Rehabilitation Engineering Research Center on Technologies to Support Successful Aging with Disability

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Publications

Journal Publications
(Submitted)
A Multimodal Anomaly Detector for Robot-Assisted Feeding Using an LSTM-based Variational Autoencoder, Daehyung Park, Yuuna Hoshi, and Charles C. Kemp, [Submitted to] IEEE Robotics and Automation Letters (RA-L), 2018. [Under Review]

(In press)
Mitzner, T.L., Sanford, J. A., & Rogers, W. A. (in press). Closing the capacity-ability gap: Using technology to support aging with disability. *Innovation in Aging*.

(Published)
Lee, S. J., Mehta-Desai, R., Oh, K., Sanford, J. and Prilutsky, P. I. (2018). Effects of bilateral swing-away grab bars on the biomechanics of stand-to-sit and sit-to-stand toilet transfers. *Disability and Rehabilitation: Assistive Technology.* Doi: 10.1080/17483107.2018.1447605

Erickson, Z., Collier, M., Kapusta, A. & Kemp, C. C. (2018) Tracking human pose during robot-assisted dressing using single-axis capacitive proximity sensing. *IEEE Robotics and Automation Letters, 3(3)* 2245-52. Doi: 10.1109/LRA.2018.2812912

Park, D., Kim, H., & Kemp, C. C. (2018). Multimodal anomaly detection for assistive robots. *Autonomous Robots.* Doi: 10.1007/s10514-018-9733-6

Bhattacharjee, T., Clever, H. M., Wade, J. & Kemp, C. C. (2018). Multimodal tactile perception of objects in a real home. *IEEE Robotics and Automation Letters, 3(3)*, 2523-2530.

Stuck, R. E., & Rogers, W. A. (2018). Older adults' perceptions of supporting factors of trust in a robot care provider. *Journal of Robotics*, 18. Doi: 10.1155/2018/6519713.

Singleton, J. L., Remillard, E. T., Mitzner, T. L., & Rogers, W. A. (2018). Everyday technology use among older deaf adults. *Disability and Rehabilitation: Assistive Technology*. doi:10.1080/17483107.2018.1447609

Remillard, E. T., Fausset, C. B., Fain, W. B. (2017). Aging with mobility impairment: Maintaining activities of daily living via selection, optimization, and compensation. *The Gerontologist*. doi:10.1093/geront/gnx186

Lee, S.J., Sanford, J., Calkins, M., Melgen, S., Endicott, S., and Phillips, A. (2017). Beyond ADA accessibility requirements: Meeting seniors' needs for toilet transfers, *Health Environments Research and Design Journal*, 1-13.

Barg-Walkow, L. H., Harrington, C. N., Mitzner, T. L., Hartley, J. Q., & Rogers, W. A. (2017). Understanding older adults' perceptions of and attitudes towards exergames. *Gerontechnology, 16*(2), 81-90. https://doi.org/10.4017/gt.2017.16.2.003.00

Wade, J., Bhattacharjee, T., Williams, R. D., & Kemp, C. C. (2017). A force and thermal sensing skin for robots in human environments. *Robotics and Autonomous Systems, 96*, 1-14.

Rogers, W. A., & Mitzner, T. L. (2017). Envisioning the future for older adults: Autonomy, health, well-being, and social connectedness with technology support. *Futures, 87*, 133-139.

Mitzner, T. L., Stuck R., Hartley, J. Q., Beer, J. M., & Rogers, W. A. (2017). Acceptance of televideo technology by adults aging with a mobility impairment for health and wellness interventions. *Journal of Rehabilitation and Assistive Technologies Engineering, 4*, 1-12.

Mitzner, T.L, & Dijkstra, K. (2017). Evaluating user-centered design of E-health for older adults. In *Health Care Delivery and Clinical Science: Concepts, Methodologies, Tools, and Applications* (pp. 338–359). doi:10.4018/978-1-5225-3926-1.ch016

Preusse, K. C., Gonzalez, E. T., Singleton, J. L., Mitzner, T. L., & Rogers, W. A. (2016). Understanding The Needs of Individuals Aging with Impairment. *International Journal of Human Factors and Ergonomics, 4*(2), 144-168. doi:10.1504/IJHFE.2016.082246

Gonzalez, E. T., Sanford, J. A., Mitzner, T. L., & Rogers, W. A. (2016). Technologies to support aging with disability. *Certified Senior Advisor (CSA) Journal, 67*(3), 4-9.

Harris, F., Yang, H. & Sanford, J. A (2015). Physical environmental barriers to community mobility in older and younger wheelchair users. *Topics in Geriatric Rehabilitation, 31 (1):* 42-51.

Beer, J. M., Mitzner, T. L., Stuck, R. E., & Rogers, W. A. (2015). Design considerations for technology interventions to support social and physical wellness for older adults with disability. *International Journal of Automation and Smart Technology (AUSMT), 5*(4), 249-264. doi:10.4017/gt.2015.14.1.004.00

Harrington, C. N., Mitzner, T. L., & Rogers, W. A. (2015). Understanding the role of technology for meeting the support needs of older adults in the USA with functional limitations. *Gerontechnology, 14*, 21-31.

Echt, K. V. & Saunders, G. H. (2014). Accommodating dual sensory loss in everyday practice. *Perspectives on Gerontology, 19*(1), 4-16.

Book Chapters
(Submitted)
Sanford, J.A. (submitted). Product Usability Testing and Outcomes: What Works? For Whom? and Why? (A. Mihailidis & R. Smith, eds.), *Rehabilitation Engineering Principles and Practice*, Boca Raton, FL: CRC Press.

(In press)
Ruzic, L. & Sanford, J.A. (in press). "Universal Design Mobile Interface Guidelines (UDMIG) for Aging Population," in S. Freeman, H.R. Marston, & C. Musselwhite (eds.), *Mobile eHealth*, Springer-Verlag Publishing, London, U.K.

Bixter, M., Blocker, K.A., & Rogers, W. A. (in press). Enhancing social engagement of older adults through technology. In R. Pak & A. McLaughlin (Eds.), *Aging, Technology, and Health*. Elsevier.

Barg-Walkow, L. H., Fausset, C. B., & Rogers, W. A. (in press). Understanding the relevance of human factors/ergonomics to neuropsychology practice and the assessment of everyday functioning. In T. D. Marcotte, & I. Grant (Eds.), *Neuropsychology of everyday functioning (*2nd edition*)*. NY: Guilford Press.

(Published)
Sanford, J. A. & Hernandez, S. C. (2017). "Universal Design, Design for Aging in Place, and Habilitative Design in Residential Environments" in Health and Wellbeing for Interior Architecture, D. Kopec (ed.), Routledge Publishing, London, UK.

Rogers, W. A., & Mitzner, T. L. (2017). Human-robot interaction for older adults. *Encyclopedia of Computer Science and Technology* (2nd edition, pp. 1-11). Taylor and Francis. doi: 10.1081/E-ECST2-140000160

Walker, B. N., Tomlinson, B. J., & Schuett, J. H., (2017). Universal Design of Mobile Apps: Making Weather Information Accessible. In M. Antona and C. Stephanidis (Eds.): *Universal Access in Human-Computer Interaction. Design and Development Approaches and Methods, Part I*, (pp. 113-122). Springer International Publishing.

Liu, Y. E. & Sanford, J. A. (2017). Assess User Needs for Time‐related Information to Design an Airport Guide System. In M. Antona and C. Stephanidis (Eds.): *Universal Access in Human-Computer Interaction. Human and Technological Environments, Part III*, (pp. 300-307). Springer International Publishing.

Ruzic, L. & Sanford, J. A. (2017). Usability of mobile consumer applications for individuals aging with Multiple Sclerosis. In M. Antona and C. Stephanidis (Eds.): *Universal Access in Human-Computer Interaction. Design and Development Approaches and Methods, Part I*, (pp. 258-276). Springer International Publishing.

Sanford, J. A. (2017). Achieving Universal Design: One if by Product Two if by Process and Three if by Panacea. In M. Antona and C. Stephanidis (Eds.): *Universal Access in Human-Computer Interaction. Design and Development Approaches and Methods, Part I*, (pp. 105-112). Springer International Publishing.

Harrington, C. N., Ruzic, L., & Sanford, J. A. (2017). Universally Accessible mHealth Apps for Older Adults: Towards Increasing Adoption and Sustained Engagement. In M. Antona and C. Stephanidis (Eds.): *Universal Access in Human-Computer Interaction. Human and Technological Environments, Part III*, (pp. 3-12). Springer International Publishing.

Sanford, J. A. (2016). Wayfinding design for all users. In R. H. Hunter, L. A. Anderson & Belza, B.L. (Eds.), *Community Wayfinding: Pathways to Understanding*, (81-101). Springer International Publishing.

Mayhorn, C. B., Rogers, W. A., & Echt, K.V. (2016). Designing technology for older adults: Augmenting usefulness and usability via cognitive support. In S. Kwon (Ed.), *Gerontechnology: Research, Practice, and Principles in the Field of Technology and Aging* (2nd edition; pp. 389-414). NY: Springer.

Ruzic, L., Lee, S., Liu, Y. E., & Sanford, J. A. (2016) Development of Universal Design Mobile Interface Guidelines (UDMIG) for aging population. In M, Antona & C, Stephanidis (Eds.), *Universal Access in Human-Computer Interaction. Methods, Techniques, and Best Practices* (pp. 98-108). Springer International Publishing.

Sanford, J. A., & Gonzalez, E. T. (2016). RERC TechSAge: Making a difference to the lives of older adults with disability through design and technology. In J, Zhou & G, Salvendy (Eds.), *Human Aspects of IT for the Aged Population. Design for Aging* (pp. 82-91). Springer International Publishing.

Stark, S., Sanford, J. A., & Keglovits, M. (2015). "Environmental Performance Enablers and their Impact on Occupational Performance," in E. Xian and C. Baum (Eds.), Occupational Therapy, Performance, Participation and Well Being, 4th Edition, Slack Incorporated.

Beer, J. M., & Rogers, W. A. (2014). Enabling older adults to interact with robots: Why input methods are critical for usability. A. Neustein (Ed.), *Speech and Automata in Health Care.* Berlin, Boston: DeGruyter.

Sanford, J.A. The SmartBathroom: UD through integrating physical and digital worlds; in Caltenco, H., Hedvall, P.O., Larsson, A., Rassmus-Grohn, K. & Rydeman, B. (eds.). Universal Design 2014: Three Days of Creativity and Diversity. Assistive Technology Research Series, Amsterdam, NL: IOS Press (2014).

Other Publications (e.g., proceedings, newsletters)
(Submitted)

Park, D., Hoshi, Y., & Kemp, C. C. (submitted). A multimodal anomaly detector for robot-assisted feeding using an LSTM-based variational autoencoder. *IEEE Robotics and Automation Letters (RA-L), 2018*.

