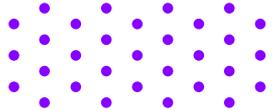


Health
Design
Lab.





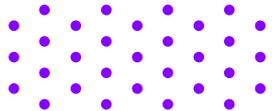
The Health Design Lab is a research and design centre at Emily Carr University.

Within the lab, faculty and students work collaboratively with industry and community partners to address complex challenges in health and healthcare through a human-centered design approach.

Our work places an emphasis on participatory design research and the involvement of patients, care providers and healthcare staff throughout the design process.

We work with a range of partners including Health Authorities, hospitals, public organizations, non-profits, private business and local start-ups.

Faculty and students working in the Health Design Lab primarily come from four key programs at Emily Carr University: Communication Design, Interaction Design, Industrial Design and Master of Design program.



The First Five: Designing the front entrance experience for St. Paul's Hospital

Project Partner

St. Paul's Hospital Redevelopment Team

Timeline:

Oct. 2017–Apr. 2018

Project Team:

Eugenie Cheon

Stephanie Koenig

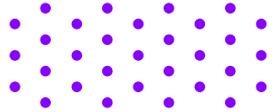
Emi Webb

Caylee Raber



Project Partner

St. Paul's Hospital Redevelopment Team

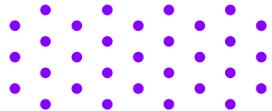


HDL collaborated with the St. Paul's Hospital redevelopment team on this project, to further explore and consider the patient and visitor experience upon entry into the new hospital. Titled "The First Five", the focus of this project was on the first 5 minutes, the first 5 user needs and the first 5 actions upon entry. This project explored questions such as: What will be the emotional state of people as they enter the facility and how can this be considered in the design of the space and services delivered? How can we create an entrance space that is empathetic, human-centered and supportive?

The HDL team used a human-centered design approach, to observe, listen and generate insights for the new entrance, with an empathetic and person-centered focus. Beginning with site visits and ethnographic observations at facilities across

the Lower Mainland, our findings informed the development of a set of personas and co-design activities specific to the St. Paul's Redevelopment project and local community. Utilizing these tools HDL led three community co-design workshops in order to gain insights and recommendations directly from past patients and visitors.

Through a participatory co-design process and engagement with core users, this project has resulted in a series of ideas and recommendations for the St. Paul's Redevelopment Team and the future architectural team, to inform the design of the new hospital entrance experience.



IlluminAid: Lighting for Residential Care Facilities

Project Partner

Providence Health Care

Timeline:

Apr.–Dec. 2017

Project Team:

Emily Ellis

Michael Lee

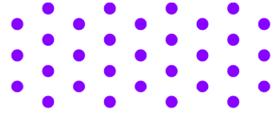
Radu Postole

Caylee Raber

Project Partner
Providence Health Care



Project Partner
Providence Health Care

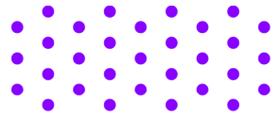


Falls are a major concern for seniors, especially those living in residential care homes. For the IlluminAid project, the Health Design Lab (HDL) worked with Providence Health Care and the residents, family and staff to develop a working prototype of a lighting system that can be used in residential care homes to reduce falls and increase quality of sleep.

In 2017 Providence Health Care received funding from the Center for Aging and Brain Health Innovation to collaborate with HDL on the development of an under-bed motion-activated lighting system. The HDL team designed a functional prototype which underwent user-testing at Brock Fahrni and Youville. The intention was to develop a modular lighting system that could easily be installed in any existing facility without requiring major changes to beds, or facility infrastructure.

