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University of South Florida  
College of Behavioral and Community Sciences  
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## **EDUCATION**

- Ph.D. University of South Florida, 1989  
Doctor of Philosophy in Experimental Psychology
- M.A. University of South Florida, 1985  
Master of Arts in Experimental Psychology
- M.A. University of the Pacific (California), 1979  
Master of Arts in Experimental Psychology
- B.A. Central College (Iowa), 1976  
Bachelor of Arts in Psychology

## **PROFESSIONAL EXPERIENCE**

### **University of South Florida**

College of Behavioral and Community Sciences, Department of Rehabilitation and Mental Health Counseling

- *Research Associate Professor* (2011-present)
- *Research Assistant Professor* (2008-2011)

Louis de la Parte Florida Mental Health Institute  
Department of Aging & Mental Health

- *Research Assistant Professor* (2008-2011)
- FMHI Office of Information Technology
- *Director - Office of Information Technology* (1992-2003)
- Department of Mental Health Law & Policy
- *Assistant in Research (Faculty)* (1989-1995)

USF Health

- *Department of Psychiatry* (1981-1987)

### **Rollins College**

Department of Psychology

- *Instructor* 1987-1988

### **Johns Hopkins School of Medicine**

Department of Psychiatry

- *Research Technician* (1979-1981)

## GRANTS AND CONTRACT FUNDED PROJECTS

### VA Smart Home Assistive Technology Service Project

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Funding Agency: Ubisense, Inc.  
Funding Level: \$48,708  
Role in Project: Investigator  
Description: Assessment of intelligent assistive cognitive orthotics developed in a clinical setting and exported for use in home-based care.  
Dates: 2012-2013

### MRI: Acquisition of a CAREN Virtual Reality System for Collaborative Research in Assistive and Rehabilitation Technologies

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Funding Agency: National Science Foundation  
Funding Level: \$642,852  
Role in Project: Investigator (PI, Rajiv Dubey, PhD)  
Description: Investigation of possible applications of the CAREN for assessing cognitive impairment to gait and balance variability.  
Dates: 2012-2015

### Extending Smart Home Technology for Cognitively Impaired Veterans to Delay Institutionalization (T-21)

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Funding Agency: U.S. Department of Veterans Affairs  
Funding Level: \$650,952  
Role in Project: Investigator (PI, Jan Jasiewicz, PhD)  
Description: Assessment of intelligent assistive cognitive orthotics developed in a clinical setting and exported for use in home-based care.  
Dates: 2011-2012

### Changes in Movement Variability and Functional Status in Veterans with Traumatic Brain Injury receiving rehabilitation in the JAHVA Polytrauma Transitional Rehabilitation Program (PTRP) and Student Veterans

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Funding Agency: U.S. Department of Defense  
Funding Level: \$198,000  
Role in Project: Principal Investigator  
Description: Novel assessment as a method for detecting mild traumatic brain injury in veterans.  
Dates: 2010-2013

### Telemedicine for Mental Health Services for the Linguistically Isolated: A Pilot Study (R03)

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Funding Agency: Agency for Healthcare Research & Quality  
Funding Level: \$100,000  
Role in Project: Co-Investigator (PI, Yuri Jang, PhD)  
Description: Assessed potential for the delivery of cognitive-based therapies via telemedicine to Korean elders.  
Dates: 2011-2012

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### Telemedicine for Behavioral Health: State Reimbursement Policies, Procedures and Outcomes

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Funding Agency: Florida Agency for Health Care Administration  
Funding Level: \$145,279  
Role in Project: Investigator (PI, David Chiriboga, PhD)  
Description: Investigation of state reimbursement policies and procedures as well as implementation outcomes.  
Dates: 2011-2012

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### Evaluation and Integration of an Automatic Fall Prediction System R21

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Funding Agency: Agency for Healthcare Research & Quality  
Funding Level: \$299,452  
Role in Project: Principal Investigator  
Description: Exploration of a measure of path variability as a predictor of impending falls in residents of assisted living facilities.  
Dates: 2009-2012

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### Design of a Patient-Centered “Welcome Home” for Independent Living

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Funding Agency: U.S. Department of Veterans Affairs  
Funding Level: \$2,980,000  
Role in Project: Investigator (PI, Jan Jasiewicz, PhD)  
Description: Create a prototype intelligent residential environment to facilitate the recovery and function of veterans with moderate to severe traumatic brain injury.  
Dates: 2010-2012

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### Preventing Adverse Events Associated with Mobility

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Funding Agency: U.S. Department of Veterans Affairs National Center for Patient Safety  
Funding Level: \$640,000  
Role in Project: Investigator  
Description: Use of high precision tracking technologies to prevent elopement and falls in veterans with cognitive impairment related to dementia.  
Dates: 2009-2011

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### Home Evaluation of Visual Exit Barriers in Dementia-Related Wandering

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Funding Agency: U.S. Department of Veterans Affairs  
Funding Level: \$405,280  
Role in Project: Co-Principal Investigator  
Description: Use of precision tracking systems to determine the effectiveness of two types of elopement management techniques developed for persons with dementia who wander.  
Dates: 2008-2010

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### HSR&D/RR&D Research Center of Excellence: Maximizing Rehabilitation Outcomes

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Funding Agency: U.S. Department of Veterans Affairs  
Funding Level: \$4,850,000  
Role in Project: Investigator  
Description: Application of precision tracking technologies in the assessment of fall risk and elopement likelihood in veterans with cognitive impairment

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Dates: related to dementia.  
2009-2013

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Locomotor Variability in ALF Residents with AD MCI

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Funding Agency: Johnnie B. Byrd Sr. Alzheimer's Research Center  
Funding Level: \$51,890.00  
Role in Project: Principal Investigator  
Description: Exploration of tracking technologies as a means of detecting small movement pattern changes indicative of cognitive impairment in residents of assisted living facilities.  
Dates: 2007-2009

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Safe Wandering at Home: Clinical and Research Interventions to Reduce Hazardous Wandering by Persons with Dementia

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Funding Agency: U.S. Department of Veterans Affairs  
Funding Level: \$14,175.00  
Role in Project: Co-Principal Investigator  
Description: Examination of passive technologies to manage wandering by veterans in home environments.  
Dates: 2006-2008

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Evaluation of Stakeholder Attitudes towards Technologies to Control Wandering

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Funding Agency: University of South Florida  
Funding Level: \$7,000  
Role in Project: Principal Investigator  
Description: Investigate caregiver opinions on the potential effectiveness of existing technologies for managing wandering in persons with dementia living in the community, and on the elements that such technologies should possess from the user's perspective.  
Dates: 2005-2005

## **PUBLICATIONS**

### *Patent*

Kearns, W. D., Fozard, J., & Kostis, E. (2011). Human and physical asset movement pattern analyzer. Patent number 7978085-1. University of South Florida.

