REMS 2019 Project Description

**Participatory Design in Stigmatized Contexts**

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**Background**
Without active inclusion of diverse perspectives in the design of pervasive computing for health and wellbeing, these technologies will exclusively help the privileged. Marginalized, stigmatized, and underserved populations should participate in the human-centered design of emerging technologies. An inclusive participatory design process can be facilitated through a mutually beneficial partnership between end users and researchers.

**Project Goals**
Participatory design commonly involves eliciting input and inviting co-design through sketching and iterative prototyping. This process is meant to enable meaningful design experiences for both participants and researchers, but these broad activities can be difficult to apply in practice. Moreover, the activities of participatory design become more difficult to apply effectively across a variety of populations. Pervasive computing has notably tackled challenging health and social issues affecting a diverse range of populations—including children with autism, older adults experiencing physical or cognitive impairments, individuals with traumatic brain injury, individuals with limited technology experience, residents of low-income communities, and patients with varying literacy.

As we continue to engage diverse populations in the participatory design process, we need to critically reflect on how inclusive and effective our methods are. From the early stages of the design process, how do we engage a specific population in ideation, iteration, prototyping, and evaluation? How do we provide equitable and meaningful experiences for participants, while ensuring rigorous and innovative data collection for researchers?

**Student Role**
The student will explore the following key challenges of participatory design:

- Gaining access, recruiting, and ensuring participation can be particularly challenging when working with stigmatized populations who may be hesitant to trust researchers.
- Planning for a mutually beneficial relationship before, during, and after the design process is critical when working with underserved populations, otherwise we risk making these individuals feel used and abandoned after data collection.
- Creating engaging research experiences for participants while also gaining rich insights is especially helpful when working with populations who do not perceive themselves as designers.

The student will engage with this issues through: literature review; interviewing researchers who specialize in participatory design with diverse populations; conducting needs assessment and
empathy building with diverse populations; and ideating then evaluating innovative ways to conduct participatory design workshops.

**Mentorship Plan**
The student will work as part of a collaborative research group, receiving support and feedback on a weekly basis from their faculty advisor as well as peers from diverse backgrounds. The student will be encouraged to take initiative on designing their own study, and performing data collection and analysis, with frequent feedback from the faculty advisor to help them iterate. There will also be many opportunities to work on oral and written communication skills.