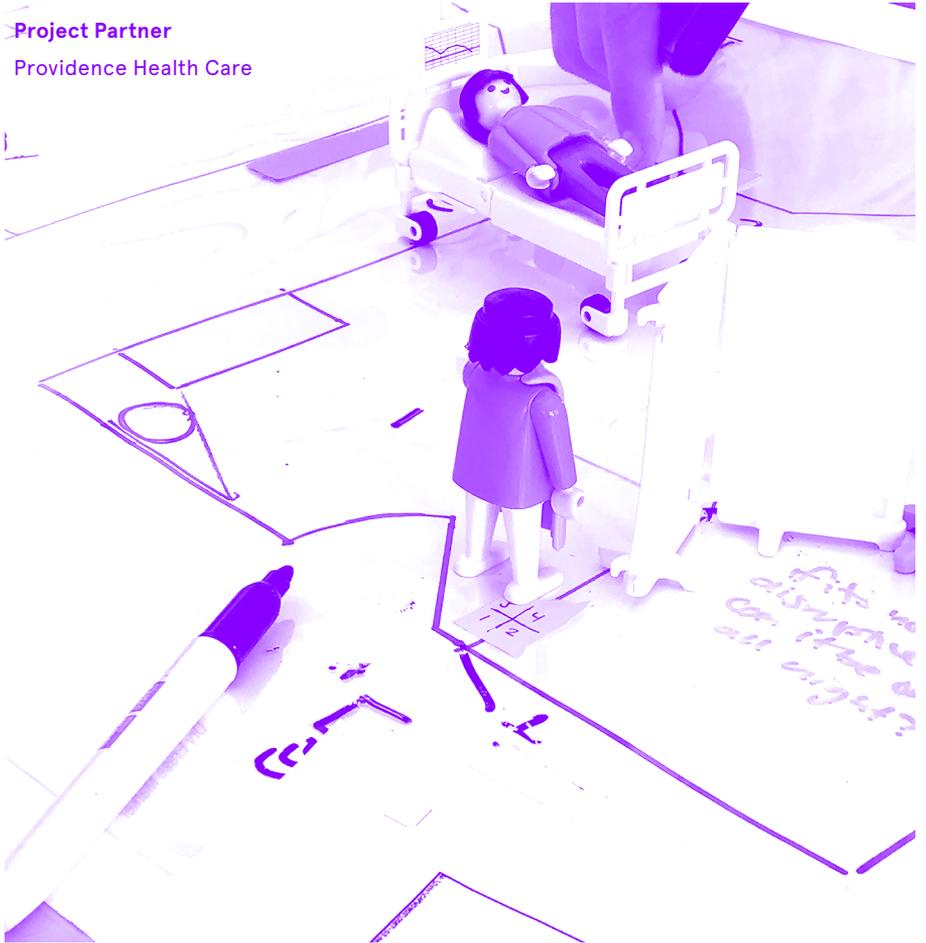
This project utilized human-centered design methods to gain an understanding of the problem space and to develop a solution that addresses the complex needs of residents and staff. The HDL team used overnight shadowing, role-play, scenarios and rapid prototyping in collaboration with Providence to design the final the lighting solution.

With our proof-of-concept completed, PHC is now exploring how to further validate, scale and implement the solution designed by HDL.



Project Partner

Providence Health Care



Project Partner
Pacific Autism Family Network



A website to increase the uptake of Autism research by families

Project Partner

Pacific Autism Family Network

Project Team:

Stacie Schatz

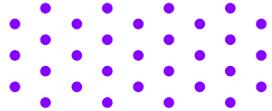
Caylee Raber

Timeline:

Oct. 2017–May 2018

Project Partner

Pacific Autism Family Network



HDL has been collaborating with the Pacific Autism Family Network (PAFN) since 2015 to better understand the needs of families in the Autism community. Our collaboration over the past three years has undergone three distinct phases, each of which has illustrated different ways in which designers can support and facilitate social innovation.

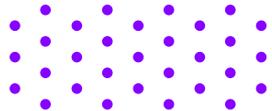
Phase 1: in 2015/16, exploratory research was conducted to better understand the research needs of families. We led a series of co-design workshops with researchers and families to better understand the current state of communication and knowledge exchange between these groups.