### *Refereed Journal Articles*

Kearns, W. & Fozard, J.L. (2016) Evaluating Gerontechnologies: Proof of concept is necessary, but not sufficient. *Gerontechnology*, 14(3), 139-145.  
[dx.doi.org/10.4017/gt.2016.14.3.007.00](http://dx.doi.org/10.4017/gt.2016.14.3.007.00)

Bulat, T., Kerrigan, M. V., Rowe, M., Kearns, W., Craighead, J. D., & Ramaiah, P. (2016). Field evaluations of tracking/locating technologies for prevention of missing incidents. *American Journal of Alzheimer's Disease and Other Dementias*, Advance online publication. doi:10.1177/1533317515619479

Kearns, W., Fozard, J., & Nams, V. (2016). Movement path tortuosity in free ambulation: Relationships to age and brain disease. *IEEE Journal of Biomedical and Health Informatics*, Advance online publication. doi:10.1109/jbhi.2016.2517332

- Kearns, W. D., Fozard, J. L., Ray, R. D., Scott, S., Jasiewicz, J. M., Craighead, J. D., & Pagano, C. V. (2016). Movement path tortuosity predicts compliance with therapeutic behavioral prompts in patients with traumatic brain injury. *Journal of Head Trauma Rehabilitation, 31*(1), E20-E27. doi:10.1097/htr.0000000000000126
- Kearns, W. D., Scott, S., Fozard, J. L., Dillahunt-Aspillaga, C., & Jasiewicz, J. M. (2016). Decreased movement path tortuosity is associated with improved functional status in patients with traumatic brain injury. *Journal of Head Trauma Rehabilitation, 31*(1), E13-E19. doi:10.1097/htr.0000000000000125
- Kearns, W. D., Fozard, J. L., Schonfeld, L., Scott, S., & Marshall, K. (2015). Elevated movement path tortuosity in voluntary outdoor ambulation in community-dwelling veterans with a history of traumatic brain injury. *Journal of Head Trauma Rehabilitation, 30*(1), E8-14. doi:10.1097/htr.0000000000000021
- Barakat, A., Woolrych, R., Kort, H. S. M., Sixsmith, A., & Kearns, W. D. (2013). E-Health technology competencies for health professionals working in home care to support older adults to age in place: Outcome of a two day collaborative workshop. *Medicine 2.0, 2*(2), e10-e-12. doi:10.2196/med20.2711
- Kearns, W. D., Jasiewicz, J. M., Fozard, J. L., Webster, P., Scott, S., Craighead, J., Bowen, M. E., McCarthy, J. (2013). Temporo-spacial prompting for persons with cognitive impairment using smart wrist-worn interface. *Journal of Rehabilitation Research and Development, 50*(10), vii-xiv. doi:10.1682/JRRD.2013.12.0261
- Applegarth, S.P, Rowe, M.R., Kearns, W.D, Fozard, J.L, Bowen, M.E. (2013) Activation thresholds and operating characteristics of commercial alarm products that may be used to provide surveillance for dementia caregivers. *Gerontechnology, 11*(3), 480-487.
- Kearns, W. D., Fozard, J., Becker, M. A., Jasiewicz, J., Craighead, J., Holtsclaw, L. et al. (2012). Path tortuosity in everyday movements of elderly persons increases fall prediction beyond knowledge of fall history, medication use, and standardized gait and balance assessments. *Journal of the American Medical Directors Association, 13*(7), 665.e7-665.e13. doi:10.1016/j.jamda.2012.06.010.
- Kearns, W. D., & Fozard, J. (2012). The sensitive residence: Predicting health changes using sensor networks. *Gerontechnology, 11*(2), 272. 10.4017/gt.2012.11.02.047.00.
- Kearns, W. D., Fozard, J., Becker, M. A., Dion, C., Craighead, J., & Jasiewicz, J. (2012). Something in the way she moves: Falls and fractal dimension. *Gerontechnology, 11*(2), 272-273. doi:10.4017/gt.2012.11.02.188.00.
- Jasiewicz J, Kearns W, Craighead J, Fozard JL, Scott S, McCarthy J. (2011) Smart rehabilitation for the 21st century: The Tampa Smart Home for veterans with traumatic brain injury. *Journal of Rehabilitation Research & Development, 48*(8), vii-viii. doi:10.1682/JRRD.2011.07.0129
- Kearns, W. D., Nams, V. O., Fozard, J. L., & Craighead, J. (2011) Wireless telesurveillance system for detecting dementia. *Gerontechnology, 10*(2), 90-102. doi:10.4017/gt.2011.10.2.004.00
- Bowen, M.E, Craighead, J, Wingrave, C.A, Kearns, W.D. (2010) Real-time locating systems (RTLS) to improve fall detection. *Gerontechnology, 9*(4), 464-471. doi:10.4017/gt.2010.09.04.005.00
- Kearns W.D. (2010). Elder path tortuosity covaries with MMSE geographical orientation subscale. *Gerontechnology, 9*(2), 176-177. doi:10.4017/gt.2010.09.02.020.00

- Kearns, W.D. (2010). Of falls and fractals: My career with my mentor, colleague and friend, Professor James L. Fozard. *Gerontechnology*, 9(3), 388-396. doi:10.4017/gt.2010.09.03.010.00
- Kearns, W. D., Nams, V., & Fozard, J. (2010). Tortuosity in movement paths is related to cognitive impairment. *Methods of Information in Medicine*, 49(6), 592-598. doi:10.3414/ME09-01-0079
- van Bronswijk, J. E. M. H., & Kearns, W. D. (2009). Preventive health engineering in earlier and later life. *Gerontechnology*, 8(2), 76-81. doi:10.4017/gt.2009.08.02.005.00.
- King-Kallimanis, B., Schonfeld, L., Molinari, V. A., Algase, D., Brown, L. M., Kearns, W. D. et al. (2009). Longitudinal investigation of wandering behavior in Department of Veterans Affairs nursing home care units. *International Journal of Geriatric Psychiatry*, 25(2), 166-174. doi:10.1002/gps.2316.
- Bronswijk, J., Bouma, H. H., Fozard, J. L., Kearns, W. D., Davison, G. C., & Tuan, P. C. (2009). Defining gerontechnology for R&D purposes. *Gerontechnology*, 8(1), 3-10. doi:10.4017/gt.2009.08.01.002.00.
- Kearns, W. D., & Fozard, J. (2008). Locomotor variability assessment of the elderly using ultra wideband radio. *Telemedicine and E-Health*, 14(6), 611-620. doi:10.1089/tmj.2008.8493.
- Kearns, W. D., Algase, D., Moore, D. H., & Ahmed, S. (2008). Ultra wideband radio: A novel method for measuring wandering in persons with dementia. *Gerontechnology*, 7(1), 48-57. doi:10.4017/gt.2008.07.01.005.00.
- Kearns W.D. & Fozard J.L. (2008). Ultra wideband assessment of locomotion in elderly. *Gerontechnology*, 7(2), 138. doi:10.4017/gt.2008.07.02.075.00.
- Fozard, J. L., & Kearns, W. D. (2008). Communication technology changes how we age. *Gerontechnology*, 7(2), 106. doi:10.4017/gt.2008.07.02.043.00.
- Bronswijk, J., Fozard, J. L., Kearns, W. D., Davison, G. C., & Tuan, P. C. (2008). Implementing gerontechnology. *Gerontechnology*, 7(3), 325-327. doi:10.4017/gt.2008.07.03.007.00.
- Schonfeld, L., King-Kallimanis, B., Brown, L. M., Davis, D. M., Kearns, W. D., Molinari, V. Werner, D. H., Beattie, E. R., & Nelson, A. (2007). Wanderers with cognitive impairment in VA nursing home care units. *Journal of the American Geriatrics Society*, 55(5), 692-699. doi:10.1111/j.1532-5415.2007.01135.x
- Kearns W.D. & Fozard J. L. (2007). High-speed networking and embedded gerontechnologies. *Gerontechnology*, 6(3), 135-146. doi:10.4017/gt.2007.06.03.003.00
- Kearns, W. D., Rosenberg, D., West, L., & Applegarth, S. (2007). Attitudes and expectations of technologies to manage wandering behavior in persons with dementia. *Gerontechnology*, 6(2), 89-101. doi:10.4017/gt.2007.06.02.004.00
- Feldman, D. M., & Kearns, W. D. (2007). The mental health needs and perspectives of culturally deaf older adults living in two counties in Florida. *JADARA*, 40(2), 5-18.
- Bronswijk, J., Kearns, W. D., & Normie, L. R. (2007). ICT infrastructures in the aging society. *Gerontechnology*, 6(3), 129-134. doi:10.4017/gt.2007.06.03.002.00.
- Kearns, W. (2006). Community mobility: Driving and transportation alternatives for older persons [Book Review]. *Clinical Gerontologist*, 30(2), 111 – 112.
- Powell-Cope, G., Moore, D., Kearns, W. D., Baptiste, A., Lloyd, J., & Applegarth, S. (2005). VISN 8 patient safety center of inquiry: Direct support for clinicians preventing wandering and associated adverse events for veterans with dementia. *TIPS - Topics in Patient Safety*, 5(6), 3-5. Retrieved from [http://www.va.gov/ncps/TIPS/Docs/TIPS\\_NovDec05.pdf](http://www.va.gov/ncps/TIPS/Docs/TIPS_NovDec05.pdf).