(In press)
Remillard, E. T., Mitzner, T L., Singleton, J. L., & Rogers, W. A. (in press). A qualitative approach to understanding user needs for aging with disability*. Proceedings of the Third International Conference on Universal Accessibility in the Internet of Things and Smart Environments (SMART ACCESSIBILITY 2018).*

Sanford, J.A., Guhathakurta, S., Melgen, S., Zhang, G. (in press). Utility of a mobile route planning app for people aging with disability. *Proceedings of the Third International Conference on Universal Accessibility in the Internet of Things and Smart Environments (SMART ACCESSIBILITY 2018).*

Rébola, C. (in press). Design criteria to advance technologies for the aging population. *Proceedings of the Third International Conference on Universal Accessibility in the Internet of Things and Smart Environments (SMART ACCESSIBILITY 2018).*

Ruzic, L., Mahajan, H. P., & Sanford, J. A. Universally designed mHealth app for individuals aging with multiple sclerosis. *Proceedings of the Third International Conference on Universal Accessibility in the Internet of Things and Smart Environments (SMART ACCESSIBILITY 2018).*

(Published)

Stuck, R. E., Chong, A. W., Mitzner, T.L., & Rogers, W. A. (2017). Medication management apps: Usable by older adults? *Proceedings of the Human Factors and Ergonomics Society 61st Annual Meeting* (pp. 1141-1144). Santa Monica, CA: Human Factors and Ergonomics Society. doi:10.1177/1541931213601769

Park, D., Kim, H., Hoshi, Y., Erickson, Z., Kapusta, A., & Kemp, C. C. (2017). A multimodal execution monitor with anomaly classification for robot-assisted feeding. Proceedings of the *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2017.* Available from: http://ieeexplore.ieee.org

Wu, X., Thomas, R. C., Drobina, E. C., Mitzner, T. L., & Beer, J. M. (2017). Telepresence heuristic evaluation for adults aging with mobility impairment. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting, 61*(1), 16-20.

Upadhaya, R., Oswal, A., Jones, B. (2017). Addressing the alerting needs of older adults to age in place. In T. Ahram and C. Falcão (Eds.): *Advances in Usability and User Experience. AFHE 2017. Advances in Intelligent Systems and Computing*, 607, (pp. 350-356) Springer International Publishing: Cham. doi:10.1007/978-3-319-60492-3_33

Jones, B. D., Pandey, S., Presti, P., Taylor, R., Natarajan, P., Mahajan, S., Mahajan, H., & Sanford, J. A. (2017). *SmartBathroom: Developing a smart environment to study bathroom transfers*. In *Rehabilitation Engineering Society of North America (RESNA) Annual Conference 2017*. Online proceedings available from: https://www.resna.org

Erickson, Z., Clegg, A., Yu, W., Turk, G., Liu, C. K., & Kemp, C. C. (2017). What does the person feel? Learning to infer applied forces during robot-assisted dressing. In *2017 IEEE International Conference on Robotics and Automation (ICRA)*, 6058-6065. doi:10.1109/ICRA.2017.7989718 Available from: http://ieeexplore.ieee.org

Yu, W., Kapusta, A., Tan, J., Kemp, C. C., Turk, G. & Liu, C. K. (2017). Haptic simulation for robot-assisted dressing. In *2017 IEEE International Conference on Robotics and Automation (ICRA)*, 6044-6051. Doi: 10.1109/ICRA.2017.7989716 Available from: http://ieeexplore.ieee.org

Stuck, R. E., Hartley, J. Q., Mitzner, T. L., Beer, J. M., & Rogers, W. A. (2017). Understanding attitudes of adults aging with mobility impairments toward telepresence robots. Proceedings of the 12th ACM/IEEE International Conference on Human-Robot Interaction [Late Breaking Report], 293-294.

Wu, X., Thomas, R., Drobina, E., Mitzner, T. L., & Beer, J. M. (2017). An evaluation of a telepresence robot: User testing among older Americans with mobility impairment. Proceedings of the 12th ACM/IEEE International Conference on Human-Robot Interaction [Late Breaking Report], 325-326.

Kapusta, A., Yu, W., Bhattacharjee, C., Liu, K., Turk, G. & Kemp. C. C. (2016). Data-driven haptic perception for robot-assisted dressing. RO-MAN 2016 Workshop on behavior adaptation, interaction and learning for assistive robots (BAILAR 2016).

Chow, K. & Kemp, C. C. (2016). Robotic repositioning of human limbs via model predictive control. In *2017 IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN)*, pp. 473-480. doi: 10.1109/ROMAN.2016.7745161 Available from: http://ieeexplore.ieee.org

Kapusta, A., Chitalia, Y., Park, D., & Kemp, C. C. (2016). Collaboration between a robotic bed and a mobile manipulator may improve physical assistance for people with disabilities. RO-MAN 2016 Workshop on behavior adaptation, interaction and learning for assistive robots (BAILAR 2016).

Levy, L., Solomon, R., Johnson, J., Wilson, J., Lambeth, A., Gandy, M., Moore, J., Way, J., & Liu, R. (2016). Grouches, extraverts, and jellyfish: Assessment validity and game mechanics in a gamified assessment. Proceedings of the 1st international joint conference of the Digital Games Research Association (DiGRA) and the Foundations of Digital Games (FDG) conference. Available online from: https://www.researchgate.net/publication/303856627

Liu, Y. E., Harrington, C. N., Melgen, S., & Sanford, J. A. (2016). GatePal—Universal design for airport navigation to allow departing travelers to stay informed. In M, Antona & C, Stephanidis (Eds.), *Universal Access in*

Human-Computer Interaction. Users and Context Diversity (pp. 586-594). Springer International Publishing.

Wu, X., Stuck, R. E., Mitzner, T. L., Rogers, W. A., & Beer, J. M. (2016). Televideo for older adults with mobility impairment: A needs assessment. In *Rehabilitation Engineering Society of North America (RESNA) Annual Conference 2016*. Online proceedings available from: https://www.resna.org

Grice, P. M., Chitalia, Y., Rich, M., Clever, H. M., & Kemp, C. C. (2016). Autobed: Open hardware for accessible web-based control of an electric bed. In *Rehabilitation Engineering Society of North America (RESNA) Annual Conference 2016*. Online proceedings available from: https://www.resna.org

Sanath, A. A., Mahajan, H., Gonzalez, E. T., Sanford, J. A., & Fain, W. B. (2016). Analysis of the effect of a rear wall grab bar configuration on the fall risk associated with toilet transfer in older adults with mobility impairment. In *Rehabilitation Engineering Society of North America (RESNA) Annual Conference 2016*. Online proceedings available from: https://www.resna.org

Grice, P. M. & Kemp, C. C. (2016). Assistive mobile manipulation: Designing for operators with motor impairments. In *Robotics: Science and Systems (RSS) 2016.* Available from https://allrobotshelping.wordpress.com/

Kapusta, A. & Kemp, C. C. (2016). Optimization of robot configurations for assistive tasks. In *Robotics: Science and Systems (RSS) 2016.* Available from http://www.roboticsproceedings.org

Park, D., Erickson, Z., Bhattacharjee, T., & Kemp, C. (2016). Multimodal execution monitoring for anomaly detection during robot manipulation, In *2016 IEEE International Conference on Robotics and Automation (ICRA),* (pp. 407-414). doi: 10.1109/ICRA.2016.7487160 Available from http://ieeexplore.ieee.org

Park, D., Kim, Y., Erickson, Z., and Kemp, C. C. (2016). Towards assistive feeding with a general-purpose mobile manipulator, In *2016 IEEE International Conference on Robotics and Automation (ICRA),* arXiv:1605.07996 Available from https://arxiv.org

Bhattacharjee, T. Wade, J., Chitalia, Y., & Kemp, C. C. (2016). Data-driven thermal recognition of contact with people and objects, *2016 IEEE Haptics Symposium (HAPTICS)*, (pp. 297-304). doi:10.1109/HAPTICS.2016.7463193 Available online from http://ieeexplore.ieee.org/

Preusse, K. C., Gonzalez, E. T., Singleton, J. L., Mitzner, T. L., & Rogers, W. A. (2016). Needs assessment for individuals aging with impairment: Findings from subject matter expert interviews. In D. de Waard, K.A. Brookhuis, A. Toffetti, A. Stuiver, C. Weikert, D. Coelho, D. Manzey, A.B. Ünal, S. Röttger, and N. Merat (Eds.), Proceedings of the Human Factors and Ergonomics Society Europe Chapter 2015 Annual Conference (pp. 21-33). ISSN 2333-4959 (online). Available from http://www.hfes-europe.org/

Gomez-Gurley, K., McLaughlin, A. C., Gandy Coleman, M., & Allaire, J. C. (2015). Accessibility in serious games for adults aging with disability. In J, Zhou & G, Salvendy (Eds.), *Human Aspects of IT for the Aged Population. Design for Aging* (pp. 61-71). Springer International Publishing.

Harrington, C. N., Hartley, J. Q., Mitzner, T. L., & Rogers, W. A. (2015). Assessing older adults' usability challenges using Kinect-based exergames. In J, Zhou & G, Salvendy (Eds.), *Human Aspects of IT for the Aged Population. Design for Aging* (pp. 488-499). Springer International Publishing.

Sanford, J. A. (2015). Universal design as an approach to technology intervention for seniors. In J, Zhou & G, Salvendy (Eds.), *Human Aspects of IT for the Aged Population. Design for Aging* (pp. 115-122). Springer International Publishing.

Rebola, C. B. (2015). Older Adults Technology Assessment, Needs and Use for Health Applications. *Proceedings of the IEEE International Conference on Healthcare Informatics*, 452.

Kapusta, A., Park, D. and Kemp, C. C. (2015) Task-centric selection of robot and environment initial configurations for assistive tasks, *Intelligent Robots and Systems (IROS), 2015 IEEE/RSJ International Conference on*, (pp. 1480-1487). doi:10.1109/IROS.2015.7353563 Available online from http://ieeexplore.ieee.org/

Gonzalez, E., Fausset, C. B., Foster, A., Cha, G. & Fain, W. B. (2015). Moving in, out and around the home: solutions from older adults with long-term mobility impairment. In *Rehabilitation Engineering Society of North America (RESNA) Annual Conference 2015*. Online proceedings available from: https://www.resna.org

Levy, L., Solomon, R., Moore, J., Way, J., Liu, R., & Gandy, M. (2015). Actions speak louder than words: An exploration of game play behavior and results from traditional assessments of individual differences. In *2015 Proceedings of Foundations of Digital Games*.

Bhattacharjee, T., Grice, P. M., Kapusta, A., Killpack, M. D., Park, D., & Kemp, C. C. (2014). A robotic system for reaching in dense clutter that integrates model predictive control, learning, haptic mapping, and planning. In *IROS 2014 workshop: 3rd Workshop on Robots in Clutter: Perception and Interaction in Clutter*.

Hawkins, K. P., Grice, P. M., Chen, T. L., King, C. H., & Kemp, C. C. (2014). Assistive mobile manipulation for self-care tasks around the head. In *IEEE Symposium on Computational Intelligence in Robotic Rehabilitation and Assistive Technologies* (pp. 16-25).

Marinelli, E. C., & Rogers, W. A. (2014). Identifying potential usability for XBOX 360 Kinect Exergames for older adults. *Proceedings of the Human Factors and Ergonomics Society 58th Annual Meeting* (pp. 1247-1251). Santa Monica, CA: Human Factors and Ergonomics Society.

Park, D., Kapusta, A., Hawke, J., & Kemp, C. C. (2014). Interleaving planning and control for efficient haptically-guided reaching in unknown environments. In *IEEE-RAS International Conference on Humanoid Robots (Humanoids)* (pp. 809-816).

Park, D., Kapusta, A., Kim, Y., Rehg, J. M., & Kemp, C. C. (2014). In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*.

