SCAFFOLDER: AN INTERFACE FOR AGENT-BASED DISCOURSE

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In this paper we introduce a prototype, *scaffolder*, as a response to 21st century design challenges in the social sciences and humanities. Technically speaking, these challenges call for the creation of a modeling infrastructure for participatory social research that fosters description and interpretation, and is sensitive to local values. An important part of this project is a model-based discourse that is meaningful to and involves the people who inhabit and produce the target of modeling. *How do we design objects that support reflexive organization and self-evaluation in communities?* To develop and ground *scaffolder*, we propose to use it in a study of the use and design of assistive technologies in ecologies of care provided by the Visiting Nurses Association (VNA).

The steadily increasing elderly population in the US is acknowledged as an important challenge for society as well as individuals and their families. Assistive technologies—medicine dispensers, communication devices, and robots—have been one response to this challenge. Their use is expected to ease the strain on caregivers, improve the quality of life for seniors by allowing them to remain independent in the comfort of their homes and communities, and decrease the financial burden on families and society. The design of these technologies, however, relies heavily on the visions of technical experts, which do not always match the needs and desires of care givers and receivers. We propose that *scaffolder* can be used to bridge the perspectives of the designers of these technologies and the people who use them.

We want to learn how actors in care-giving contexts (homes, hospitals, nursing homes, etc.) perceive and use assistive technologies in caring for the elderly. Interviews with nurses, therapists, volunteer caregivers, the elderly and their families will inform us of the experiences, expectations, and needs of those who will be working with assistive technologies on an intimate and daily basis. We are particularly focusing on the effects of assistive technologies on the social life of the elderly and their families and caregivers. We use *scaffolder* to organize information and create taxonomies, which we call *scenes*. These scenes are then used for discussion among the researchers and among research participants to create further taxonomies and gather further information. From these we will create models and interfaces, such as games, to continue to elaborate on the language of the community.

Our goal in collaborating with caregivers and care receivers in building a model and modeling interface for the organization and its social processes is to develop design recommendations for technologies that will be adaptive to users needs and their daily experiences. At a later time this infrastructure will help to develop the capability of care-giving organizations like the Visiting Nurses Association to appropriate robotic technologies to enhance their services.