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## Lifestyle Improvement Game to Delay the Onset of Alzheimer's and Support Treatment

2009 Everyday Technologies for Alzheimer Care

Previous research has shown that staying socially active plays a key role in delaying the onset and progression of Alzheimer's disease. Social networking web sites may offer a new way to keep the brain active and increase socialization in older adults, including those with Alzheimer's.

Debra Lieberman, Ph.D., and colleagues will leverage the popular Facebook social network and online resources to motivate people to improve their lifestyles. The Brain Builder Network will have four software systems: (1) Facebook Social Networking System, (2) Avatar and User Feedback System, (3) Data Mining System, and (4) Recommender System. The Facebook Social Networking System will allow users access to all the features and friends of Facebook, while securely connecting to our server. The Avatar and User Feedback System will create an avatar—a user's virtual representation—that provides feedback, personal progress toward adherence goals and the progress of friends. It will gather and analyze user data from health games, such as CogniFit, and from the underlying Data Mining and Recommender systems. The Data Mining System will aggregate data about the online activities and self-reported health behaviors of users and their friends, and will display results to users.

The Recommender System will identify resources that similar users are accessing the most, and identify resources that most closely address the individual's adherence and health interests. For each user, the system will display links to recommended resources. The system will cluster users based on online behaviors, Facebook friends and other inputs.