Phase 2: in 2016/17, through co-design workshops with families and researchers, we learned that access to reliable and credible research for families is a significant challenge. Researchers and families identified the need for a curated web-platform with credible

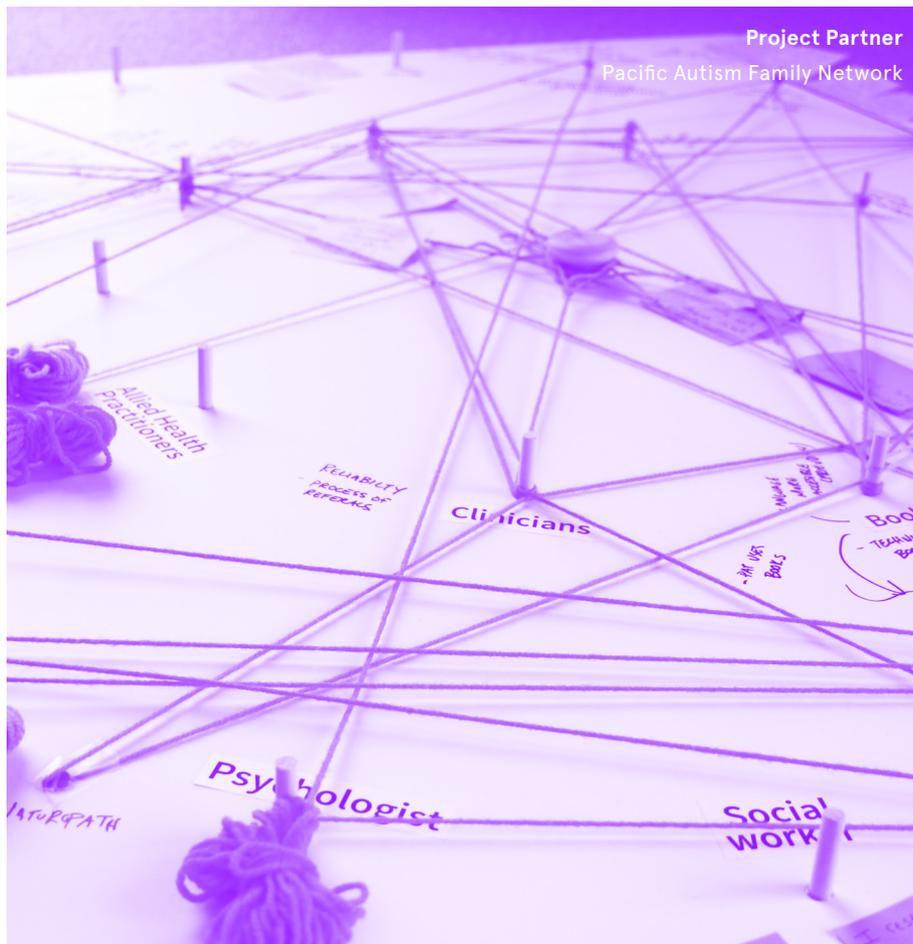
research content to improve knowledge exchange through more accessible communication modes.

Phase 3: in 2017/18, we collaborated on the design of a web-platform to facilitate the uptake of credible, evidence-based research by families and individuals with Autism. This work began with a focus on creating a research platform, but through engagement of families in our design process, the concept evolved to into a more substantial platform that would also guide families towards local services and community events; essentially creating an online ‘one-stop-shop’ for families in BC.

Through co-design workshops with the Autism community HDL has created a family-centered web-platform concept for future development by PAFN.



Project Partner
Pacific Autism Family Network



Embedding designers within a quality improvement team

Project Partner

Vancouver Coastal Health

Timeline:

Jan - Apr. 2018

Project Team:

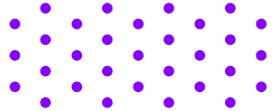
Claudia Hopkins

Zora Trocme

Caylee Raber

Project Partner

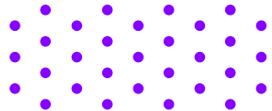
Vancouver Coastal Health



The HDL collaborated with Vancouver Coastal Health (VCH) and its Quality Improvement (QI) team to further support and enhance their work at the Unit-Level with Releasing Time to Care (RT₂C). For this project, two HDL Research Assistants were embedded as team members within the VCH QI Team, working one day a week for 3 months on-site at Vancouver General Hospital and Richmond Hospital.

