Developing Fast, Low-Cost, and Human-Centered Solutions for Social Distancing

How might we use the design thinking process, which consists of researching (empathizing/defining), ideating, prototyping, testing (and iterating), to generate low-cost, high-impact solutions to help us maintain safe social distance? How might we respond to the WHO and CDC mandates?

The Global Innovation and Design (GID) Lab student team -- Mailyn Abon, Abdul Abubakar, Anh Lam and Christopher Sim -- with Program Administrator Krissy Kimura, is creating solutions now! Read on for a few of our ideas.

As of April 3, 2020, the CDC recommends wearing a cloth face covering. Program Administrator Krissy Kimura and her husband, Adam Kebeck, get ready to go grocery shopping at Trader Joe's.

Alternative methods of social distancing include using a 17-foot hula hoop. Image via The Suburban Times.
How might we make it easier to follow the rules and guidelines around social distancing?

Our team started by challenge mapping, a collaborative problem framing and refining method that generates alternative strategies and tactics for tackling a problem. Our starting point was the How Might We (HMW) question, “How might we address the WHO COVID-19 mandates through design thinking?”

From there, we generated strategies by asking “Why?” over and over again. We organized the results into thematic clusters which focused on empathy, sharing the correct information, and being user-friendly.

Then we went back to the HMW to generate tactics by asking “What’s stopping us?” The tactical clusters focused on fear and the media, access (to technology), lifestyle changes, money/work, and the lack of information or misinformation. From there, we began ideating solutions to the WHO mandates.

Ideas:
- Visual reminders (e.g., posters or floor mats)
- Hand washing travel kits
- Hand washing stations
- Set an alarm or reminder

How might we make it easier for people to wash their hands frequently?

How might we make it easier for people to not touch their faces?

Ideas:
- Video on how easily germs spread
- Know how germs are transmitted (e.g., wearing gloves in the store is not a good idea)

How might we make it easier for people to maintain social distancing?

Ideas:
- Leverage technology for reminders (e.g., create an app to measure distance)
- User-friendly distance markers

How might we make it easier for people to practice respiratory hygiene?

Ideas:
- Make an anti-viral and anti-bacterial handkerchief or cloth
- Educate people on the consequences of not following respiratory hygiene

Share your ideas!

How are you social distancing?
Tweet us at @GlobalIDT
Email at globalid@uw.edu
CREATING AND TESTING SOLUTIONS TO MAKE IT EASIER TO FOLLOW SOCIAL DISTANCING GUIDELINES

Prototyping is an important step in the design thinking process because it allows us to test solutions, while continuing to learn and empathize from our users. Students at the GID Lab Mailyn Abon, Abdul Abubakar, Anh Lam, and Christopher Sim, working with Program Administrator Krissy Kimura, began the process with low-fidelity prototyping. This included basic sketches and supplies we could find at home such as pipe cleaners and aluminum foil. After creating a simple prototype, we tested with family and friends, which helped to uncover several usability issues and questions.

Based on feedback the team moved to create higher fidelity prototypes of digital self-assessment tools and apps to maintain social distancing using tools like AdobeXD and Figma (see examples to the right).

One idea was to leverage technology for reminders and distance makers to maintain social distancing. A smart watch app could alert people when they got too close (to the left). A camera integration (below) could show what six feet apart looks like. Initial feedback identified the camera integration as potentially more inclusive as smart phones become more ubiquitous in society. What also emerged from user feedback was that pulling out your phone to measure distance while grocery shopping or in a hurry could become cumbersome.

**SHARE YOUR SOLUTIONS!**
What are you doing to make it easier to follow social distancing guidelines?

Tweet us at @GlobalIDT
Email at globalid@uw.edu
CREATING AND TESTING SOLUTIONS TO MAKE IT EASIER TO FOLLOW SOCIAL DISTANCING GUIDELINES

In addition to the digital app or browser based prototypes, the team created several physical prototypes. This included a floor mat reminder, public access to black lights to see bacteria, and wearables (a ring or bracelet) to prevent you from touching your face (to the right). We found that while the wearables are easy to wear throughout the day, they might get annoying—especially when eating.

Another prototype was a simple flyer (see below) designed in Canva asking passersby: “Do you need to wash your hands?” When testing this prototype, users appreciated the language because it was simple and easy to understand, without being prescriptive. Instead of telling people what to do, the flyer provided a gentle reminder.

In reflecting on this experience as a team, we were impressed with the wide variety of prototypes we came up with to make it easier for people to follow social distancing mandates. If we could do this again, we would want to conduct more user research at the onset so we could better understand our users and create personas to guide our work. We would also want to look into more low-cost and non-digital solutions so as to be inclusive and accessible to all.
MEET THE TEAM

WHY DO YOU LOVE THE GID LAB?

“I love the energy creative problem solving unleashes. The GID Lab is an exciting and inclusive place where students across disciplines solve real world challenges. Empathy and diligence get us to the right question--the most arduous yet rewarding part.”

DR. DIVYA MCMILLIN
Professor of Global Media Studies and Executive Director

“I love the Lab because it gives students the opportunity to apply design thinking to real challenges in our community. It equips them with the skills they need to be successful global citizens.”

KRISSEY KIMURA
Program Administrator

“Design is fundamentally about problem solving, but you can’t solve everything. The trickiest bit is picking the right problems. The GID Lab helps students and community groups define and solve problems.”

DREW BAMFORD
VP, HTC Creative Labs

“I applied to the GID Award because it seemed like a good opportunity to explore design thinking while gaining the hands-on experience I’ve been needing to help get my foot in the door of User Experience.”

MAILYN ABOON
Information Technology Senior

“What I love the most about the GID Lab is that it provides me with an opportunity to showcase and refine my creative ability while working on meaningful projects.”

ABDUL ABUBAKAR
Technical Communication Junior

“My goal in applying to the GID Award was so I could learn creative problem solving and apply it to developing innovative solutions to help both locally and globally.”

CHRISTOPHER SIM
Communication and Applied Computing Senior

“The GID Lab provides me an opportunity to leverage the design thinking process to empower local organizations to solve problems--like affordable housing--that affect our community.”

ANH LAM
Healthcare Leadership Senior