Technical Reports and Papers

Fain, W. B., & Farmer, S. (2017). Development of personas for designing for individuals with mobility impairments (TechSAge-TR-1703). Atlanta, GA: Georgia Institute of Technology, Rehabilitation Engineering Research Center on Technologies to Support Successful Aging with Disability.

Fain, W. B., & Farmer, S. (2017). Challenges in the home for adults aging with mobility impairments (TechSAge-TR-1702). Atlanta, GA: Georgia Institute of Technology, Rehabilitation Engineering Research Center on Technologies to Support Successful Aging with Disability.

Fain, W. B., & Farmer, S. (2017). Medication adherence for older adults with disabilities (TechSAge-TR-1701). Atlanta, GA: Georgia Institute of Technology, Rehabilitation Engineering Research Center on Technologies to Support Successful Aging with Disability.

Mitzner, T. L., Bixter, M. T., & Rogers, W.A. (2016). Qualitative Research Procedures in the Human Factors and Aging Laboratory (HFA-TR-1601). Atlanta, GA: Georgia Institute of Technology, School of Psychology, Human Factors and Aging Laboratory.

Gonzalez, E. T., Mitzner, T. L., Sanford, J. A., & Rogers, W. A. (2016). TechSAge minimum battery: Overview of measures (TechSAge-TR-1601). Atlanta, GA: Georgia Institute of Technology, Rehabilitation Engineering Research Center on Technologies to Support Successful Aging with Disability.

Bryant, P., Vladimirova, E., & Homesley, M. (2016). Food for Thought project: Older adults' interaction with touchscreen. Internal report. Georgia Institute of Technology, Atlanta, GA.

Harrington, C. & Rogers, W. A. (2014). *An archival analysis of everyday task challenges for adults aging with disabilities* (TechSAge-TR-1401). Atlanta, GA: Georgia Institute of Technology, Rehabilitation Engineering Research Center on Technologies to Support Successful Aging with Disability.

McClellan, A., & Williams, C. (2014). *Visual accessibility analysis of Food for Thought*. Technical Report. North Carolina State University, Raleigh, NC.

Organized Symposia and Conferences
(Upcoming)
Rogers, W. A, (convener) (2018, May) Technology Design to Support Successful Aging with Disability. Symposium at the International Society for Gerontechnology 11th World Conference of Gerontechnology, St. Petersburg, FL. USA
Sanford. J. A. (chair) (2018, March). *UDT: Universal Design and Technology for Successful Aging with Disability*. Special track at SMART ACCESSIBILITY 2018, 3rd International Conference on Universal Accessibility in the Internet of Things and Smart Environments, Rome, Italy.

(Past)
Sanford, J. A. (chair) (2017, July). *Universal Access: Product, Process or Panacea*. Symposium at the 19th International Conference on Human Computer Interaction (HCII), Vancouver, Canada. Participants: Sanford, J. A., Ruzic, L., Liu, Y. E., Harrington, C. N., Walker, B. N., & Ceccacci, S.
Rogers, W. A., (chair), (2017, July). *Design of Technologies to Support Successful Aging with Disability*. Symposium at the International Association of Gerontology & Geriatrics, Gerontological Society of America 21st Annual Meeting, San Francisco, CA. Participants: Gonzalez, E. T., Fain, W. B., Gandy-Coleman, M., Sanford, J. A., & Rebola, C.
Sanford, J. A. & Gonzalez, E. T., (chairs), (2017, June). *Smart and Robotic Homes*. Workshop presentation at the Rehabilitation Engineering Society of North America (RESNA) Annual Conference, New Orleans, LA. Participants: Sanford, J. A., Jones, B. D., Rogers, W. A., & Kapusta, A.
Rogers, W A., (chair), (2017, June). *Meeting users' needs through technology: Guidance from policy and research.* Workshop presentation at the Rehabilitation Engineering Society of North America (RESNA) Annual Conference, New Orleans, LA. Participants: Rogers, W. A., & Gallagher, T. M.
Gonzalez, E. T., Sanford, J. A., Rogers, W. A., & Mitzner, T. M. (2017, March). RERC TechSAge State of the Science Conference. Georgia Institute of Technology, Atlanta, GA.
Phillips, C., Persaud, L., & Jones, B. (2016, November). *Aging and Technology Summit.* LeadingAge, Wireless RERC & Tools for Life: Assistive Technology Project, Georgia Tech | AMAC in Atlanta, GA
Rogers, W. A. (chair), (2016, November). *A Spotlight on Technologies for Individuals Aging with a Disability*. Symposium presentation at the Gerontological Society of America 69th Annual Meeting, New Orleans, LA. Participants: Elena Gonzalez, Ted Johnson, Tracy Mitzner, Jon Sanford; Discussant: Alex Mihailidis.
Sanford, J. A., (chair), (2016, July). Universal Access: Process, Product or Prodigy. Symposium presentation at Human Computer Interaction International 2016 (HCII 2015), Toronto, Canada.
Phillips, C., Persaud, L. & Jones, B. (2015, November). *Rapid Fire Innovation Design Practicum: Designing solutions to improve the lives of older adults*. Georgia Tech, Leading Age Technology and Aging Summit, Atlanta, GA.
Beer, J. (chair), *Assistive Technology for the Aging Population*. Symposium presentation at Human Computer Interaction International 2015 (HCII 2015), Los Angeles, CA.
Mitzner, T. L. (chair), *Technology Interventions for Older Adults*. Symposium presentation at Human Computer Interaction International 2015 (HCII 2015), Los Angeles, CA.
Whitlock, L. A., McLaughlin, A. C., Leidheiser, W., Gandy, M., & Allaire, J. C. (2014). *Know before you go: feelings of flow for older players depends on game and player characteristics.* Proceedings of the first ACM SIGCHI annual symposium on computer-human interaction in play (CHI PLAY '14).

Presentations

Conference Presentations
(Submitted)

(Upcoming)

Sanford, J. A., Mitzner, T. L., & Rogers, W. A. (accepted). T*he TechSAge Technology Intervention Model for Aging with or into Disability.* International Society for Gerontechnology 11th World Conference of Gerontechnology, St. Petersburg, FL. USA

Rebola C. (accepted). *Universal Design as a Strategy for Technology Design*. International Society for Gerontechnology 11th World Conference of Gerontechnology, St. Petersburg, FL. USA

Harris, M. T., Koon, L. M., Rogers, W. A. (accepted). *The potential for technology to support managing one's health while aging with an impairment.* International Society for Gerontechnology 11th World Conference of Gerontechnology, St. Petersburg, FL. USA

Gandy, M., Levy, L. M., Jones, B., Whi, D., & Nair, S. (accepted). *Using Augmented and Virtual Reality to Support Older Adults in Smart Homes*. International Society for Gerontechnology 11th World Conference of Gerontechnology, St. Petersburg, FL. USA

McGlynn, S. A., Hartley, J. Q., Mitzner, T. L., & Rogers, W. A. (accepted). *Guidance from Exercise Instructors for Designing Remotely-Led Classes for Older Adults with Mobility Impairments*. International Society for Gerontechnology 11th World Conference of Gerontechnology, St. Petersburg, FL. USA

(Past)

Farmer, Sarah (2018, April). *Medication adherence technologies for older adults aging with a disability*. Paper presentation at the 39th Southern Gerontological Society Annual Meeting, Lake Lanier, GA.

Rébola, C. (2018, March). *Design criteria to advance technologies for the aging population*. Symposium presentation at SMART ACCESSIBILITY 2018, 3rd International Conference on Universal Accessibility in the Internet of Things and Smart Environments, Rome, Italy.

Ruzic, L., Mahajan, H. P., & Sanford, J. A. (2018, March). *Universally designed mHealth app for individuals aging with multiple sclerosis*. Symposium presentation at SMART ACCESSIBILITY 2018, 3rd International Conference on Universal Accessibility in the Internet of Things and Smart Environments, Rome, Italy.

Remillard, E. T., Mitzner, T. L., Singleton, J. L., & Rogers, W. A. (2018, March). *A qualitative approach to understanding user needs for aging with disability*. Symposium presentation at SMART ACCESSIBILITY 2018, 3rd International Conference on Universal Accessibility in the Internet of Things and Smart Environments, Rome, Italy.

Sanford, J.A., Guhathakurta, S., Melgen, S., Zhang, G. (2018, March). *Utility of a mobile route planning app for people aging with disability.* Symposium presentation at SMART ACCESSIBILITY 2018, 3rd International Conference on Universal Accessibility in the Internet of Things and Smart Environments, Rome, Italy.

Alingu, F., Kumar, A., & Wilson, R. (2018, February). *The Ins and Outs of Developing an AT Lab*. Presentation at the 2018 Assistive Technology Industry Association in Orlando, FL.

Persuad, L. & Phillips, C. (2018, February). *Medicaid: A Look at Reuse in Current Programs*. Presentation at the 2018 Assistive Technology Industry Association in Orlando, FL.

Jacobs, B. & Perasud, L. (2018, February). *Accessing Your World: What's New in Environmental Control Technologies*. Presentation at the 2018 Assistive Technology Industry Association in Orlando, FL.

Kumar, A. & Wilson, R. (2018, February). *What to Wear? A Closer Look at Wearable Technology.* Presentation at the 2018 Assistive Technology Industry Association in Orlando, FL.

Bartlet, M., Jacobs, B., Levy, L., & Straub, J. P. (2017). Gaming for all: Accessibility features in video games. 2017 DragonCon Panel, Atlanta, Georgia.

Upadhaya, R., Oswal, A., Jones, B. (2017). *Addressing the alerting needs of older adults to age in place*. Paper presentation at the 8th International Conference on Applied Human Factors and Ergonomics (AHFE), Los Angeles, CA.

Walker, B. N., Tomlinson, B. J., & Schuett, J. H., (2017, July). *Universal Design of Mobile Apps: Making Weather Information Accessible*. Paper presentation at the 19th International Conference on Human Computer Interaction (HCII), Vancouver, Canada.

Harrington, C. N., Ruzic, L., & Sanford, J. A. (2017, July). *Universally Accessible mHealth Apps for Older Adults: Towards Increasing Adoption and Sustained Engagement*. Paper presentation at the 19th International Conference on Human Computer Interaction (HCII), Vancouver, Canada.

Sanford, J. A. (2017, July). *Achieving Universal Design: One if by Product Two if by Process and Three if by Panacea*. Paper presentation at the 19th International Conference on Human Computer Interaction (HCII), Vancouver, Canada.

Ruzic, L. (2017, July). *Usability of Mobile Consumer Applications for Individuals Aging with Multiple Sclerosis.* Paper presentation at the 19th International Conference on Human Computer Interaction (HCII), Vancouver, Canada.

Liu, Y. E. (2017, July). *Assess User Needs for Time-related Information to Design an Airport Guide System*. Paper presentation at the 19th International Conference on Human Computer Interaction (HCII), Vancouver, Canada.

Sanford, J. A., Guhathakurta, S., Melgen, S., & Zhang, G. (2017, July). *Application for Locational Intelligence and Geospatial Navigation v. 2.0*. Symposium presentation at the International Association of Gerontology & Geriatrics, Gerontological Society of America 21st Annual Meeting, San Francisco, CA.

Fain, B., Farmer, S., Owens, S., Fausset, C., & Foster, A. (2017, July). *Medication adherence facilitators and barriers for older adults with disabilities*. Symposium presentation at the International Association of Gerontology & Geriatrics, Gerontological Society of America 21st Annual Meeting, San Francisco, CA.