The focus of the collaboration was to consider: how can we embed reliable, meaningful data at the point of care; how can we inspire action through data to improve patient experience and health outcomes; and how might we enhance QI initiatives through the integration of designers on QI teams?

The goal of this project was to explore ways to increase engagement, education and output at the unit-level to ultimately, improve patient experience and health outcomes. This project was a pilot for the integration of designers within QI teams to support the RT₂C Initiative, and may look to be expanded upon as a new model for collaboration



Digital therapeutic device for delirium and dementia

Project Partner

MindfulGarden

Timeline:

Sept. 2017–Apr. 2018

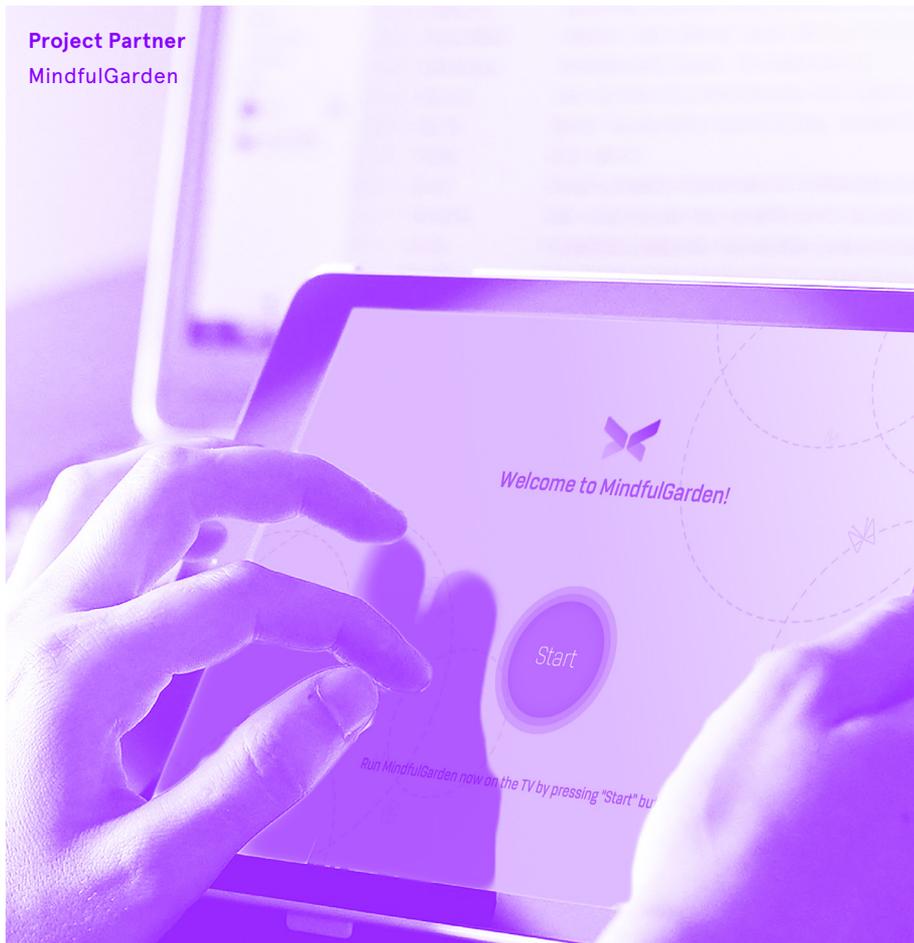
Project Team:

Ateret Buchman

Michelle Yao

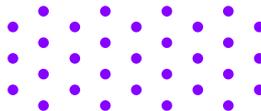
Chris Hethrington

Project Partner
MindfulGarden



Project Partner

MindfulGarden



MindfulGarden is a digital therapeutic platform that utilizes interactive therapeutic technologies, in the form of patients-activated visual stimuli, designed to reduce anxiety and aggression in seniors with delirium and/or dementia. By introducing this therapeutic platform upon admittance, it enables treatment to begin sooner, thereby shortening the length of stay, and significantly reducing the cost of care, while improving health outcomes.

