboration.

Second, the student will use his/her design skills to propose an implementation plan of the smart product-service system in Sophia Children's Hospital. Finally, the student will develop an implementation roadmap as a final deliverable.

CORE VALUE
TRUST
UNDERSTANDING
CONSENSUS

The ultimate goal

"Design a product-service system which facilitates rational discussions within children with congenital heart disease, their parents, and medical experts, to achieve a consensus upon diagnosis-specific and personalized boundaries between proper-protection and overprotection."

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Strategic Product Design

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