Gonzalez, E. T., Mitzner, T. L., Singleton, J. L., & Rogers, W. A. (2017, July). *Aging Concerns, Challenges, & Everyday Solution Strategies (ACCESS) of Individuals with Impairments*. Symposium presentation at the International Association of Gerontology & Geriatrics, Gerontological Society of America 21st Annual Meeting, San Francisco, CA.

Levy, L. & Gandy-Coleman, M. (2017, July). *Designing Serious Games for Older Adults*. Symposium presentation at the International Association of Gerontology & Geriatrics, Gerontological Society of America 21st Annual Meeting, San Francisco, CA.

Rebola, C. (2017, July). *Developing a Competition to Advance Technology Design for the Aging with Disability Population.* Symposium presentation at the International Association of Gerontology & Geriatrics, Gerontological Society of America 21st Annual Meeting, San Francisco, CA.

Gonzalez, E. T., Sanford, J. A., Rogers, W. A. & Mitzner, T. M. (2017, June). *RERC on Technologies to Support Successful Aging with Disability.* Rehabilitation Engineering Society of North America (RESNA) Annual Conference, New Orleans, LA.

Jones, B. D., Pandey, S., Presti, P., Taylor, R., Natarajan, P., Mahajan, S., Mahajan, H., & Sanford, J. A. (2017, June). *SmartBathroom: Developing a smart environment to study bathroom transfers*. Rehabilitation Engineering Society of North America (RESNA) Annual Conference, New Orleans, LA.

Gallagher, T. M. & Rogers, W. A., & (2017, June). *Meeting users' needs through technology: Guidance from policy and research.* Workshop presentation at the Rehabilitation Engineering Society of North America (RESNA) Annual Conference, New Orleans, LA. Participants: Rogers, W. A., & Gallagher, T. M.

Jones, B. D., Pandey, S., Presti, P., Natarajan, P., Mahajan, S., Mahajan, H., & Sanford, J. (2017, June), *SmartBathroom: Developing a smart environment to study bathroom transfers*. Rehabilitation Engineering Society of North America (RESNA) Annual Conference, New Orleans, LA.

Rogers, W. A. (2017, July). *Building a Research Facility at the University of Illinois Urbana-Champaign.* Rehabilitation Engineering Society of North America (RESNA) Annual Conference, New Orleans, LA.

Kapusta, A. & Kemp, C. C. (2017, July). *A Mobile Manipulator and a Robotic Bed for Robotic Assistance.* Rehabilitation Engineering Society of North America (RESNA) Annual Conference, New Orleans, LA.

Erickson, Z., Clegg, A., Yu, W., Turk, G., Liu, C. K., & Kemp, C. C. (2017, May). *What does the person feel? Learning to infer applied forces during robot-assisted dressing*. 2017 IEEE International Conference on Robotics and Automation (ICRA), Singapore, Malaysia.

Yu, W., Kapusta, A., Tan, J., Kemp, C. C., Turk, G., & Liu, C. K. (2017, May). *Haptic simulation for robot-assisted dressing*. 2017 IEEE International Conference on Robotics and Automation (ICRA), Singapore, Malaysia.

Wu, X., Thomas, R. C., Drobina, E. C., Mitzner, T. L., & Beer, J. M. (2017, March). *An evaluation of a telepresence robot: User testing among older adults with mobility impairment*. Poster presented at the 12th ACM/IEEE International Conference on Human-Robot Interaction (HRI '17), Vienna, Austria.

Stuck, R. E., Hartley, J. Q., Mitzner, T. L., Beer, J. M., & Rogers, W. A. (2017, March). *Understanding attitudes of older adults with mobility impairments toward telepresence technology*. Poster presented at the 12th ACM/IEEE International Conference on Human-Robot Interaction (HRI '17), Vienna, Austria.

Phillips, C., & Groenendaal, R. (2017, March). *Policy to Practice: Assistive Technology and Aging*. Aging in America Conference - American Society on Aging. Chicago, IL.

Phillips, C. & Wilson, R. (2017, January). *National Assistive Technology & Aging and Dementia Decision Tree Workshop.* Assistive Technology Industries Association (ATIA) Conference, Orlando, FL.

Gonzalez, E. T., Singleton, J. L., Mitzner, T. M., & Rogers, W. A. (2016, November). *Everyday technology use among deaf older adults*. Paper presentation at the Gerontological Society of America 69th Annual Meeting, New Orleans, LA.

Preusse, K. C., Gonzalez, E. T., Singleton, J. L., Mitzner, T. L., & Rogers, W. A. (2016, November). *Aging with impairment: Needs assessment insights from subject matter experts*. Paper presentation at the Gerontological Society of America 69th Annual Meeting, New Orleans, LA.

Gonzalez, E. T., Fausset, C. B., & Fain, W. B. (2016, November). *Overcoming Challenges in the Home: Solutions from Older Adults with Long-Term Mobility Impairment*. Symposium presentation at the Gerontological Society of America 69th Annual Meeting, New Orleans, LA.

Sanford, J. A., Guhathakurta, S., Melgen, S., & Zhang, G. (2016, November). *Application for Locational Intelligence and Geospatial Navigation (ALIGN)*. Symposium presentation at the Gerontological Society of America 69th Annual Meeting, New Orleans, LA.

Mitzner, T. L., Hartley, J., Stuck, R., Chan, L., Beer, J. M., & Rogers, W. A. (2016, November). *"Being There": Attitudes about Televideo Technology for Adults Aging with a Mobility Impairment*. Symposium presentation at the Gerontological Society of America 69th Annual Meeting, New Orleans, LA.

Vandenberg A. E., Johnson T. M., Jones B. D., Clevenger C., Nadel L., Vaughan C., Master V., Perkins M. (2016, November). *Technology solutions? Simpler. Clinical implementation in physically frail older adults? Involved.* Symposium presentation at the Gerontological Society of America 69th Annual Meeting, New Orleans, LA.

Bixter, M. T., Prakash, A., Blocker, K. A., Mitzner, T. L., & Rogers, W. A. (2016, November). *A qualitative analysis of the adoption and use of social communication technologies by older adults.* Gerontological Society of America 69th Annual Meeting, New Orleans, LA.

Rogers, W. A. (2016, September). *Psychological research to guide technology design that supports successful aging*. The 14th Psychology and Aging Congress. Bordeaux, France.

Rogers, W. A. (2016, September). *Reaching the potential of technology to support healthy aging: From apps to robots*. Inria Research Center "Interfaces" Aquitaine Scientific Symposium for Digital Sciences. Bordeaux, France.

Mitzner, T.L., Stuck, R. E., Hartley, J. Chan, L., Beer, J. M., & Rogers, W. A. (2016, September). *Televideo technology: Benefits and barriers perceived by older adults with a mobility impairment*. Presented at the 10th World Conference on Gerontechnology. Nice, France.

Kapusta, A., Yu, W., Bhattacharjee, C., Liu, K., Turk, G. & Kemp. C. C. (2016, August). Data-driven haptic perception for robot-assisted dressing. Workshop on behavior adaptation, interaction and learning for

assistive robots (BAILAR 2016), 25th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), Columbia, NY.

Chow, K. & Kemp, C. C. (2016, August). *Robotic repositioning of human limbs via model predictive control*. 25th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), Columbia, NY.

Kapusta, A., Chitalia, Y., & Kemp, C. C. (2016, August). *Collaboration between a robotic bed and a mobile manipulator may improve physical assistance for people with disabilities*. Workshop on behavior adaptation, interaction and learning for assistive robots (BAILAR 2016), 25th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), Columbia, NY.

Hartley, J. Q., Mitzner, T.L., Matalenes, L., Rogers, W.A. (2016, August). *Activity Self-Efficacy*. Presented at the Annual Meeting of the Georgia Gerontological Society. Jekyll Island, GA.

Liu, Y. E., Harrington, C. N., Melgen, S., & Sanford, J. A. (2016, July). *GatePal—Universal design for airport navigation to allow departing travelers to stay informed*. Paper presentation at the Human Computer Interaction International 2016 (HCII 2016), Toronto, Canada.

Ruzic, L., Lee, S., Liu, Y. E., & Sanford, J. A. (2016, July). *Development of Universal Design Mobile Interface Guidelines (UDMIG) for aging population*. Paper presentation at the Human Computer Interaction International 2016 (HCII 2016), Toronto, Canada.

Sanford, J. A., & Gonzalez, E. T. (2016, July). *RERC TechSAge: Making a Difference to the Lives of Older Adults with Disability through Design and Technology.* Paper presentation at the Human Computer Interaction International 2016 (HCII 2016), Toronto, Canada.

Wu, X., Stuck, R. E., Mitzner, T. L., Rogers, W. A., & Beer, J. M. (2016). *Televideo for older adults with mobility impairment: A needs assessment*. Scientific paper presentation at the Rehabilitation Engineering and Assistive Technology Society (RESNA) 2016 Annual Conference, Arlington, VA.

Mitzner, T. L., Sanford, J. A., Gonzalez, E. T., & Rogers, W. A. (2016, July). *RERC on Technologies to Support Successful Aging with Disability*. Workshop presentation at the Rehabilitation Engineering and Assistive Technology Society (RESNA) 2016 Annual Conference, Arlington, VA.

Grice, P. M., Chitalia, Y., Rich, M., Clever, H. M., & Kemp, C. C. (2016, July). *Autobed: Open hardware for accessible web-based control of an electric bed*. Poster presentation at the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) 2016 Annual Conference, Arlington, VA.

Mitzner, T. L., Stuck, R., Hartley, J., Chan, L., Beer, J. M., & Rogers, W. (2016, July). *Televideo technology: Benefits and barriers perceived by older adults with a mobility impairment*. International Society for Gerontechnology, Nice, France.

Sanath, A. A., Mahajan, H., Gonzalez, E. T., Sanford, J. A., & Fain, W. B. (2016, July). *Analysis of the effect of a rear wall grab bar configuration on the fall risk associated with toilet transfer in older adults with mobility impairment*. Poster presentation at the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) 2016 Annual Conference, Arlington, VA.

Singleton, J. L., Gonzalez, E. T., Rogers, W. A., & Mitzner, T. L. (2016, July). *Everyday Technology Use by Deaf Seniors*, Workshop presentation at the 2016 National Association of the Deaf Conference, Phoenix, AZ.

Grice, P. M. & Kemp, C. C. (2016, June). *Assistive mobile manipulation: Designing for operators with motor impairments*. Workshop on Socially and Physically Assistive Robots for Humanity at the 2016 Robotics: Science and Systems (RSS) Conference. Ann Arbor, MI.

Kapusta, A. & Kemp, C. C. (2016, June). *Optimization of robot configurations for assistive tasks*. Workshop on Planning for Human-Robot Interaction: Shared Autonomy and Collaborative Robotics at the 2016 Robotics: Science and Systems (RSS) Conference. Ann Arbor, MI.

Park, D., Kim, Y., Erickson, Z., and Kemp, C. C. (2016, May). *Towards assistive feeding with a general-purpose mobile manipulator*, In Workshop on Human-Robot Interfaces for Enhanced Physical Interactions, 2016 IEEE International Conference on Robotics and Automation (ICRA), Stockholm, Sweden.

Park, D., Erickson, Z., Bhattacharjee, T., & Kemp, C. (2016, May). *Multimodal execution monitoring for anomaly detection during robot manipulation*, *2016 IEEE International Conference on Robotics and Automation (ICRA),* Stockholm, Sweden.