- Peters, R. H., Strozier, A. L., Murrin, M. R., & Kearns, W. D. (1997). Treatment of substance-abusing jail inmates: Examination of gender differences. *Journal of Substance Abuse Treatment, 14*(4), 339-349. doi:10.1016/S0740-5472(97)00003-2
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- Peters, R. H., Kearns, W. D., Murrin, M. R., Dolente, A. S., & May, R. L. (1993). Examining the effectiveness of in-jail substance abuse treatment. *Journal of Offender Rehabilitation, 19*(3-4), 1-39. doi:10.1300/J076v19n03\_01
- Peters, R. H., May, R. L., & Kearns, W. D. (1992). Drug treatment in jails: Results of a nationwide survey. *Journal of Criminal Justice, 20*(4), 283-295. doi:10.1016/0047-2352(92)90014-Z
- Peters, R. H., Kearns, W. D., Murrin, M. R., & Dolente, A. S. (1992). Psychopathology and mental health needs among drug-involved inmates. *Journal of Prison and Jail Health, 11*(1), 3-25.
- Peters, R. H., Kearns, W. D., Murrin, M. R., & Dolente, A. S. (1992). Effectiveness of in-jail substance abuse treatment: Evaluation results from a National Demonstration Program. *American Jails, 6*(1), 98-104.
- Peters, R. H., & Kearns, W. D. (1992). Drug abuse history and treatment needs of jail inmates. *American Journal of Drug and Alcohol Abuse, 18*(3), 355-366. doi:10.3109/00952999209026072
- Kimmel, H. D., Kearns, W. D., & Anderson, D. E. (1992). Extinction instead of incubation following classical aversive conditioning in dogs. *Integrative Psychological and Behavioral Science, 27*(4), 356-370. doi:10.1007/BF02691170
- Kearns, W. D. (1992). Merging data from different sources: Combining forensic mainframe data with information collected on personal computers. *American Jails, 6*(1), 21-23.
- May, R., Peters, R. H., & Kearns, W. D. (1990). The extent of drug treatment in jails: A 7 summary report. *American Jails, 4*(3), 32-35.
- Anderson, D. E., Murphy, P., & Kearns, W. (1986). High calcium intake does not prevent stress-salt hypertension in dogs. *Integrative Psychological and Behavioral Science, 21*(1), 25-31. doi:10.1007/BF02995040
- Anderson, D. E., Sharinus, M. W., & Kearns, W. D. (1984). Urinary sodium concentration decreases in avoidance-saline hypertension. *Pavlovian Journal of Biological Science, 19*(2), 104.
- Anderson, D. E., Kearns, W. D., & Worden, T. J. (1983). Potassium infusion attenuates avoidance-saline hypertension in dogs. *Hypertension, 5*(4), 415-420. doi:10.1161/01.HYP.5.4.415
- Anderson, D. E., Kearns, W. D., & Better, W. E. (1983). Progressive hypertension in dogs by avoidance conditioning and saline infusion. *Hypertension, 5*(3), 286-291. doi:10.1161/01.HYP.5.3.286
- Kearns, W. D., Better, W. E., Daley, L. A., & Anderson, D. E. (1981). A tether system for psychophysiological studies in the dog. *Behavior Research Methods & Instrumentation, 13*(3), 323-327. doi:10.3758/BF03202021

### Books

Nomellini, S., & Kearns, W. D. (1979). *An instructor's manual to accompany "Introduction to Experimental Psychology"* (1st ed.). New York, NY: Holt Rinehart and Winston.

#### *Book Chapters*

Kearns, W. D., & Fozard, J. L. (2015). Smart homes, RFID and wandering. In J. van Hoof, G. Demiris & E. J. M. Wouters (Eds.), *Handbook of smart homes, health care and well-being* (pp. 1-8). Geneva, Switzerland: Springer International Publishing. 10.1007/978-3-319-01904-8\_50-1

Kearns, W., & Fozard, J. (2013). Location-aware technologies for studying resident paths and spatial usage patterns. In A. Joseph & U. Nanda (Eds.), *Development of tools for healthcare environments research and practice* (pp. 43-44). McLean, VA: Environmental Design Research Association.

Kearns, W.D., & Fozard J. L. (2012). Tracking natural human movements identifies differences in cognition and health. In J. C. Augusto, M. Huch, A. Kameas, J. Maitland, P. McCullagh, J. Roberts, et al. (Eds.), *Handbook of ambient assisted living*, (pp. 331-345). Amsterdam, The Netherlands: IOS Press. doi:10.3233/978-1-60750-837-3).

Kearns, W. D., Fozard, J. L., & Lamm, R. (2011). How knowing who where and when can change healthcare delivery. In C. Röcker, & M. Ziefle (Ed.), *Smart healthcare applications and services* (139-160). Aachen, Germany: IGI Global. doi:10.4018/978-1-60960-469-1.ch007

Kearns, W. D., & Moore, D. H. (2008). RFID: A tool for measuring wandering in persons with dementia. In A. Mihailidis (Ed.), *Technology and aging: Selected papers from the 2007 International Conference on Technology and Aging* (pp. 154-161). Amsterdam, The Netherlands; Washington, DC: IOS Press.

Kearns, W. D., & Fozard, J. L. (2007). Technologies to manage wandering. In A. Nelson, & D. L. Algase (Eds.), *Evidence-based protocols for managing wandering behaviors* (pp. 277-298). New York, NY: Springer.

