

How can 305 online user-stories inspire the design process?

An Natural-Language-Processing approach to enhance the design process of a paediatric healthcare ecosystem.

March the 5th, 2020 at 12:30 - 13:30 hrs - HTC, Work Station 5 & 6

Jiwon Jung and **Hosana Morales** will share their perspectives on the implementation of Data Science techniques in the design process during their Inspiring Bite at Philips Design. The focus of their presentation will be on the project "Bo", a smart Product-Service-System aiming to support parents and their children with a heart defect to understand the safety-boundaries of exercise during free-living conditions. It will be demonstrated how 305 online stories from these parents were analyzed with NLP techniques and used to explore the design context further. Moreover, it will be shown how the analysis with Machine Learning can be used to inspire the medical team to foster the development of smart healthcare systems.

The project was conducted at **CardioLab**, a collaboration between Philips Design, Dutch Heart Foundation and TU Delft. The aim of CardioLab is to prevent high-risk groups of people from becoming cardiac patients and to provide cardiac patients with a longer and healthier life.

Our speakers



Jiwon Jung currently works as a Ph.D. candidate at Cardio Lab, TU Delft- supervised by Maaïke Kleinsmann, Dirk Snelders, and Jeroen Raijmakers. Her research interest is how to support the designers who want to integrate the large data in their design process to observe social dynamics and go beyond the personal level of observation. Her research topic is to develop a design tool to translate large data visualization to design insights. She has obtained her Industrial Design Msc. from KAIST (Korea Advanced Institute of Science and Technology) under the supervision of Prof. Kunpyo Lee. She has published her papers in CHI and DIS, and served as an invited reviewer of Journal Reviewer of International Journal of Hospitality Management (Outstanding Contribution), and CSCW, ACM. She has corporate project experience with Korea University Hospital, Johnson Controls, Dongbu Daewoo Electronics-IoT products, Coway-family IoT products, Alticast- flexible display.

CardioLab



Hosana Morales is a Mexican designer who studied Industrial Design (BSc) at the ITESM (Instituto Tecnológico y de Estudios Superiores de Monterrey) and completed an MSc in Integrated Product Design at Delft University of Technology in January 2020. Throughout her Master studies, she worked in close collaboration with the Sophia Children's Hospital from the Erasmus MC and the VUmc Amsterdam in projects involving Healthcare Product-Service-Systems (PSS) for children and their parents. During her MSc thesis, she developed a smart PSS called "Bo" the main topic of the Inspiring Bite. She is interested in how Natural-Language-Processing (NLP) techniques can enhance the design process of connected ecosystems that improve the quality of life.