Bhattacharjee, T. Wade, J., Chitalia, Y., & Kemp, C. C. (2016, April). *Data-driven thermal recognition of contact with people and objects*, Institute of Electrical and Electronics Engineers (IEEE) Haptics Symposium, Philadelphia, PA.

Gonzalez, E. T., Mitzner, T. L., Rogers, W.A., & Sanford, J. A. (2016, June). *TechSAge at Georgia Tech: Technologies to Support Successful Aging with Disability.* Workshop presentation at the 2016 Aging and Disability Resource Center (ADRC) Healthy Communities Summit, Atlanta, GA.

Vandenberg, A. E., Johnson, T., Clevenger, C., Nadel, L., Perkins, M., Vauhgan, C., Master, V., & Jones, B. D. (2016, May). *"Everybody don't have the same stride": Clinic Staff Views on Gait Speed Measurement Applications.* Poster presentation at the 2016 Annual Scientific Meeting of the American Geriatrics Society, Long Beach, CA.

Johnson, T. M., Capezuti, E., Whalen, T., Vandenberg, A.E., Taylor, T., Cohen, M. (2016, May). *Predicting resident bed exits in long-term care*. Presentation at the 2016 Annual Scientific Meeting of the American Geriatrics Society, Long Beach, CA.

Johnson, T. M., Ray, J., Ake, B., Goese, D., Jones, B.D., Folds, D. (2016, May). *A pilot test of an in-home, minimally intrusive sensor kit for nocturia*. Poster presentation at the 2016 Annual Scientific Meeting of the American Geriatrics Society, Long Beach, CA.

Phillips, C. and Rust, M. (2016, April). *"Assistive Technology Solutions for Successful Aging."* Pacific Rim International Conference. Honolulu, Hawaii.

Preusse, K. C., Gonzalez, E. T., Mitzner, T. L., Singleton J. L., & Rogers, W. A. (2016, April). *Older adults with visual impairments: Potential barriers to social connectedness*. Cognitive Aging Conference, Atlanta, GA.

Sanford, J. A., & Gonzalez, E. T. (2016, April). *Universal Design for Aging*. Environments for Aging 2015 Annual Conference, Austin, TX.

Rogers, W. A. (2016, March). *Aging and technology: How do we know what works?* Invited presentation at the University of Kansas Gerontology Center. Lawrence, KS.

Sanford, J. A. (2016, March). *The Past, Present and Future of Design and Technology for Aging in Place*. 2016 Builder/Remodeler Expo, Atlanta, GA.

Persaud, L. (2016, March). *What's New in Assistive Technology*. AADD Partners in Policymaking, Atlanta, GA.

Rogers, W. A., Mitzner, T. L., Sanford, J. A., & Gonzalez, E. T. (2016, February). *Technologies to Support Successful Aging with Disability: Research, Design, and Training Efforts*. Poster Presentation at the Rehabilitation Psychology 2016 Conference, Atlanta, GA.

Phillips, C. (2016, February). *Assistive Technology (AT) 102 – Diving Below the Surface.* International Learning Disabilities Association, Orlando, FL.

Persaud, L. (2016, January). *Access and Explore! Using Environmental Control in Transition.* Assistive Technology Industries Association (ATIA), Orlando, FL.

Phillips, C. (2015, December). *Assistive Technology Solutions for Aging Successfully with a Disability*. TASH Conference, Portland, OR.

Phillips, C. & Persaud, L. (2015, November). *Emerging Technology*. Georgia Tech, Leading Age Technology and Aging Summit, Atlanta, GA.

Harrington, C. N. and Bruce, C. (2015, November). *Accessibility Hackathon*. 3-Hour Workshop at the Southeast Women in Computing (SEWIC) Conference, Atlanta, GA.

Gonzalez, E, Sanford, J. A., Rogers, W. A., & Mitzner, T. L. (2015, November). *Re-conceptualizing the impact of aging on disability: Implications for technology interventions*. Technology and Aging Interest Group Symposium, Gerontological Society of America 68th Annual Meeting, Orlando, FL.

Rogers, W. A. Harrington, C. N., Barg-Walkow, L., Hartley, J. Q., & Mitzner, T. L. (2015, November). *Designing a quick start guide for Kinect game use by older adults*. Gerontological Society of America 68th Annual Meeting, Orlando, FL.

Wu, X., Stuck, R. E., Mitzner, T. L., Rogers, W. A., & Beer, J. M. (2015, November). *Needs assessment for telewellness technologies among older adults with mobility impairment.* Gerontological Society of America 68th Annual Meeting, Orlando, FL.

Rogers, W. A., Singleton, J., Mitzner, T. L., Gonzalez, E., Preusse, K. C. (2015, October). *Needs assessment of individuals aging with impairment*. 2015 Annual Meeting of the Human Factors and Ergonomics Society Europe (HFES Europe), Groningen, Netherlands.

Harrington, C. N., Mitzner, T. L., & Rogers, W. A. (October, 2015). *Identifying the gaps in available assistive technologies to support healthy aging*. 2015 Annual Meeting of the Human Factors and Ergonomics Society Europe (HFES Europe), Groningen, Netherlands.

Solomon, R., (2015, October). *Food for Thought: Developing a Cognitive Training Game for Older Adults*, GVU Fall Research Showcase, Georgia Institute of Technology, Atlanta Georgia.

Persaud, L. (2015, October). *Tools for Life: Exploring Assistive Technology Strategies & Solutions.* Berry College, Department of Psychology, Rome, GA.

Gandy, M., Levy, L. M., Solomon, R., Riedl, M. (2015, September). *An online eco-system for game studies: studying the validity and value of assessment games.* Invited talk at ACT, Inc. headquarters.

Phillips, C., Persaud, E., Levy, L.M. (2015, September). *Gaming with Disabilities*. 2015 DragonCon Panel, Atlanta, Georgia.

Kapusta, A., Park, D., & Kemp, C. C. (2015, September). *Task-centric selection of robot and environment initial configurations to perform assistive tasks*. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2015, Hamburg, Germany.

Singleton, J. L., Mitzner, T., & Rogers, W. (2015, August). *Healthy Aging.* Interactive Workshop presentation to Deaf Seniors of America conference, Asheville, NC.

Rogers, W. A., & Mitzner, T.L. (2015, August). *Technologies to support successful aging with disabilities: A framework for design.* American Psychological Association, Toronto, Canada.

Gandy Coleman, M., Solomon, R., Levy, L., Thompson, B., Murray, B., Whitlock, L. A., McLaughlin, A., & Allaire, J. (2015, August). *Exploring motivating game elements for older adults in two studies of long-term play*. Human Computer Interaction International 2015 (HCII 2015), Los Angeles, CA.

Keiko Gomez-Gurley, K., McLaughlin, A. C., Gandy Coleman, M., & Allaire, J. C. (2015, August). *Accessibility in serious games for adults aging with disability*. Human Computer Interaction International 2015 (HCII 2015), Los Angeles, CA.

Sanford, J. A. (2015, August). *Universal design as an approach to technology intervention for seniors*. Human Computer Interaction International 2015 (HCII 2015), Los Angeles, CA.

Harrington, C. N., Hartley, J. Q., Mitzner, T. L., & Rogers, W. A. (2015, August). *Assessing older adults' usability challenges using Kinect-based exergames*. Human Computer Interaction International (HCII 2015), Los Angeles, CA.

Phillips, C. & Wilson, R. (2015, June). *Ready to Launch: Assistive Technology Supports for Positive Transitions*. IDEAS Conference, St. Simons, GA.

Mitzner, T. L., Rogers, W. A., & Sanford, J. A. (2015, June). *Moving forward with technologies for successful aging with disability.* Workshop presentation at the Rehabilitation Engineering and Assistive Technology Society (RESNA) 2015 Annual Conference, Denver, CO.

Gonzalez, E. (2015, June). *Moving in, out and around the home: Solutions from older adults with long-term mobility impairment*. Scientific Platform Session, Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) 2015 Annual Conference, Denver, CO.

Levy, L., Solomon, R., Moore, J., Way, J., Liu, R., & Gandy, M. (2015, June). *Actions speak louder than words: An exploration of game play behavior and results from traditional assessments of individual differences*. Foundations of Digital Games, Monterey, CA.

Fausset, C. B., Gonzalez, E., & Fain, W. B. (2015, April). *Part 2: Aging with Mobility Impairment: Understanding Challenges in the Home*. In *Deep dive session on Georgia Tech HomeLab*. Environments for Aging 2015 Annual Conference, Baltimore, MD.

Rogers, W. A., Mitzner, T. L., Hartley, J. Q., & Harrington, C. N. (2015, April). *Identifying the potential of exergame interventions: An analysis of use challenges for novice older adults.* International Association of Gerontology and Geriatrics European Region Congress, Dublin, Ireland.

Sanford, J. (2015, April). *Technologies to Support Successful Aging with Disability*. College of Architecture (CoA) Research Forum Series, Georgia Institute of Technology, Atlanta, GA.

Williams, C. & McClellan, A. (2015, April). *Increasing visual accessibility of Food for Thought*. Human Factors and Applied Cognition Graduate Student Poster Session. North Carolina State University, Raleigh, NC.

Phillips, C. (2015, March). *Here's Hope: Assistive Technology Supporting Positive Mental Health*. CSUN International Disability Conference, San Diego, CA.

Phillips, C. (2015, February). *AT 102: Back to the Basics: Tablets, Apps and LD*. Learning Disability Association Conference, Chicago, IL.

Phillips, C. (2015, February). *Tracking Trends and Transferring Knowledge*. Integrating UDL and AT to Close the Gap Conference. Griffin, GA.

Phillips, C., & Persaud, L. (2015, January). *Assistive Technology Solutions for Successful Aging.* ATiA Conference, Orlando, FL.

Hawkins, K., Grice, P. M., Chen, T. L., King, C. H., & Kemp, C. C. (2014, December). *Assistive mobile manipulation for selfcare tasks around the head*. 2014 IEEE Symposium on Computational Intelligence in Robotic, Rehabilitation and Assistive Technologies, Orlando, FL.

Persaud, L. (2014, December). *Tracking Trends in Assistive Technology*. Visiting Nurse Health System, Long-Term Care Staff and Directors Annual Meeting, Atlanta, GA.

Persaud, L. (2014, November). "Technology Innovations Empowering Independence and Health: Active Research to On the Market." Leading Age Georgia Conference, Atlanta, GA.

Beer, J. M., & Rogers, W. A. (2014, November). *Perceptions of usefulness for robot assistance: Differences between older adults with and without mobility loss*. Poster presentation at the Gerontological Society of America 67th Annual Meeting, Washington, DC.

Harrington, C. N., Mitzner, T. L., & Rogers, W. A. (2014, November). *Understanding everyday task challenges for older adults with and without disabilities*. Poster presentation at the Gerontological Society of America 67th Annual Meeting, Washington, DC.

Rogers, W. A., Marinelli, E., Cha, G., Hartley, J., & Mitzner, T. L. (2014, November). *Kinect games for older adults: Understanding usability challenges*. Poster presentation at the Gerontological Society of America 67th Annual Meeting, Washington, DC.

Rogers, W. A., Singleton, J. L., Mitzner, T. L., & Chang, E.Y. (2014, November). *Experiences with Technology by Older Adults in the Deaf Community*. Poster presentation at the Gerontological Society of America 67th Annual Meeting, Washington, DC.