Fozard, J. L., & Kearns, W. D. (2007). Technology, aging, and communication. In G. Lesnoff-Caravaglia (Ed.), *Gerontechnology: growing old in a technological society* (pp. 271-291). Springfield, IL: Charles C. Thomas.

Chiriboga, D. A., & Kearns, W. D. (2007). In K. S. Markides (Ed.), *Encyclopedia of health & aging* (pp. 557-559). Los Angeles, CA: Sage Publications.

Kearns, W. D. (2003). Libraries as publishers of digital video. In A. Hanson, & B. L. Levin (Eds.), *Building a virtual library* (pp. pp. 37-51). Hershey, PA: IDEA Group Publishing.

Spielberger, C., Crane, R., Kearns, W. D., Pellegrin, K., Rickman, R., & Johnson, E. (1991). Anger and anxiety in essential hypertension. In I. G. Sarason, C. D. Spielberger, & J. M. T. Brebner (Eds.), *Stress and emotion: Anxiety, anger, and curiosity, volume 14* (pp. 265-283). New York, NY: Hemisphere Publishing Corp

#### *Technical Reports*

Kearns, W. D. (2008). *Florida's emergent gerontechnologies* (Agency for Health Care Administration Report Series; AHCA Series No. 220-109). Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute.

Kearns, W. D., & Ji, Y. (2007). *Provider effects on racial/ethnic disparities in the Florida Medicaid population* (Agency for Health Care Administration Report Series; AHCA Series No. 220-93). Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute.



- Chiriboga, D. A., Brown, L., Dupree, L., Cho, S., Cohen, D., Gum, A. et al. (2006). *The Florida Alzheimer's Disease Medicaid Waiver Program: An evaluation* (Agency for Health Care Administration Report Series; AHCA Series No. 220-73). Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute.
- Kearns, W. D., Mitchell, G., Kwak, J., & Kim, G. (2005). *Urban and rural HCBS service penetration in Florida*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute.
- Kearns, W. D. Mitchell, G., Kwak, J., & Kim, G. (2005). *Urban vs. rural access to health and mental health services in Florida* (Agency for Health Care Administration Report Series; AHCA Series No. 220). Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute.
- Chiriboga, D. A., Jang, Y., Becker, M. A., Chen, H.-J., Greenbaum, P. E., Brown, L. M. et al. (2005). *Mental health disparities in the state of Florida: An evaluation*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute.
- Chiriboga, D. A., Becker, M., Brown, L., Anderson, S., Cohen, D., Dupree, L. et al. (2005). *The Florida Alzheimer's disease Medicaid waiver program: An evaluation of Alzheimer's beneficiaries prior to program initiation* (Agency for Health Care Administration Report Series; AHCA Series No. 220-64). Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute.
- Kearns, W. D. (1994). *Annual report for fiscal year 1993 juvenile justice community reentry program: A report to the State of Florida Department of Health and Rehabilitative Services*. Tampa, FL: University of South Florida, Florida Mental Health Institute.
- Kearns, W. D. (1993). *Annual report for fiscal year 1992 juvenile justice community reentry program: A report to the State of Florida Department of Health and Rehabilitative Services*. Tampa, FL: University of South Florida, Florida Mental Health Institute.
- Kearns, W. D. (1992). *Annual report for fiscal year 1991 juvenile justice community reentry program: A report to the State of Florida Department of Health and Rehabilitative Services*. Tampa, FL: University of South Florida, Florida Mental Health Institute.
- Kearns, W. D. (1991). *Annual report for fiscal year 1990 juvenile justice community reentry program: A report to the State of Florida Department of Health and Rehabilitative Services*. Tampa, FL: University of South Florida, Florida Mental Health Institute.
- Kearns, W. D., May, R., & Peters, R. H. (1990). *Drug treatment services in jails: Results of a national survey* (NCJRS no. 146626). Washington, DC: American Jail Association/National Institute of Justice.

#### *Conference Proceedings*

- Kearns, W. D., & Moore, H. (2007). RFID technology: A novel observational and measurement method in dementia-related wandering. In *Proceedings of FICCDAT/ICTA: the 2nd International Conference on Technology and Aging*. Toronto, Ontario, Canada: Rehabilitation Engineering and Assistive Technology Society of North America.
- Fozard, J. L., & Kearns, W. D. (2007). Persuasive technologies which change attitudes and behaviors can support the ambitions and activities of older persons. In *Proceedings of the March 2007 International Conference on Gerontic Technology and Service Management*. Nantou, Taiwan, ROC: Nan Kai Institute of Technology.
- Barbeau, S., Winters, P., Georggi, N., Labrador, M., Perez, R., Kearns, W. D. et al. (2007). Travel assistance device: electronic mobility and transportation guidance assistance for persons with cognitive disabilities. In *Proceedings of the Workshop on Assisted Cognition*. Rochester, NY: University of Rochester.

- Fozard, J. L., & Kearns, W. D. (2006). Persuasive gerontechnology: Reaping technology's coaching benefits at older age. In W. IJesselstein, Y. d. Kort, C. Midden, B. Eggen, & E. v. d. Hoven (Eds.), *Persuasive technology: First International Conference on Persuasive Technology for Human Well-Being* (pp. 199-202). Berlin, Germany: Springer-Verlag.
- Kearns, W. D. (2003). Streaming video databases in support of mental health education and training. In N. Callaos (Ed.), *Conference proceedings of the SCI 2003: The 7th world multiconference on systemics, cybernetics, and informatics: Volume III, Communication, network and control systems, technologies and applications* (pp. 1-3). Orlando, FL: International Institute of Informatics and Systemics.
- Anderson, D., Sharinus, M., & Kearns, W. D. (1984). Salt loading decreases intraday cardiac variability in dogs. In *Stress, reactivity and cardiovascular disease: Proceedings of the working conference* (pp. 229-230). Bethesda, MD: National Institutes of Health.
- Anderson, D., Kearns, W. D., & Haley, J. H. (1984). Blood pressure monitoring in laboratory animals during behavioral experiments. In J. A. Herd, & A. M. Gotto (Eds.). *Cardiovascular instrumentation: Proceedings of the Working Conference on Applicability of New Technology to Biobehavioral Research, May 16-19, 1982, Houston, Texas* (pp. 41-53). Bethesda, MD: National Institutes of Health.

