



SEAS THE DAY

Department:

Systems Design Engineering and Applied Health Sciences

Program:

Postdoctoral Fellowship, PhD

Project Type:

Industry Partnership

Industry Partners:

Schlegel Villages and RealityWell (VR Vision)

Project co-researchers:

Faculty members: Dr. Jennifer Boger, Systems Design Engineering; Dr. Michael Barnett-Cowan, Kinesiology and Health Sciences; Dr. Shi Cao, Systems Design Engineering, Dr. Laura Middleton, Kinesiology and Health Sciences.

Graduate researchers:

Aysha Basharat, Kinesiology and Health Sciences; Yirou (Chris) Li, Systems Design Engineering



DR. JOHN EDISON MUÑOZ CARDONA AND SAMIRA MEHRABI

Together with older adults, game designers, exercise professionals, kinesiologists, engineers and industry partners, Mehrabi, Muñoz, and their collaborators have designed Seas the Day an immersive experience created to promote physical activity among older adults living with cognitive impairments.

Advancements in personalized healthcare using virtual reality (VR) have created opportunities to use games to support a healthy lifestyle. The multi-stakeholder team designed their exergames collaboratively to create attractive, effective, usable and accessible experiences.

Seas the Day uses virtual activities such as Tai Chi, rowing and fishing to encourage players to move their upper limbs, targeting exercises that foster flexibility, strength and cardiorespiratory fitness. This project demonstrates how different stakeholders can contribute to the design of therapeutic games that consider the complex preferences of under-represented users.

Interesting fact: The team created a dolphin in the game to encourage participants to row in the virtual environment. The idea came from a physical therapist who acted as a co-designer throughout the research.



For more information scan this QR code.