Park, D., Kapusta, A., Hawke, J., & Kemp, C.C. (2014, November). *Interleaving planning and control for efficient haptically-guided reaching in unknown environments*. IEEERAS International Conference on Humanoid Robots, Madrid, Spain.

Bhattacharjee, T., Grice, P.M., Kapusta, A., Killpack, M.D., Park, D., & Kemp, C.C. (2014, September). *A robotic system for reaching in dense clutter that integrates model predictive control, learning, haptic mapping, and planning*. 3rd Workshop on Robots in Clutter: Perception and Interaction in Clutter, 2014 IEEE/RSJ International Conference on Intelligent Robots and Systems, Chicago, IL.

Park, D., Kapusta, A., Kim, Y.K., Rehg, J., & Kemp, C. (2014, September). *Learning to reach into the unknown: Selecting initial conditions when reaching in clutter*. 2014 IEEE/RSJ International Conference on Intelligent Robots and Systems, Chicago, IL.

Persaud, L., & Phillips, C. (2014, September). *Assistive Technology Solutions for Successful Aging*. LeadingAge Conference - AT Lab & 3 sessions, Peachtree City, GA.

Sanford, J.A., & Griffiths, P. (2014, September). *Enhancing Integration of Technology into Aging Services through Academic and Practice*. IAHSA – CAST Applied Research Forum on Technology and Aging Services, Amsterdam, The Netherlands.

Persaud, L., & Phillips, C. (2014, August). *Assistive Technology Solutions for Successful Aging*. DAS Systems Integration Conference - AT Lab & 3 sessions, Peachtree City, GA.

Phillips, C. (2014, July). *Discovering Personal Genius*. Arizona AT & Disability Conference, Phoenix, AZ.

Singleton, J. (2014, July). *Healthy Aging in the Deaf Community*. Workshop presentation at the 2016 National Association of the Deaf Conference, Atlanta, GA.

Rogers, W. A., Mitzner, T. L., & Sanford, J. A. (2014, June). *A research framework to guide design of technologies for successful aging with disabilities*. International Society for Gerontechnology, Taipei, Taiwan.

Sanford, J. A., Rogers, W. A., & Mitzner, T. L. (2014, June). *Current and future directions in technologies for successful aging with disability*. Workshop presentation at the Rehabilitation Engineering and Assistive Technology Society (RESNA) 2014 Annual Conference, Indianapolis, IN.

Sanford, J.A., & Jones, B. (2014, June). *The smart bathroom: UD through integrating physical and digital worlds*. International Conference on Universal Design, Lund, Sweden.

Singleton, J.L., Mitzner, T.L., Rogers, W.A. (2014, June). *Research on Technologies to Support Successful Aging with Disability*. Poster presentation at the Effective Access Technology Conference, Rochester, NY.

Kemp, C. C. (2014, May). *Human-machine interaction and assistance in future systems-physical aspects*. Computing Visions 2025: Interacting with the Computers All Around Us, Washington, D.C.

Invited Presentations

Rogers, W. A., and Bartlo, W. (2018, April). *New and emerging technologies to support older adults: Research from the University of Illinois at Urbana-Champaign*. Leading Age Illinois, Schaumburg, IL.

Rogers, W. A., & Bartlo, W. (2018, April). *Collaborative opportunities for Leading Age Illinois and the University of Illinois at Urbana-Champaign*. Leading Age Illinois, Schaumburg, IL.

Rogers, W. A. (2018, March). *Technology for healthy aging*. Episcopal Retirement Services, Parish Health Ministry's Annual Refresh Your Soul, Cincinnati, OH.

Rogers, W. A. (2018, January). *Collaborations in Health, Aging, Research and Technology (CHART) and the LIFE Home*. Senior Task Force, Champaign, IL.

Remillard, E. T., Singleton, J. L., Mitzner, T. L., & Rogers, W. A. (2018, February). *Everyday technology use among Deaf older adults*. Invited Presentation at the Atlanta Chapter of the Association of Late Deafened Adults, Lawrenceville GA.

Remillard, E. T., Sanford, J. A., Rogers, W. A., & Mitzner, T. L. (2018, January). *RERC TechSAge*. Invited presentation at Anthem Innovation Studio, Atlanta, GA.

Rogers, W. A. (2017, November*). Technology enhancements to support aging-in-place*. HIV & Aging: Mitochondria to the Metropolis. Emory University, Atlanta, GA.

Sanford, J. A. (2017, March). *Assisted Barrier Free Bathroom Design in Healthcare*. Invited presentation at the American Institute of Architects (AIA) Health Facilities Symposium, Grand Rapids, MI.

Gonzalez, E. (2017, February). Invited panelist at the Atlanta Post-Polio Association (APPA) website launch reception, Atlanta, GA.

Kemp, C. C. (2016, November). *Haptic Sensing for Assistive Robots.* Invited presentation at the Humanoids 2016 Workshop: Tactile sensing for manipulation: new progress and challenges. Cancun, Mexico.

Rogers, W. A. (2016, September). *Psychological research to guide technology design that supports successful aging*. The 14th Psychology and Aging Congress Bordeaux, France.

Rogers, W. A. (2016, March). *Design of technology for healthy aging: From apps to robots*. Invited presentation at the University of Akron's Institute for Lifespan Development and Gerontology's 40th Anniversary Celebration. Akron, OH.

Beer, J. M. (2015, November). *Can Assistive Robots Transform Retirement?* Invited presentation, TEDx Peachtree, Atlanta, GA.

Rogers, W. A. (2015, November). *What do gerontologists know that designers don't?* Invited presentation at the Technology and Aging Interest Group Symposium, Gerontological Society of America 68th Annual Meeting, Orlando, FL.

Rogers, W. A. (2015, October). *Inclusive innovation: Designing for and with older adults*. Invited presentation at the 2nd World Health Organization (WHO) Global Forum on Innovation for Ageing Populations, Kobe, Japan.

Rogers, W. A. (2015, October). *Concluding session: Creating tomorrow*. Invited presentation at the 2nd WHO Global Forum on Innovation for Ageing Populations, Kobe, Japan.

Rogers, W. A. (2015, October). *Design and deployment of technology to support healthy aging*. Department of Economics, Business, and Marketing, University of Groningen, The Netherlands.

Rogers, W. A. (2015, September). *The potential of technology supports for healthy aging: From apps to robots.* Chinese Congress and Exposition on Gerontology and Health Industry, Suzhou, China.

Phillips, C. (2014, July). *Taking Flight*. Keynote, Arizona AT & Disability Conference, Phoenix, AZ.

Bowman, S. (2014, April). *Technologies to Support Successful Aging with Disability*. Robust and Resilient Aging Course, Osher Lifelong Learning Institute, Emory University, Atlanta, GA.

Kemp, C. C. (2014, March). Young Innovators Session. The American Institute for Medical and Biological Engineering (AIMBE) 2014 Annual Event, Washington, D.C.

Outreach Activities

Lee, S. & Jones, B. (2017, February). Invited exhibitors (DATHA & TechSAge) at the Cobb County Senior Services Assistive Technology Lab Opening.

Singleton, J. (2016, October). RERC TechSAge recruitment booth at American Sign Language (ASL) Fair, Decatur, GA.

Gonzalez, E. (2015, November). RERC TechSAge recruitment event and presentation from the "Aging with a Mobility Impairment" Home Study, Atlanta Post-Polio Association (APPA) monthly meeting, Atlanta, GA.

Gonzalez, E. (2015, May). RERC TechSAge Booth, Fulton County Senior Expo and Symposium, Atlanta, GA.

Gonzalez, E. (2015, May). RERC TechSAge Booth, Cobb County Senior Services: Aging by Design Summit and Expo, Marietta, GA.

Gonzalez, E. (2014, October). RERC TechSAge Booth, Shepherd Center Fall Advocacy Event, Atlanta, GA.

Fausset, C. B. (2014, July). RERC TechSAge recruitment event, Atlanta Post-Polio Association (APPA) monthly meeting, Atlanta, GA.

Technology Products

- **Autobed – Web controlled electric hospital bed (Charlie Kemp, Healthcare Robotics Lab)** The Autobed module is an additional module for an Invacare fully electric hospital bed (Model 5410IVC) so that the bed can be controlled from a web-based interface. This module can be easily plugged between the hand control and the Invacare bed, without having to modify any existing hardware on the bed. The Autobed technology gives the control of an electric bed to the motor impaired bedridden person. This enables any motor

impaired person who can operate a web browser to control their own electric bed at a very low cost. Invacare, Co. is currently working on commercializing Autobed. http://pwp.gatech.edu/hrl/autobed-a-web-controlled-robotic-bed/

- **Brain Food - (Maribeth Gandy-Coleman, Interactive Media and Technology Center)**. This is the code-base for the Brain Food prototype tablet-based cognitive intervention game. It is written in using the Unity3D game engine. It provides an example to the game developer community of how variable priority training (VPT) can be integrated into a "time management" style game. https://github.com/imtc-gatech
- **Food for Thought Platform (Gandy-Coleman)** This is a platform for creating custom accessible instrumented "time management" games for serious games research/scientific experiments by non-technologists. It includes in-editor "wizards" that allow the user to create levels of a cognitive game within difficulty and multi-tasking requirements they define. It has a built-in logging system to collect detailed play data. It comes with hundreds of sample levels built by psychology researchers studying cognitive training. It is built around game themes, mechanics, and interfaces that were tuned for older adult players. This platform has been used in at least a dozen cognitive game and assessment studies over the period of six years https://github.com/imtc-gatech
- **Unity Vision Loss Tools (Gandy-Coleman)** This is a drag-and-drop plugin for the Unity3D game engine that allows game developers to explore how their interface would appear to people with eight types of vision impairment.

Training Activities

Courses
Rogers, W. A. (Fall 2017). Technology, Health, and Aging (CHLH494). University of Illinois Urbana-Champaign

Sanford, J. A. (Fall 2017). *Universal Design for Sustainable Communities*. Two-day short course on design opportunities to engage older adults in farmers' markets as a part of the Georgia Tech Serve, Learn Sustain (SLS) Buzz Course program. Atlanta, GA.

Sanford, J. A. (Fall 2015), *Universal Design* (ID 6800 & 4210; ARCH 8843, &4843), Georgia Institute of Technology, Atlanta, GA.

Sanford, J. A. (Spring 2015), *Apps for Aging*, Georgia Institute of Technology, Atlanta, GA.

Sanford, J. A. (Fall 2014), *Advanced Universal Design* (ID 6800/Arch 8843), Georgia Institute of Technology, Atlanta, GA.

Course projects
Wilson, J. & Gandy-Coleman, M. (Spring 2017). *Accessible Game Design and Auditory Interfaces* (CS 4455), Georgia Institute of Technology, Atlanta, GA.

McLaughlin, A. (Fall 2015), *Student accessibility evaluations of Food for Thought cognitive training game prototypes*. North Carolina State University, Raleigh, NC.

Competitions
TechSAge Design Competition (www.techsagecompetition.com)
- 2018 (in progress – Phase 1 deadline March 25, 2018)
- 2017: 2nd annual international design competition on technologies to support aging with disability. 14 Universal Design entries were submitted, including 25 competitors from 12 different schools. Top designs from the competition followed a rigorous two-phase competition, in which a talented panel of experts in the field helped judge Phase I, and the RERC TechSAge Advisory Board, evaluated the Phase II designs.