*Conference Abstracts (Peer Reviewed)*

- Kearns, W. & Fozard, J.L. (2014). An example of a university/government relationship in the North American chapter of the ISG. *Gerontechnology*, 13(2), 155-156.  
doi:10.4017/gt.2014.13.02.101.00
- Kearns, W.D, Fozard, J.L., Webster, P. & Jasiewicz, J. (2014) Location aware smart watch to support aging in place. *Gerontechnology*, 13(2), 223. doi:10.4017/gt.2014.13.02.026.00
- Fozard J.L., & Kearns W.D. (2010). Where and how are you? Location aware technologies to assess gait and everyday activities. *Gerontechnology*, 9(2), 87.  
doi:10.4017/gt.2010.09.02.028.00
- Kearns, W. D., & Fozard, J. L. (2009). A multidisciplinary challenge of benefits and risks: Preventive health engineering in earlier and later life. *Journal of Nutrition, Health & Aging*, 13(Suppl 1), S32.
- Kearns, W. D., & Fozard, J. L. (2009). Evaluation of wandering by residents in an assisted living facility (ALF) using ultra wideband radio RTLS. *Journal of Nutrition, Health & Aging*, 13(Suppl 1), S54.
- Beattie, E., McCrow, J. M., Kearns, W. D., & Applegarth, S. P. (2009). Attitudes and expectations of technologies to manage high risk wandering and elopement in persons with dementia: An Australian perspective. *Gerontologist*, 49(Suppl 2), 93-93.  
doi:10.1093/geront/gnp147

**CONFERENCE PRESENTATIONS**

***International***

- Kumar, A., Tong Lau, C., Chan, S., Ma, M. & Kearns, W.D. (Accepted – August 17-20, 2016). A unified grid-based wandering pattern detection algorithm. Paper submitted to the 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society in Orlando, FL.
- Kearns, W. D. (2015, November). *International Society for Gerontechnology*. Paper presented at the meeting of the Gerontological Society of America, Orlando, FL.

- Kearns, W. D. (2015, November). *The tortuous path to TBI recovery: Mapping the punch-drunkard's walk*. Paper presented at the Brain Injury Association of America Mitchell Rosenthal Memorial Webinar, Vienna, VA. [sponsored by the *Journal of Head Trauma Rehabilitation*].
- Kearns, W. D. (2015, May). *Extending smart home technology for persons with cognitive impairment*. In S. Robinovitch (Chair), Technologies for managing your home and making it/you safer. Panel presented at the meeting of the John K. Friesen Conference, Vancouver, BC, Canada.
- Kearns, W. D. (2015, April). *Precise RTLS in healthcare can yield new understanding and unexpected benefits*. In K. Mann (Chair), The US Department of Veterans Affairs Smart Home Project: Process, methods, and (unexpected) outcomes. Paper presented at the meeting of the Intelligent Health Association, Chicago, IL.
- Kearns, W. D., & Fozard, J. L. (2014, June). *An example of a university/government relationship in the North American chapter of the ISG*. In R. Woolrych (Chair) "Inter-university and inter-disciplinary collaboration in Gerontechnology: Lessons from North America." Symposium presented at the meeting of the International Society of Gerontechnology, Taipei, Taiwan.
- Fozard, J. L., & Kearns, W. D. (2014, June). *Talking, walking, and falling: Technology-based assessments and interventions*. Keynote presented at the meeting of the International Society of Gerontechnology, Taipei, Taiwan.
- Kearns, W.D., Fozard, J.L, Webster, P., & Jasiewicz, J. (2014, June). *Location aware smart watch to support aging in place*. Paper presented at the meeting of the International Society of Gerontechnology, Taipei, Taiwan.
- Kearns, W. D., (2014, April). *Tracking technologies for measuring mobility of older persons in home settings*. Panel presented at the meeting of the CLSA-Tech (Canadian Longitudinal Study on Aging), Toronto, ON, Canada. [Invited presentation].
- Kort, HSM, Woolrych, R, Sixsmith, A, & Kearns, W. D. (2013, September). *Health professional competencies for e-health technology to age in place: Outcome of a two day collaborative workshop*. Paper presented at the meeting of the Medicine 2.0: Social Media, Mobile Apps, and Internet/Web 2.0 in Health, Medicine and Biomedical Research, London, UK.
- Kearns, W.D, & Fozard, J.L. (2013, June) *Tele-surveillance for falls in ambient assisted living facilities*. Paper presented at the meeting of the International Association for Gerontology and Geriatrics (IAGG) World Congress of Gerontology and Geriatrics: Digital Ageing: A new horizon for health care and active aging. Seoul, Korea.
- Kort, H.S.M, Fozard, J.L. & Kearns, W.D. (2013, June) *Building physics requirements (BPR) for life enrichment care facilities (LCEF)*. Paper presented at the meeting of the International Association for Gerontology and Geriatrics (IAGG) World Congress of Gerontology and Geriatrics: Digital Ageing: A new horizon for health care and active aging. Seoul, Korea.
- Kearns, W. D. (2012, July). *Falls and dementia: Predicting health changes using sensor networks*. Paper presented at the meeting of the Utrecht University of Applied Sciences Health and Engineering Summer Program, Utrecht, The Netherlands [Invited speaker].
- Kearns, W. D., Fozard, J., Becker, M. A., Dion, C., Craighead, J., & Jasiewicz, J. (2012, June). *Something in the way she moves: Falls and fractal dimension*. Paper presented at the meeting of the ISG\*ISARC (International Society of Gerontechnology and the International Symposium of Automation and Robotics in Construction) Eindhoven, The Netherlands.

- Kearns, W. D., & Fozard, J. (2012, June). (Conveners). Symposium: "The sensitive residence: Predicting health changes using sensor networks". Symposium conducted at the meeting of the ISG\*ISARC (International Society of Gerontechnology and the International Symposium of Automation and Robotics in Construction) Eindhoven, The Netherlands.
- Kearns, W. D. (2012, May). *Transdisciplinary working*. Paper presented at the meeting of the Canadian Institutes of Health Research Institute on Aging's Summer Program on Aging, Vancouver, BC, Canada [Invited speaker].
- Kearns, W. D. (2012, May). *Publishing and dissemination*. Paper presented at the meeting of the Canadian Institutes of Health Research Institute on Aging's Summer Program on Aging, Vancouver, BC, Canada [Invited speaker].
- Kearns, W. D. (2012, May). *Developing practical solutions for older people*. Paper presented at the meeting of the Canadian Institutes of Health Research Institute on Aging's Summer Program on Aging, Vancouver, BC, Canada [Invited speaker].
- Kearns, W. D., & Fozard, J. L. (2012, March). *Locomotor variability and fall risk in seniors with dementia*. Paper presented at the meeting of the International Exchange of Research and Practice in e-Health (iKOP project) Seminar: "Competencies for e-Health Use," Tampa, FL [Invited speaker, joint conference between the University of Utrecht and USF].
- Kearns, W. & Craighead, J. (2010, September). *Location aware technologies: Implications for healthcare research and practice*. Paper presented at the meeting of the Ubisense User Conference at Jesus College, Cambridge University, UK.
- Kearns, W (2010, May). *Of falls and fractals: My career with my mentor, colleague and friend, Professor James L. Fozard*. Closing Plenary Speech presented at the meeting of the International Conference on Gerontechnology, Vancouver.
- Kearns W.D. (2010, May). Elder path tortuosity covaries with MMSE geographical orientation subscale. In C.G. Willems (Chair). Symposium "The use of activity monitoring in care for persons with dementia (Willems, C.G.). Paper presented at the meeting of the International Conference on Gerontechnology, Vancouver, Canada.
- van Bronswijk, J. E. M. H., & Kearns, W. D. (2009, July). *A multidisciplinary challenge of benefits and risks: Preventive health engineering in earlier and later life*. Paper presented at the meeting of the International Association of Gerontology and Geriatrics (IAGG), Paris, France.
- Kearns, W. D., & Fozard, J. L. (2009, July). *Evaluation of wandering by residents in an assisted living facility (ALF) using ultra wideband radio RTLS*. Paper presented at the meeting of the International Association of Gerontology and Geriatrics (IAGG), Paris, France.
- Kearns, W. D., & Fozard, J. L. (2009, September). *Evaluation of wandering by residents in an assisted living facility (ALF) using ultra wideband radio RTLS*. Paper presented at the meeting of the International Research Consortium on Wandering: VISN8 Patient Safety Center of Inquiry, Clearwater, FL.
- Beattie, E., Kearns, W. D., & Applegarth, S. P. (2009, September). *Australian family and professional carer attitudes to technologies used to manage wandering in persons with dementia*. Paper presented at the meeting of the International Consortium on Wandering and Adverse Events, VISN8 Patient Safety Center of Inquiry, Clearwater, FL.
- Kearns, W. D., & West, L. (2009). *Locomotor variability in ALF residents with AD/MCI: Update*. Paper presented at the meeting of the International Consortium on Wandering and Adverse Events, VISN8 Patient Safety Center of Inquiry, Clearwater, FL.

