



# Virtual Experience Research Accelerator



UNIVERSITY OF CENTRAL FLORIDA

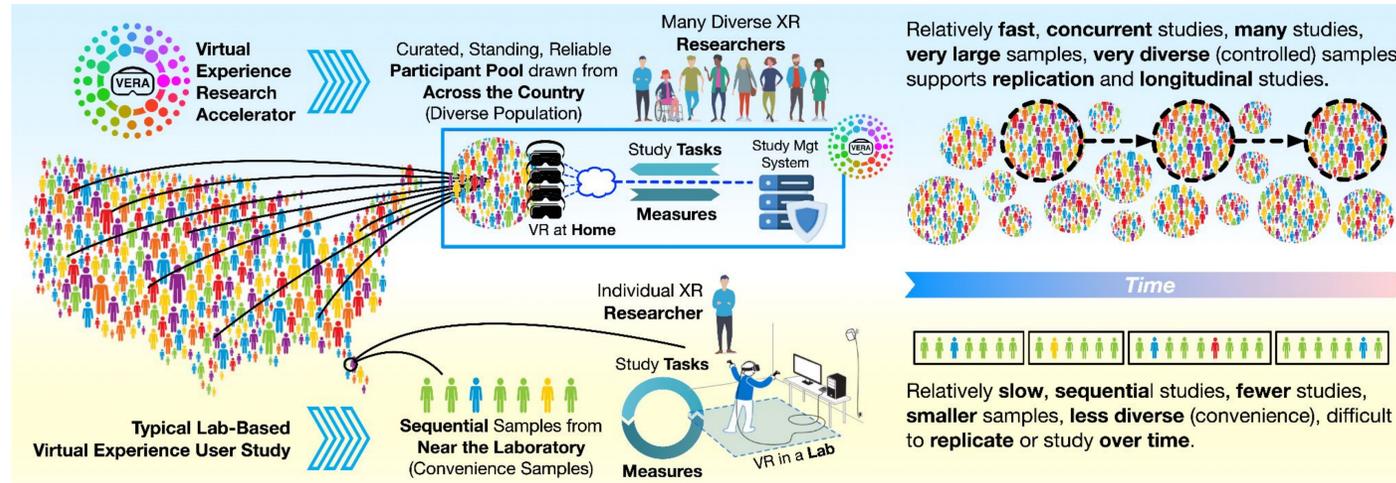


Principal Investigators: **Profs. Greg Welch (Lead), Shiri Azenkot, Jeremy Bailenson, Gerd Bruder, Tabitha Peck, and Valerie Jones Taylor**  
 Co-investigators: **Profs. Jonathan Beever, Nicholas Alvaro Coles, Carolina Cruz-Neira, John Murray, and Rui Xie**  
 Director of Development and Operations: **Dr. Ali Haskins Lisle**

NSF 2023 CIRC PI Meeting  
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## OVERVIEW

- Large-scale human-machine system for distributed extended reality (XR) human subjects research
- Research Infrastructure Goals
  - **Standing** participant pool
  - **Large** and **diverse** samples
  - **Accessible** interfaces
  - **Rapid** execution
  - **Replication** and **longitudinal** studies
  - **Controlled data collection**
  - **Shared data** — free or very low cost
- Project Goals
  - Shared purpose and responsibility
  - Community engagement throughout
  - Diverse, equitable, and inclusive operations
  - Inspire next-gen researchers



### MISSION

*To serve the community of XR researchers by providing tools to accelerate and improve the quality of their human subjects research, building and sustaining a diverse and inclusive collaborative community of XR researchers, and fostering the next generation of XR researchers.*

## EXAMPLE ACTIVITIES

- Hired Director of Development & Operations
- Established Community Advisory Board
- Began search/hiring of staff
- Initiated requirements analysis
- Began establishment of area leads
- Began formation of community committees
- Community meetings / sessions
  - EuroXR 2023
  - XR Access 2023
  - IEEE VR 2022 Panel & Discussion
  - IEEE ISMAR 2021 Panel & Discussion