- 2016: Launched 1st ever international design competition on technologies to support aging with disability. 23 Universal Design entries were submitted, with competitors including 36 individuals, representing 14 international schools as well as business entities. Top designs from the competition followed a rigorous two-phase competition, in which a talented panel of experts in the field helped judge Phase I, and the RERC TechSAge Advisory Board, evaluated the Phase II designs.

Convergence Innovation Competition, Georgia Institute of Technology
- (2016, April): TechSAge sponsored a special award in Universal Design
- (2015, April): TechSAge sponsored a new judging area and special award in Universal Design

Guest Lectures

Gandy-Coleman, M. (2017, November). *Immersive technology for health interventions*. Presented at Health Tech Day; gave talk about the approximately 30 high school students from underserved communities participating in NIH workshop.

Rust, M. & Kumar, A. (2017, November). Tools for Life: Exploring Assistive Technology Strategies & Solutions. Georgia State University, Rehabilitation Counseling Master's Course, Atlanta, GA.

Rogers, W. A. (2017, October*). Technology design for successful aging: Support for social engagement*. School of Informatics and Computing Colloquium Series. Indiana University, Bloomington, IN.

Bruce, C. (June, 2017). "Design Workshop". 2-hour Workshop for the Georgia Tech EXCEL Summer Camp, Atlanta, GA.

Gandy Coleman, M. (2017, April). *Auditory interfaces for wearable and pervasive devices.* Guest Lecture for Assistive Technology Class (PSYC 8040), Georgia Institute of Technology, Atlanta, GA.

Gandy Coleman, M. (2017, April). *Accessible/universal game design*. Guest lecture for Principles of Computer Audio course (CS 4590). Georgia Institute of Technology, Atlanta, GA.

Gandy Coleman, M. (2017, February). *Use of sonification for accessibility in video games*. Guest lecture for Video Game Design course (CS 4455). Georgia Institute of Technology, Atlanta, GA.

Gandy Coleman, M., & Lambeth, A. (2017, January). *Kids Innovation. Workshop at PEDS2040.* Miami, FL.

Phillips, C., Holder, T., & Peters, S. (2017, February). *Universal Design and Assistive Technology: Solutions That Work for Everyone*. Georgia Tech, Atlanta, GA.

Jacobs, B, Holder, T., Persaud, L., & Peters, S. (2017, February). *Exploring Assistive Technology and Disability Awareness*. TREY Project, Cambridge High School, Alpharetta, GA.

Wilson, R. (2017, February). *Exploring Assistive Technology Options for Aging*. John's Creek Park Place Senior Center. Tools for Life: Assistive Technology Program, Georgia Tech | AMAC, Atlanta, GA.

Mitzner, T. L. (February, 2017). *Designing technology for older adults*. Assistive Technology and Accessible Design Course, Georgia Institute of Technology.

Wilson, R. (2016, October). *Healthy Living with Assistive Technology*. Cherokee County Senior Services, Canton, GA.

Phillips, C. & Persaud, L. (2016, September). *Introduction to Assistive Technology Solutions*. Georgia Rehabilitation Association (GRA) Conference, Savannah, GA.

Gandy Coleman, M., & Levy, L. (2016, September). *Women in the Game Industry*. Presentation discussed TechSAge work (and accessible gaming in general). 2016 DragonCon Panel, Atlanta, Georgia.

Gandy Coleman, M., & Levy, L. (2016, September). *Going to School for Video Games*. Presentation discussed TechSAge work (and accessible gaming in general). 2016 DragonCon Panel, Atlanta, Georgia.

Gandy Coleman, M., & Levy, L. (2016, September). *Unusual Jobs in the Video Game Industry*. Presentation discussed TechSAge work (and accessible gaming in general). 2016 DragonCon Panel, Atlanta, Georgia.

Gandy Coleman, M., & Levy, L. (2016, September). *Emerging Technologies and the Future of Gaming*. Presentation discussed TechSAge work (and accessible gaming in general). 2016 DragonCon Panel, Atlanta, Georgia.

Phillips, C. & Persaud, L. (2016, August). *Access and Explore! Exploring Assistive Technology.* DBHDD & Tools for Life: Assistive Technology Project, Disability Connections in Macon, GA

Wilson, R. & Mullins, K. (2016, August). *Sharpening Your Skills: Assistive Technology Toolkit Training*. Northwest Georgia Area Agency on Aging: Rome, GA.

Phillips, C. and Rust, M. (2016, June). *"Assistive Technology Solutions for Successful Aging."* IDEAS AT Lab. St. Simon's Island, Georgia.

Bruce, C. (2016, June). "Design Workshop". 2-hour Workshop for the Georgia Tech EXCEL Summer Camp, Atlanta, GA.

Phillips, C. (2016, March). *Tools for Life: AT Decision Tree for Aging Workshop.* Georgia Division Aging Services. Georgia Tech, Atlanta, GA.

Wilson, R. and Phillips, C. (2016, March). "*Assistive Technology Solutions for Aging.*" Guest Lecture, Georgia State University Guest Lecture for Gerontology, Atlanta, GA.

Lambeth, A. (2016, April). *From A to ∞*, presentation on accessible game design, games research, and careers utilizing interaction media skills to 81 middle school students and 13 teachers Georgia Institute of Technology, Atlanta, GA.

Levy, L., Solomon, R., Lambeth, A. (2016, February). Presentation on Accessible Gaming to hundreds of middle and high school students across a 12-hour demonstration window at the Sandy Spring Education Force, STEAM event, North Springs Charter High School, Atlanta. GA.

Liu, Y. (2016, February). Workshop on Universal Design, Georgia Institute of Technology, Atlanta, GA.

Kascak, L. (2016, February). Universal Design Principles for Interfaces, Applied Experimental Psychology Lab, Georgia Institute of Technology, Atlanta, GA.

Bruce, C. (2016, January). "Universal Design to Support Engagement". Guest presentation in Georgia Tech ARCH 3012 course, Atlanta, GA.

Phillips, C. (2015, December). *Assistive Technology Solutions for Individuals with Neurodegenerative Diseases*. University of Georgia, Speech Communication Sciences Master's Course, Athens, GA.

Phillips, C. & Persaud, L. (2015, October). *Tools for Life: Exploring Assistive Technology Strategies & Solutions*. Georgia State University, Rehabilitation Counseling Master's Course, Atlanta, GA.

Phillips, C. (2015, March). *Assistive Technology Solutions for Successful Aging,* Guest Lecture, Georgia State University Guest Lecture for Gerontology, Atlanta, GA.

Persaud, L. (2015, February). *Tracking Trends in Assistive Technology*, Guest Lecture, Michigan State University, Social and Environmental Aspects of Disability Masters Class, Atlanta, GA.

Kascak, L. (2015, February). Workshop on Universal Design, Georgia Institute of Technology, Atlanta, GA.

Phillips, C. (2014, November). *Tracking Trends in Assistive Technology*. Georgia State University Guest Lecture for Rehabilitation Counseling Students, Atlanta, GA.

TechSAge State of the Science Conference March 27-28, 2017: Guest Presentations
(Organized by RERC TechSAge)
Archived presentations available from: http://techsage.gatech.edu/videos

- Keynote Lecture: Michelle Putnam, Ph.D. *Aging with Disability and Technology as Policy Disruptors.*
- Brenna Argall, Ph.D. *Human Autonomy through Robotics Autonomy.*
- Andrew Sixsmith, Ph.D. *Aging & Technology: From the Laboratory to the Real World.*
- T. Kesavadas, Ph.D. *Universal Concierge and VR: Improved Care for an Aging Population*.
- Jeffrey Woods, Ph.D. *Age-Friendly Champaign-Urbana: Leveraging a Community Outreach Effort for Research.*
- Elizabeth Mynatt, Ph.D. *Aging & Personal Technology.*
- Ayanna Howard, Ph.D. *Current Research in Gaming, Robotics, & Assistive Technology*

- Mary Blumberg. *Atlanta Regional Commission: Lifelong Communities*

Design and Technologies for Healthy Aging (DATHA) Talks
(Organized by RERC TechSAge)
Archived presentations available from: http://datha.gatech.edu/node/237
Baker, C. (2017, September). *Baker Daily Money Management: Financial Fraud and Elder Abuse Prevention*. Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Van Kley, C. (2017, February). *The American Institute of Architects (AIA)'s Design for Aging (DFA).* Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Luukkonen, P. (2017, January). *Coastal Area Agency on Aging's Ability Solutions Assistive Technology Lab.* Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Earl, T., Ervin, E., & Beachner, L. (2016, November). *Senior Learning Network (SLN).* Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Ross, D. (2016, October). *Electrochromic Glasses for Individuals with Vision Impairment*. Invited Presentation, Design and Technology for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Kerssens, C. (2016, September). *Bridging the Worlds of Research and Industry*. Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Sanford, J. & TechSAge team (2016, April). *Poster Session on RERC TechSAge Research Studies, Development Projects.* Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Ratliff, J. (2016, March). *The Importance of High-touch Technology Education for Older Adults.* Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Harvey, L. (2016, February). *The Role of Technology in Creating an Age-Friendly City: Current Trends and Future Vision*. Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Phillips, C., Wilson, R., & Persaud, L. (2015, December). *Assistive Technology for Aging in Place.* Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Hackett, B. (2015, November). *Systematically Leveraging Community Partners and Connections –The Best Solution to a Broken System.* Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Harrington, E. (2015, October). *Taking Control to Prevent Falls: The Shepherd Center's Fall and Injury Prevention Program*. Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Ray, R. (2015, September). *Transportation and Aging: The Atlanta Regional Commission's Simply Get There App*. Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Wolf, S. & Trumbower, R. (2015, May). *FiRST initiative: Frontiers in Rehabilitative Science Technologies*. Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Brand, C. (2015, April). *Friends of Disabled Adults and Children (FODAC).* Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.
Head, E. (2015, March). *Older Driver Safety*. Invited Presentation, Design and Technology for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.

Harrington, C. (2015, February). *Bathroom Assistive Technology for Older Adults (Marge Klompe Research Exchange program in the Netherlands)*. Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.

Langston, A. (2015, January). *Caregiver Assist In-Home Assistive Technology Training Intervention*. Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.

Johnson, T. M. (2014, December). *A Mobile Application to Measure Gait Speed*. Invited Presentation, Design and Technologies for Healthy Aging (DATHA), Georgia Institute of Technology, Atlanta, GA.

Leading Age Technology and Aging Summit (2015 – 2017)
(organized by RERC TechSAge, Wireless RERC, and Tools for Life)

Phillips, C. & Persaud, L., & Jones, B. (2015 – 2017). *Rapid Fire: Innovation Design Practicum*: Designing Solutions to Improve the Lives of Older Adults. Workshop conducted at the 2015, 2016, & 2017 Leading Age Technology and Aging Summit, Georgia Institute of Technology, Atlanta, GA.

Pompilio, D. (2017, November). *Simple C*. Presentation at the 2017 Leading Age Technology and Aging Summit, Georgia Institute of Technology, Atlanta, GA.

Alwan, M. (2016, November). Leading Age Center for Aging Services Technologies. Presentation at the 2016 Leading Age Technology and Aging Summit, Georgia Institute of Technology, Atlanta, GA.