- Kearns, W. D. (2008, November). *Locomotor variability in ALF residents with dementia*. Poster presented at the meeting of the UK-US International Alzheimer's Disease Symposium, Tampa, FL.
- Kearns, W. D., & Fozard, J. (2008, September). *Locomotor variability assessment of the elderly using ultra wideband radio*. Paper presented at the meeting of the International Research Consortium on Wandering and Adverse Events: VISN8 Patient Safety Center of Inquiry, Tampa, FL.
- Kearns, W. D. (2008, May). *Locomotor variability in ALF residents with A/D MCI*. Keynote speech delivered at the meeting of the International Conference on Gerontic Technology and Service Management (Nan Kai Institute of Technology), Nan Tou, Taiwan, ROC.
- Kearns, W. D. (2008, May). *Communications technology and the elderly*. Master class conducted at the meeting of the International Conference on Gerontic Technology and Service Management (Nan Kai Institute of Technology), Nan Tou, Taiwan, ROC.
- Fozard, J. L., & Kearns, W. D. (2008, June). *Communication technology changes how we age*. Paper presented at the meeting of the International Society for Gerontechnology, Pisa, Italy.
- Kearns, W. D. (2008, March). *Locomotor variability in ALF Residents with AD/MCI*. Paper presented at the meeting of the International Research Consortium on Wandering: VISN8 Patient Safety Center of Inquiry, Tampa, Florida.
- Kearns, W. D. (2007, May). *Sensor networks for healthcare monitoring of the elderly*. Paper presented at the meeting of the Chin Min Institute of Technology, Nantou, Taiwan, ROC.
- Kearns, W. D. (2007, May). *Sensor networks for healthcare monitoring of the elderly*. Paper presented at the meeting of the International Conference on Gerontechnology and Service Management, Nantou, Taiwan, ROC.
- Kearns, W. D., & Moore, D. (2007, June). *RFID: A novel measure of wandering in dementia*. Paper presented at the meeting of the Festival of International Conferences on Caregiving Disability and Technology, International Conference on Technology and Aging (FICCDAT/ICTA), Toronto, Ontario, Canada.
- Kearns, W. D., & Fozard, J. L. (2007). *Persuasive technologies which change attitudes and behaviors can support the ambitions and activities of older persons*. Workshop conducted at the meeting of the International Conference on Gerontic Technology and Service Management (Nan Kai Institute of Technology), Nantou, Taiwan, ROC.
- Kearns, W. D. (2007). *Sensor networks for healthcare monitoring of the elderly*. Workshop conducted at the meeting of the Chaoyang University of Technology, Nantou, Taiwan, ROC.
- Schonfeld, L., Molinari, V., Brown, L. M., Kearns, W. D., & Kallimanis, B. (2006, December). *Wandering MDS analysis*. Paper presented at the meeting of the International Consortium on Wandering and Adverse Events, VISN8 Patient Safety Center of Inquiry, Tampa, FL.
- Fozard, J. L., & Kearns, W. D. (2006). *Persuasive GERONtechnology: Reaping technology's coaching benefits at older age*. Paper presented at the meeting of the International Conference on Persuasive Technology for Human Well-Being: Persuasive 2006, Eindhoven, Netherlands.
- Schonfeld, L., Kearns, W. D., Molinari, V., Brown, L., Kallimanis, B., Werner, D. et al. (2005, December). *Wandering behavior in VA nursing home care units*. Paper presented at the meeting of the International Consortium on Wandering and Adverse Events, VISN8 Patient Safety Center of Inquiry, Tampa, FL.

- Kearns, W. D., & West, L. (2005, December). *Technologies to control wandering: Stakeholders' attitudes*. Paper presented at the meeting of the International Consortium on Wandering and Adverse Events, VISN8 Patient Safety Center of Inquiry, Clearwater, FL.
- Kearns, W. D. (2001). *Internet2: High speed networking in support of research and training*. Paper presented at the meeting of the International Workshop on Digital and Computational Video, Tampa, FL.
- Kearns, W. D. (1988). *Cardiovascular concomitants of differential behavioral and motivational states in the telemetered baboon*. Paper presented at the meeting of the Beritashvili Institute of Physiology, Georgian Academy of Sciences, Tbilisi, Georgia, USSR.

### **National**

- Kearns, W. D., Fozard, J. L., Scott, S., Schonfeld, L., & Marshall, K. (2014, January). *Measuring spatial disorientation in veterans with TBI using GPS and fractal mathematics*. Poster presented at the meeting of the Veterans Administration Research Day, Tampa, FL.
- Moore, D. Helen, Houston, A.M., Kearns, W. D. & Fozard, J. (2013, November). *Visual exit barriers: Deter exit-seeking in home-dwelling elderly with dementia?* Poster presented at the meeting of the Gerontological Society of America, New Orleans, LA
- Houston, A.M, Moore, D.H. & Kearns, W.D. (2013, July) *Visual barriers to aid in the prevention of exit-seeking in older adults with dementia*. Poster presented at the meeting of the American Psychological Association, Honolulu, HI.
- Kearns, W, Fozard, J.L, Schonfeld, L, Scott, S, & Marshall, K. (2013, April) *Measuring spatial disorientation in veterans with TBI using GPS and fractal mathematics*. Poster presented at the meeting of the Veterans Administration Research Day, Tampa, FL.
- Kearns, W. D. (2012, December). *Tampa Smart Home: Rehabilitation for the 21st century*. Paper presented at the meeting of the Special Operations Medical Association (SOMA), Tampa, FL [Invited speaker].
- Kearns, W. D. (2012, August). *Increased path tortuosity related to falls in assisted living facility residents*. Paper presented at the meeting of the Transforming Fall Management Practices Conference (US Department of Veterans Affairs), Clearwater Beach, FL [Invited speaker].
- Kearns, W. (2011, June). *Ultra-wideband RTLS tracking in ALF residents links natural movement variability to dementia*. Paper presented at the meeting of the US Department of Veterans Affairs national conference "Tracking our Future: VHA and RTLS", Atlanta, GA.
- Kearns, W. (2011, February). *Innovative uses of UWR RFID in Healthcare – How knowing who where and when can improve health services*. Paper presented at the meeting of the HIMSS Conference - Orlando Orange County Convention Center.
- Craighead, J, Kearns, W, Fozard, J, Hart-Hughes, S. & Jasiewicz, J. (2010, June). *Gait up & go: A therapist-friendly iPod based tool for mobility assessment*. Paper presented at the meeting of the Agency for Healthcare Research and Quality Grantee and Contractors, Washington, DC.
- Kearns, W. (2010, May). *Evaluation and integration of an automatic fall prediction system*. Plenary speech presented at the meeting of the Transforming Fall Management Practices Conference (US Department of Veterans Affairs), Clearwater Beach, Florida.
- Kearns, W.D, Fozard, J.L, Nams V.O, Craighead, & J, Jasiewicz, J. (2010, February). *High locomotor variability in free movements of assisted living facility residents predicts*