## UNFORESEEN CHALLENGES

- Different **real spaces** (e.g., shape and size)
- Different **people** (e.g., people with disabilities)
- Different **equipment** (e.g., rates, units, DOF)

## DATA NEEDS

- Eliminate **real-virtual space confounds**
- Make **data** from all people **comparable**
- **De-identification**
- **Data completeness** and **data longevity**

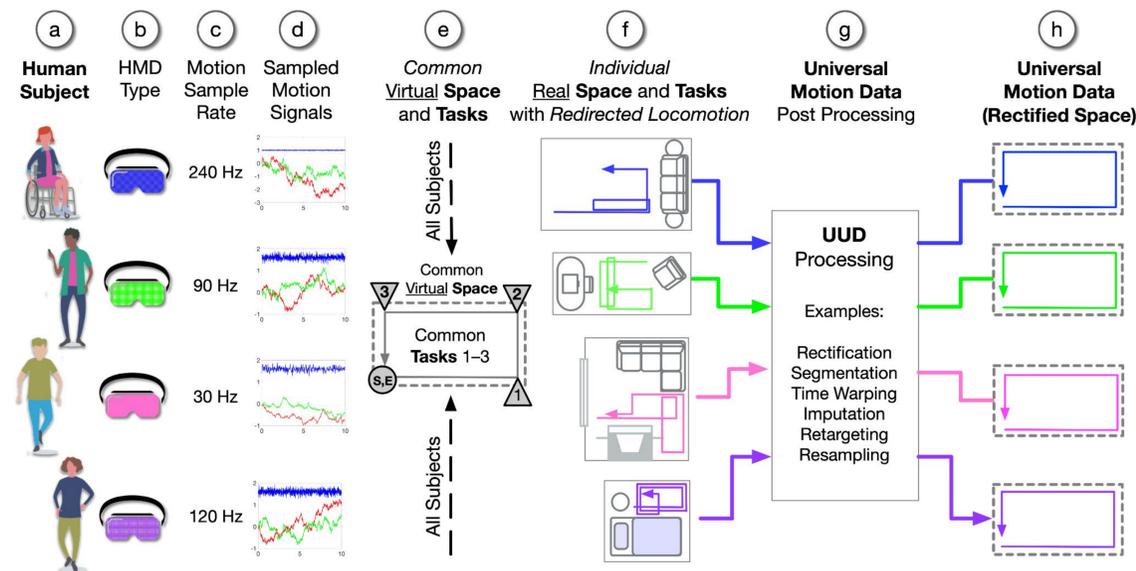
### LARGE PARTICIPANT POOL

### REPRESENTATIVE POPULATION

## UCF CS SENIOR DESIGN PROJECT

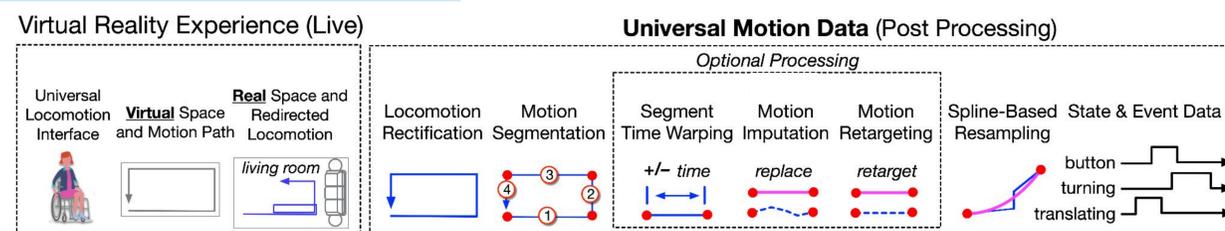
- Universal Locomotion Interface
- Parsa Baghaie, Corey Clements, Josh Federmann, Adam Lei, Christian Merino, and Oliver Wacker

## UNIVERSAL USER DATA (UUD)



### RAPID STUDY COMPLETION AND REPLICATION

## PLANNED APPROACH



## CONTACT

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