Demos
- SmartBathroom demonstrations
  - Georgia Tech GVU Showcase (2016, October)
  - Center for Assistive Technology and Environmental Access (CATEA) Open House (2016, November)
  - Cobb County Senior Services, Aware Home Visit (2016, August)
  - TechSAge Advisory Board Meeting (2016, May)
- Gait Speed project demonstrations
  - TechSAge Advisory Board Meeting (2016, May)
  - TechSAge Advisory Board Meeting (2015, May)
- Demos for National Robotics Week, Healthcare Robotics Lab, Georgia Institute of Technology (2016, April)

Visits
- Aware Home tours and demonstrations:
  - Cree (2017, February)
  - Comcast Cable (2017, January)
  - Flextronics (2017, January; 2016, October)
  - Jacob Sosnoff, Associate Director of the Center on Health, Aging, and Disability, University of Illinois (2016, October)
  - Lee J. Metcalf, Vice President, Daugherty Business Solutions (2016, October)
  - Georgia Tech Realtime Embedded Systems class (2016, October)
  - Georgia Tech Architecture studio class (2016, August)
  - Gait Smart (2016, August)
  - Amazon Smarthome (2016, September)
  - John Fitch, Birkeland Current (2016, July)
  - Olivier Oullier, World Economic Forum (2016, July)
  - Elena Soboleva, Journalist, GEO Magazine Russia (2016, June)

- ○ Georgia State University (GSU) Occupational Therapy (2016, May)
- ○ Centralite (2016, May)
- ○ Lenbrook LifeCare Community (2016, May)
- ○ Proctor and Gamble (2016, April)
- ○ Neil Alexander: Professor at the University of Michigan, Department of Internal Medicine and Division of Geriatric and Palliative Medicine, Director of the UM Mobility Research Center, and Director of the VA Ann Arbor Health Care System Geriatric Research Education and Clinical Center (2016, April)
- ○ Multiple Georgia Tech student groups from Computer Science, Psychology, Industrial Design, Electrical and Computer Engineering (2016, March-May)
- ○ National Aging in Place Council (Georgia Chapter) (2015, December)
- ○ Cox Communications (2015, November)
- ○ Georgia Tech Women's Club (2015, November)
- ○ Graduate computing students in the Real-Time Embedded Systems class (2015, October)

Webinars, Podcasts, Online Courses

Housley, D. (2016-2017). Assistive Technology Series: Technology Design. Georgia Radio Reading Service (GaRRS). Atlanta, GA.

Phillips, C., & Groenendaal, R. (2017, March). Policy to Practice: Assistive Technology and Aging. Aging in America Conference - American Society on Aging. Chicago, IL. Webinar retrieved from: http://www.gatfl.gatech.edu/tflwiki/index.php?title=ASA_Conference_2017_-_Chicago,_IL

Phillips, C. & Rempel, J. (2016, October). *Tips on Making your Project Accessible*. Webinar, Atlanta, GA. Webinar retrieved from: http://www.techsage.gatech.edu/node/70

Kascak, L. (2016, February). *Universal Design Principles for Interfaces*, Guest Lecture to Applied Experimental Psychology Lab, Georgia Institute of Technology, Atlanta, GA. Webinar retrieved from: http://www.techsage.gatech.edu/node/70

Persaud, L., Jacobs, B., Wilson, R., & Brookins, D. (2015, June). *Exploring Assistive Technology for Everyday Solutions*. Webinar retrieved from: http://www.gatfl.gatech.edu/tflwiki/index.php?title=DAS_ADRC_Healthy_Communities_Summit_-_June_17-19,_2015

Phillips, C., & Persaud, L. (2014, December, 3). *TechSAge - Disability 101 for Researchers: A Closer Look at Communication*. Atlanta, GA. Webinar retrieved from: http://www.gatfl.gatech.edu/tflwiki/index.php?title=TechSAge_Webinars

Phillips, C., & Persaud, L. (2014, October, 29). *Lighting the Path: A Guided Discussion on AT for Dementia*. Webinar, Atlanta, GA. Webinar retrieved from: http://www.gatfl.gatech.edu/tflwiki/images/c/c3/TFL_webinar_AT_for_Dementia_October_2014_V3_FINAL.pdf

Other Accomplishments

Other Collaborations

Pilot Research Projects

Other Supplements

- Supporting Social Engagement through Technology for Older Adults with and without MCI (4/1/18 - 12/31/18) [R43AG059450] Phase I Small Business Innovation Research Grant from the National Institute on Aging (National Institutes of Health). Dillon Myers, Principal Investigator for Potluck, LLC and Wendy A. Rogers, Principal Investigator for University of Illinois.
- Illinois Seniors Smart-Home Initiative: Information Resources, Training, & Outreach (1/1/18 - 12/31/18) Illinois Science and Energy Innovation Foundation (ISEIF): Linda Simpson, PI at Eastern Illinois University; Wendy A. Rogers & Paul Francisco, co-principal investigators for University of Illinois.
- Su Jin Lee (PI), Jon Sanford and Patty Griffiths received a Field Initiated Program award from the National Institute on Disability, Independent Living and Rehabilitation Research (NIDILRR). The award will support the three-year project "Considerations for Caregivers and Care Recipients During Bathroom Activity Performance". The immediate output of the study will be an evidence base for design criteria for bathroom design interventions that will meet the specific toilet transfer needs of the dyadic target population
- Application for Locational Intelligence and Geospatial Navigation (ALIGN) team, led by Principal Investigators Jon Sanford & Subhro Guhathakurta, received a Field Initiated Program award from the National Institute on Disability, Independent Living and Rehabilitation Research (NIDILRR). The award will support the team for a three-year effort to produce a prototype of ALIGN 2.0 that will enhance the effectiveness and extend the utility of the existing database and routing algorithm through the inclusion and application of real-time barriers to community mobility.
- Ted Johnson, Brian Jones, and Carolyn Clevenger were awarded a seed grant by Atlanta Clinical & Translational Science Institute (ACTSI) Health Innovation Program Seed Grant. This award was for their project titled, "*A*ssessing *G*ait Speed to *I*nform Frait*L*y *E*valuation (AGILE)", which is related to their TechSAge project D1.3, "A Mobile Application to Measure Gait Speed".
- Jon Sanford and Elena Gonzalez were awarded the Georgia Tech "GT FIRE Mini" award to support food and beverages for monthly meetings of Design and Technologies for Healthy Aging (DATHA) for the 2015-2016 school year.

Students Thesis/Projects Supported by TechSAge
- Ariel Kapusta defended Ph.D. dissertation proposal: "Optimization and Simulation for Robotic Assistance with Assistive Tasks"
- Phillp Grice defended Ph.D. dissertation: "Assistive mobile manipulation for users with severe motor impairments" (2017, August).
- Rachel Stuck defended Master's thesis "Understanding dimensions of trust between older adults and human or robot care providers" (2017).

Internships Supported by TechSAge
- Nadia Ferrer, B.S. student in Engineering Psychology, Tufts University (Summer 2017)
- Christelle Montreuil, Ph.D. student in Universal Design & Accessibility, Université Laval, Quebec, Canada (Fall 2015)

App Development Awards supported by TechSAge
- Ljilja Kascak was awarded $5000 to support development of MS Assistant, a health monitoring mobile application for people with Multiple Sclerosis.
- Yilin (Elaine) Liu was awarded $3000 to support development of GatePal, an airport wayfinding application that provides navigational information and activity planning information (e.g. flight schedule, time for each activity) to older adult travelers.

Awards
Center Awards/Achievements
- TechSAge was selected as a finalist for the 2016 Atlanta Magazine Groundbreaker awards. The 2016 groundbreaker selections were focused on making Atlanta an "all-ages" city.

Faculty Awards/Achievements
- Carolyn Phillips names interim director of AMAC Accessibility (2017, November)
- Jon Sanford was inducted as a fellow of the Gerontological Society of America (2017).
- Wendy Rogers began her appointment at the University of Illinois in January, 2017. She was appointed as the Shahid and Ann Carlson Khan Professor of Applied Health Sciences.
- Wendy Rogers was inducted as a Fellow of the Gerontological Society of America (2016, November).
- Wendy Rogers received the 2014 Oliver Hansen Outreach Award from the Human Factors and Ergonomics Society recognizing "significant activities that broaden awareness of the existence of the human factors/ergonomics profession and the benefits it brings to humankind."
- Jon Sanford was awarded the 2014 Outstanding Research and Scholarship Award, College of Architecture, Georgia Institute of Technology.

Student Awards/Achievements
- Achyuthkumar Sanath received an honorable mention award for the 2016 RESNA Student Scientific Paper Competition for paper titled, "Analysis of the Effect of a Rear Wall Grab Bar configuration on the Fall Risk Associated with Toilet Transfer in Older Adults with Mobility Impairment". (2016, July).
- Christina Harrington received the 2015 Human Factors and Ergonomics Society (HFES) Aging Technical Group Scholarship for her proposal, "Evaluating the Most Effective Format of Quick-Start Guide to Aid Older Adults in Performing Gesture-based Interactions.
- Megan Rich presented her work titled, "Tool Usage by an Assistive Mobile Manipulator for Activities of Daily Living", at the Petit Fellowship Final Presentations Event (2015, November)

Georgia Tech President's Undergraduate Research Award (PURA)
- Hiyong Byun (Human Factors and Aging Lab)
- Megan Rich (Healthcare Robotics Lab)

Community Outreach and Media
Internet
- Skilled Nursing News (2018, April). TechSAge Co-Director Dr. Wendy Rogers featured in article: Providers, Residents Must Be Partners with Technology – Not Just Users. https://skillednursingnews.com/2018/04/providers-residents-must-partners-technology-not-just-users/
- BBB Radio (2018, March) TechSAge Co-Director Dr. Wendy Rogers was interviewed by BBC's Aleks Krotoski for *The Digital Human* podcast and discussed the Human Factors and Aging Laboratory's work related to human-robot interaction and older adults. http://www.bbc.co.uk/programmes/b09tcvnw
- CNN (2017, September). Using technology to help older adults keep their independence: http://www.cnn.com/2017/09/25/health/older-adults-home-safety-technology/index.html
- Emory Daily Pulse (2016, September). "There's an app for that:" Using Technology to Improve Geriatric Care: http://www.emorydailypulse.com/2016/09/08/theres-app-using-technology-improve-geriatric-care/
- Georgia Tech School of Industrial Design News Story (2016, July). ID Student's Winning Design Supports Aging Travelers: http://www.id.gatech.edu/news/id-students-winning-design-supports-aging-travelers

- Institute for People and Technology (IPaT) Insider (2016, April). International Design Competition Brings Design for Aging with Disability to the Next Level: http://ipat.gatech.edu/international-design-competition-brings-design-aging-disability-next-level
- TechSAge Design Competition mentioned in Change Rangers article: In Praise of Hackathons in a Longevity Market (2015, November) http://www.changerangers.com/longevity-21st-century/2015/in-praise-of-hackathons-in-a-longevity-market/
- TechSAge Design Competition website publishing: www.techsagecompetition.com
- Dexinger News/Blog Entry (2015, November): TechSAge Design Competition 2016: Technologies to Support Healthy Aging with Disability http://www.dexigner.com/news/28342
- Dexigner competition listing (2015, November) http://www.dexigner.com/design-competitions
- Frog Design home page competition listing: TechSAge Competition (2015, December) http://www.frogdesign.com
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TV
- Fulton County Television (FGTV) Connect*:* Social Isolation. TechSAge investigators, Elena Gonzalez & Su Jin Lee, discuss opportunities for local older adults to participate in aging research at Georgia Tech on an episode of *Connect, a* program powered by the Fulton County Department of Senior Services. Start at ~9:18: https://youtu.be/tNO5598tqnY?t=9m7s