Enhancing Social Interaction in Elderly Communities via Location-Aware Computing

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Elderly Social Interaction

- Importance to physical, mental, and emotional health

- Shrinking social networks

  o Relocation

  o Death of friends

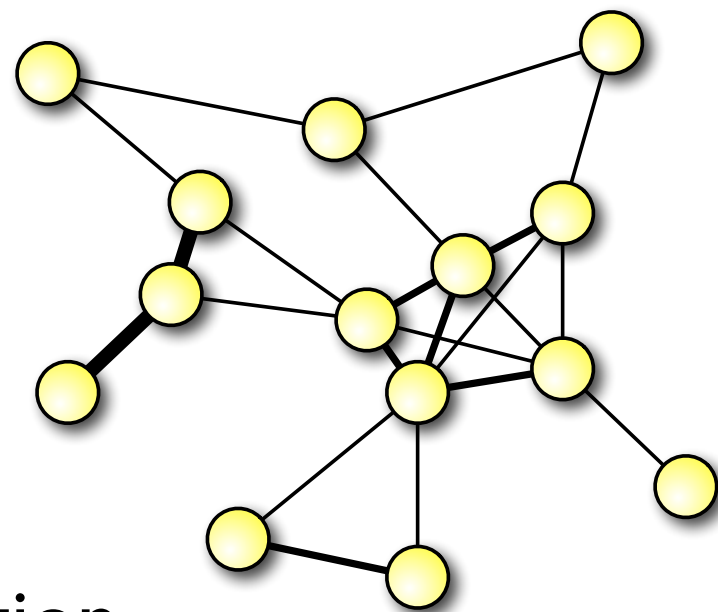 o Decreased social ability

Understanding Social Networks

- Build models of elders social networks

- Identify *low social participators*

- Monitor social behavior identifying key relationships

- Build *prompting* system to encourage social interaction

Social Network Models

- Past modeling typically required extensive direction observation and surveys or questionnaires

- Recent research utilizes sensors deployed in the environment

- We focus on location-based sensors

Location-based Models

- Ekahau WiFi positioning

- Record instances of co-location

- More co-location results in strong ties in network model

Intervention Tool

- Prompt users to participate in activities

- Most effective when aligned with users social relationships or interests

- Must be very simple, but also personalized

- Machine learning techniques to infer types of prompts effective for a *given user*