- cognitive impairment*. Paper presented at the meeting of the GAIT2010 in Washington, DC.
- Kearns, W. D. (2009, October). *Health monitoring of residents in an assisted living facility (ALF) using ultra wideband radio RTLS*. Paper presented at the meeting of Internet2, San Antonio, TX.
- Beattie, E., McCrow, J. M., Kearns, W. D., & Applegarth, S. P. (2009, November). *Attitudes and expectations of technologies to manage high risk wandering and elopement in persons with dementia: An Australian perspective*. Paper presented at the meeting of the Gerontological Society of America (GSA), Atlanta, GA.
- Kearns, W. D. (2009, April). *The Brit Programme* [Teaching and learning special interest group]. Paper presented at the meeting of Internet2, Alexandria, VA.
- Kearns, W. D., & Fozard, J. (2008, September). *Locomotor variability assessment of the elderly using ultra wideband radio*. Paper presented at the meeting of the American Telemedicine Association (ATA), Tampa, FL.
- Kearns, W. D. (2008, October). *Using ultra wideband radio in the study of dementia wandering: Implications for gerontechnology*. Paper presented at the meeting of the IEEE/RAS-EMBS on Biomedical Robotics and Biomechatronics (BioRob), Scottsdale, AZ.
- Kearns, W. D. (2008, October). *Internet2: An overview*. Paper presented at the meeting of the Department of Veterans Affairs VISN8 VA Patient Safety Center of Inquiry, Tampa, FL.
- Kearns, W. D. (2008, April). *Locomotor variability in ALF residents with AD/MCI*. Paper presented at the meeting of Internet2, Alexandria, VA.
- Kearns, W. D. (2007, October). Gerontechnology implications and opportunities for networks. In W. D. Kearns (Chair) "Implications of Rapidly Evolving Gerontechnologies for High Speed Networks". Paper presented at the meeting of Internet2, San Diego, CA.
- Kearns, W. D. (2007, October). (Chair) "Implications of rapidly evolving gerontechnologies for high speed networks". Panel conducted at the meeting of Internet2, San Diego, CA.
- Barbeau, S., Winters, P., Georggi, N., Labrador, M., Perez, R., Kearns, W. D. et al. (2007, October). *Travel assistance device: electronic mobility and transportation guidance assistance for persons with cognitive disabilities*. Poster presented at the meeting of the Workshop on Assisted Cognition, Rochester, NY.
- Moore, D. K. W. D., & Larson, V. (2007). *Interventions to manage wandering in dementia*. Paper presented at the meeting of the National Center for Patient Safety, Washington, DC.
- Kearns, W. D. (2005, March). *Technologies to control wandering in persons with Alzheimer's dementia*. Paper presented at the meeting of the SSR-RC Safety Security Rescue Research Center (National Science Foundation), St. Petersburg, FL.
- Kearns, W. D. (2004, June). *DRIFTER: Autonomous buoyancy controlled underwater platform*. Paper presented at the meeting of the Tufts University Department of Mechanical Engineering, National Science Foundation, National Instruments Corporation, LEGO International Inc., Austin, TX.
- Kearns, W. D., Murphy, R., & Elahi, H. (2004, July). *Videofish: TV worth catching*. In J. Weinberg (Chair) "Curricular themes." Paper presented at the meeting of the Association for the Advancement of Artificial Intelligence (AAAI), Palo Alto, CA.
- Kearns, W. (2004, January). *High speed computer networks and their implications for education: The internet2 project at USF*. Paper presented at the meeting of the Florida Educational Technology Corporation, Orlando, FL.

- Kearns, W. D., & Koberstein, M. (2004, April). *College of Visual and Performing Arts: Multicast technologies at USF*. Paper presented at the meeting of the University Consortium for Advanced Internet Development (UCAID), Alexandria, VA.
- Kearns, W. D. (2003, June). *Streaming video databases in support of mental health education and training*. Paper presented at the meeting of the International Institute of Informatics and Systemics, Orlando, FL.
- Kearns, W. D. (2002). *A demonstration of USF's Internet2 connection, and how it may be used to maximal effect*. Paper presented at the meeting of the Southeastern Association of Marine Laboratories & Mote Marine Institute National Shark Research Center, Sarasota, FL.
- Kearns, W. D. (2001, October). *Implications of the Health Insurance Portability and Accountability Act*. Paper presented at the meeting of the Association of Mental Health Librarians, Tampa, FL.
- Kearns, W. D. (2001). *USF's Internet2 Project: Advancing the Public Broadcasting System*. Paper presented at the meeting of the Higher Education Telecommunications Consortium, Tampa, FL.
- Kearns, W. D. (2001). *How to use USF's Internet2 connection to maximal effect*. Paper presented at the meeting of the Southeastern Association of Marine Laboratories & Mote Marine Institute National Shark Research Center, Sarasota, FL.
- Kearns, W. D. (2001). *Higher Education Television Consortium (HETC)/Internet2*. Paper presented at the meeting of the Higher Education Telecommunications Consortium, Madison, WI.
- Kearns, W. D. (2000). *Streaming video databases in support of mental health education and training*. Paper presented at the meeting of Internet2, Washington, DC.
- Peters, R. H., Kearns, W. D. S. J., Murrin, M., & Dolente, A. (1991). *Relapse prevention and skill acquisition among offenders referred for in-jail substance abuse treatment*. Paper presented at the meeting of the American Psychological Association (APA), San Francisco, CA.
- Peters, R. H., & Kearns, W. D. (1991). *Drug treatment needs of jail inmates*. Paper presented at the meeting of the American Psychological Association (APA), San Francisco, CA.
- Kearns, W. D. (1989). *Social avoidance behavior in baboons: Systemic and regional hemodynamics*. Paper presented at the meeting of the National Institutes on Aging, Baltimore, MD.

### **State**

- Kearns, W. D. (2007, June). Provider effects on racial/ethnic disparity in the Florida Medicaid population. Poster presented at the meeting of the Florida Medicaid Research Conference, Tallahassee, FL.
- Kearns, W. D. (2007, June). Broadband networking and the new Gerontechnology or “What will I do when those fibers grow grey?”. Poster presented at the meeting of the Florida Medicaid Research Conference, Tallahassee, FL.

### **Local**

- Kearns, W. D. (2001, March). *Internet2: High bandwidth networking at USF*. Paper presented at the meeting of the USF Symposium on 21st Century Teaching Technologies, Tampa, FL.
- Kearns, W. D., & Hanson, A. (2000, March). *From catalogue to video: The use of electronic media as curriculum and research support*. Workshop conducted at the meeting of the USF Symposium on 21st Century Teaching Technologies, Tampa, FL.



