EgoSense – Minimally-Invasive Monitoring System of Social and Physical Activities
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**Motivation**

- Manual data collection techniques yield incomplete information, are subject to biases, and cannot scale to monitor many patients over long periods of time
- Develop objective and continuous measurements of physical and social activity to enable longitudinal studies in large patient populations
- The social and physical activities of patients are indicative of their well-being, quality of life, and mood

**Approach**

- EgoSense adopts sensing technology to measure patient’s activities in situ with *minimal effort* and *high temporal resolution*
- EgoSense will intelligently select a subset of sensors to monitor patient activity accurately while turning off the remaining sensors to conserve energy

**Impact**

- EgoSense will monitor patient behavior activities objectively and continuously
- EgoSense can be deployed in assisted-living facilities or communities in real time and in the real world
- EgoSense permits the tracking of both implementation and effects of clinical interventions on important health-related outcomes in the real-world

**Collaborators**

- Michelle Voss (Psychology)
- Nazan Aksan, Steven W. Anderson, Matthew Rizzo (Neurology)
- Melissa Duff (Communication Sciences and Disorders)
- Alberto Segre (Computer Science)

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