The HDL collaborated with the MindfulGarden team, to optimize the user experience of their platform for both caregivers and patients. Using human-centered design methodologies, the HDL team designed user interface assets for the control panel of the MindfulGarden system, as the main project deliverable. The HDL team researched, prototyped, tested and revised the user interface design of the control panel throughout the whole project timeline.

In addition, the HDL team generated design considerations and insights surrounding the device's hardware, interactive video content and precedent research.

Moving forward, the MindfulGarden team is continuing their clinical trial and preparing for their initial market launch in hospitals and long-term care facilities.



Communication design to support self-regulation

Project Partner

Kenneth Gordon Maplewood School

Project Team:

Mariko Kuroda

Caylee Raber

Timeline:

Sept. 2017–Mar. 2018

Project Partner
Kenneth Gordon Maplewood School



elastic band crunches



shoulder-to-shoulder



monster faces



drink water



jumping jacks



mountain climbers



biking



read at desk



crab walk



bouncy songs



goopy play



quiet work place



book n' pillow corner



quiet place



snowball crunches



squish



drink water



breathing



exercise ball workout



participate in class

Project Partner

Kenneth Gordon Maplewood School



For a number of years, HDL has partnered with Kenneth Gordon Maplewood School (KGMS), a school for children with learning differences. Many of our collaborations have focused on supporting students' self-regulation, or the ability to monitor and control behaviors, thoughts, and emotions. The objective of this year's project was to build upon existing resources and materials at KGMS to design communication materials that support a consistent messaging of self-regulation at KGMS. The final deliverables included a new visual language and set of characters for self-regulation which have been applied to a range of flexible resources including cue cards, posters, worksheets, and digital materials for students and teachers.

Currently, KGMS primarily uses two resources to implement self-regulation in the classroom: Zones of Regulation and Stickids. Zones of Regulation, developed by occupational therapist Leah Kuypers,

categorizes emotions and level of alertness into four color categories: blue, green, yellow, and red. Stickids, produced by Community Therapy Associates in Alberta, is a collection of stick figure images representing physical activities that support sensory integration, sensory processing, and sensory motor challenges.

This project aimed to redesign Stickids to improve its clarity, and design a set of communication materials for all teachers to use. Key objectives for this project were to create materials that could be delivered in a format that were easy for teachers to access, reproduce, and modify as necessary. This design work targets students in divisions 1 to 8, which is equivalent to grades K-7.



Zeitgeist: A Storytelling Project With Residents and Student Designers

Project Partner

Purdy Pavilion, Residential Care Facility
Vancouver Coastal Health

Timeline:

Jan–Apr. 2018

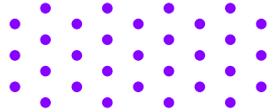
Project Team:

Jon Hannan
Caylee Raber
Emily Ellis
3rd Yr. Comm Design Students



Project Partner

Purdy Pavilion, Residential Care Facility

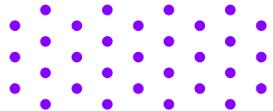


In Spring 2018, residents in a long-term care facility came together with a class of undergraduate communication design students at Emily Carr University, to co-design and co-write a mini publication series featuring resident stories.

Through our project, small teams of 2-3 students were paired with 1-3 residents, to create a mini-publication over the course of 6 visits with each other. The purpose of the Zeitgeist project is to create a platform for meaningful exchange and social interaction between students, residents, their families and care home staff through both the design process and the final design outcomes. This project gives voice to residents, providing an opportunity for creative and emotional expression, stimulation of positive memories and the engagement of residents in a unique and meaningful activity. Simultaneously this project offers design students learning opportunities

in storytelling, publication design, co-design and participatory design research.

This project was inspired by the Zeitgeist Kollektiv, a public editorial design and storytelling project within a care home system in Zurich, led by the designers Carolyn Kerchof and Martina. Our goal through this research and design project is to explore what a local model and publication might look like here in Vancouver. In particular, we are interested in how this project might help to address some of the unmet needs of residents identified in the 2017 Residential Care Survey from the Office of the Seniors Advocate BC. These include the need to provide BC seniors with more opportunities to engage in meaningful activities, explore new skills/interests, connect with people to do activities with, and be asked for help and advice.







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