- Kearns, W. D. (2000, March). *Streaming video databases in support of mental health education and training*. Paper presented at the meeting of USF Symposium on 21st Century Teaching Technologies, Tampa, FL.
- Kearns, W. D. (1999, March). *The USF Internet 2 Project: High speed networking for the future*. Workshop conducted at the meeting of the USF Symposium on 21st Century Teaching Technologies, Tampa, FL.
- Kearns, W. D., & Hanson, A. (1997, March). *A virtual walk through the de la Parte Institute Library*. Workshop conducted at the meeting of the USF Symposium on 21st Century Teaching Technologies, Tampa, FL.
- Kearns, W. D., & Hanson, A. (1996, March). *Building a low cost library catalog searchable via the world wide web*. Workshop conducted at the meeting of the USF Symposium on 1st Century Teaching Technologies, Tampa, FL.

### ***Other Invited Presentations***

- Kearns, W. D. (2014, May). *Path tortuosity related to cognitive impairment and fall risk in dementia and traumatic brain injury*. Paper presented to University of Missouri-Columbia College of Engineering, Columbia, MO.
- Kearns, W. D. (2014, March). *Tortuosity in walking path predicts cognitive impairment and fall risks*. Paper presented to Draper Laboratory Information and Decisions Systems Technical Talk series, Cambridge, MA.
- Kearns, W. D. (2014, January). *Walking path tortuosity predicts cognitive impairment and fall risks*. Paper presented to Florida Institute for Human-Machine Cognition, Ocala, FL.
- Kearns, W. D. (2014, January). *The report on the use of "smart rehabilitative technologies*. Paper presented to the U.S. Department of Defense Task Force on the Care, Management, and transition of recovering wounded, ill, and injured members of the Armed Forces, Tampa, FL.
- Kearns, W. D. (2012, August). *Something in the way she moves: Falls and fractal dimension*. Paper presented at the meeting of the Provost's Symposium on Engineering and Information Sciences and Technology, Berks, PA [Invited speaker, Pennsylvania State University Berks Campus].
- Kearns, W. (2010, October). *Location aware technologies: Implications for healthcare research and practice*. Presentation on October 30, 2010, USF Polytechnic, Journey through Aging Research Seminar.
- Kearns, W. D. (2004). High speed computer networks and their implications for education: The internet2 project at USF. Paper presented at the meeting of the University of South Florida, Management Information Systems Society Tampa, FL.
- Kearns, W. D. (2004). Videofish: TV worth catching. Paper presented at the meeting of the Tufts University, Department of Mechanical Engineering, Boston, MA.

## **PROFESSIONAL ORGANIZATIONS**

### *International*

International Society for Gerontechnology	2004 to present
President, North American Chapter	2014-2018

### *National*

U. S. Department of Veterans Affairs	2013-2015
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National RTLS Implementation Team	
RFID in Healthcare Consortium	2013-2014
HIMSS 2014 Executive Committee	2013-2014
University Corporation for Advanced Internet Development	2005-2011
Human Factors & Ergonomics Society	2005-2007
Higher Education Telecommunications Consortium	1999-2003
Internet2, USF Representative	1996-2006

## HONORS AND AWARDS

Department of Veterans Affairs national “Brain Trust” competition 3 <sup>rd</sup> place - VA Smart Home Caregivers: The Forgotten Victims of War	2016
International Soc. for Gerontechnology 9 <sup>th</sup> World Conf. (Taiwan) Best Leading Edge Technologies Poster Paper Award	2014
University of South Florida Department of Research Excellence in Innovation Award	2011
Nan Kai University of Technology (Taiwan) International Conference and Master Class on Gerontechnology Distinguished Keynote Speaker Award	2008
University of Rochester (NY) and Microsoft, Inc. Workshop on Intelligent Systems for Assisted Cognition	2007
USF Career Service Scholarship Award	1986

## JOURNAL EDITORSHIPS AND REVIEWER ACTIVITIES

### *Gerontechnology*

Associate editor	2006 to present
Manuscript reviewer	2005 to present

*IEEE Intelligent Systems* 2007 to present

*IEEE Transactions Information Technology in BioMedicine* 2013 to present

*Journal of Behavioral Health Services Research* 2010

*Journal of Applied Gerontology* 2009 to present

### *Grants*

National Institutes of Health Risk Prevention and Health (R12)	2016
National Institutes of Health Grants for Early Medical/Surgical Specialists’ Transition to Aging Research (GEMSSTAR)	2015
Israeli Ministry of Science, Technology and Space	2015
Canadian Institutes of Health Stacie Prize Applications Banting Post-doctoral Fellowship Award	2014
Canada Foundation for Innovation Competition Infrastructure Grant (University of Toronto)	2014
Agency for Healthcare Research & Quality	2010
National Science Foundation	2009

USF Dept. of Research	2006
<i>Conference Reviewer and Organizer Activities</i>	
International Society for Gerontechnology/International Association of Gerontology and Geriatrics (ISG/IAGG)	
Executive Committee, Organizing Committee, Taiwan	2012-2014
Executive Committee, Organizing Committee, Eindhoven	2011-2012
Track Director, ISG/IAGG, Eindhoven	2011-2012
International Association for Development of the Information Society (IADIS)	2009
Scientific Papers Reviewer for eHealth	
Multiconference on Systemics, Cybernetics and Informatics	
Chair, Communications Systems and Networks	2003
<b>TEACHING</b>	
University of South Florida	2016
Department of Child and Family Studies	
Guest lecturer: Complex Community Environments	
Simon Frasier University, British Columbia, Canada	2013
Gerontology Department	
<i>Guest lecturer: Technology and Aging</i>	
University of South Florida	
Louis de la Parte Florida Mental Health Institute	
<i>Instructor</i>	
Communication and Design Process Seminar, SPC6934	2009
Environmental Interventions Seminar, GEY6934.904S07	2008
Videofish Senior Design Project, ART 4806/EGN 4930	2003-2004
Department of Psychology	1987-1988
Rollins College, Winter Park, Florida	
Department of Psychology	1998
<i>Instructor, Introduction to General Psychology</i>	
University of the Pacific Stockton, CA	1978
<i>Instructor, Psychophysiology Laboratory</i>	
<b>SERVICE TO THE UNIVERSITY</b>	
CBCS Instructor Promotion Committee	2013 to present
Advanced Visualization Executive Committee	2012 to present
USF Cyber-infrastructure Committee	2008 to present
Florida Health Information Systems Council	2002-2003
Board of Trustees Representative	
Instructional Technology Council, Chairman	2000-2001
Strategic Planning Task Force Technology Management	
Subgroup member	1998-1999
Internet2 Project, USF Representative	1996-2006
Workgroup on Computers & Technology	1995-2003
Academic Computing Committee	1994-2003
Chair 1994-1998	
Southern Accreditation of Colleges and Schools	1992-1993

Member, Self-Study Section for Computing Resources at USF

**SERVICE TO THE COMMUNITY**

Tims Presbyterian Church (Tampa, FL)

Facilities Workgroup

2002-2014

Habitat for Humanity Workgroup

2010-2012

Deacon

2006-2009