



College of Nursing

UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

HomeSHARE: Home-based Smart Health Applications across Research Environments

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Challenge

Lack of smart home and wearable technology research infrastructure prevents investigators from diverse disciplines from answering research questions that can generalize to larger populations.

Researchers typically:

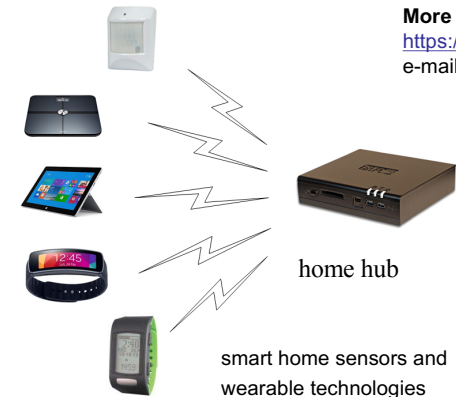
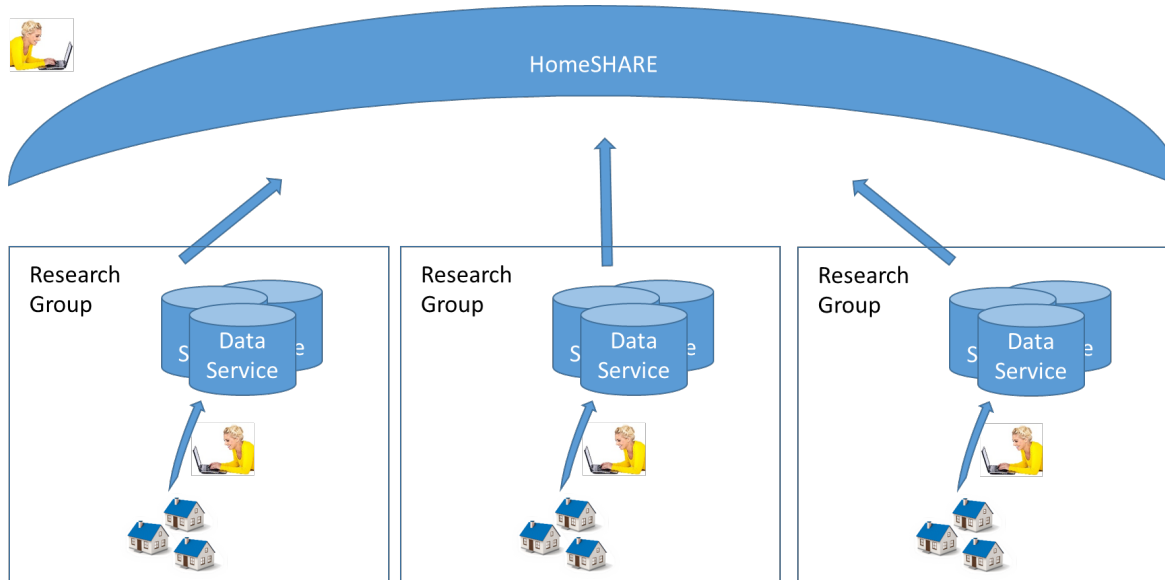
- 1) Conduct small-scale feasibility studies
- 2) Recruit participants through convenience sampling
- 3) Expend substantial resources to build or customize technologies

Efforts often:

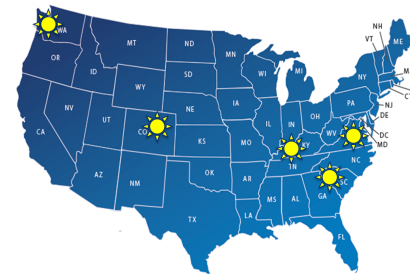
- 1) Fail to translate or scale outside their original settings
- 2) Result in systems that cannot be reused beyond single experiments
- 3) Miss opportunities to fully capitalize on research dollars

Solution

The Home-based Smart Health Applications across Research Environments (HomeSHARE) initiative is a multi-site collaboration that seeks to develop a geographically distributed smart homes testbed with input from informatics, gerontology, and computer science research communities.



More information:
<https://crihomeshare.wordpress.com/>
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HomeSHARE sites from East to West
University of Washington, University of Colorado Anschutz, Indiana University, Clemson University, University of Virginia

Value Proposition

- Standardize support for data collected by smart home and wearable devices
- Standardize data collection protocols across research environments
- Provide access to large data sets
- Enable enrollment of more diverse study populations
- Create common governance policies for researchers that cover criteria for participation, shared management responsibilities, and data control/sharing agreements

What we need to TPP

- Recommendations for features that HomeSHARE should support
- Data security strategies for smart home and wearable technologies at the device, home hub, and server levels

Acknowledgements

This material is based upon work supported by the National Science Foundation (NSF) under Grant Nos. 1625451 (UW), 1629202 (CU), 1629468 (IU), 1629437 (Clemson). Opinions, findings, conclusions, and recommendations expressed are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.