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Week 4

Review of "Robotic Pets in the Lives of Preschool Children" Review of "Technology and Human Vulnerability"

These 2 papers brought forth the same issue: since our technology advances to the extent that machines can interact with human, now is the time to reconsider the psychological issues of human machine interaction. In the AIBO experiment case, preschoolers played with AIBO and stuffed dog, and questionnaires concerning attitudes (biological/mental/emotion) and relations (social/moral/animacy) were conducted and answers collected. Hypothesis test then carried out and it turned out interaction helps building moral standing. In the conversation with Sherry Turkle, Sherry pointed out that interaction changes people's moral attitudes, and that this is what we have not been prepared.

Reciprocity have many dimensions, each of which has different weights. The more dimensions we add to a machine, the more we feel this machine intimate. In the case of AIBO experiments, AIBO has more dimensions concerning kinematics, certainly it increases intimacy. Questionnaires are better than physiological data in this situation.

This is not the topic of both papers but important for me: How can we automatically increase interactions by machine learning algorithms ? What are the atomic components we need to implement into the system and what are the dimensions we want to system adjust ?

Review of "Assistive Robotics .."

In this paper, surveys of subjects A~G are made and the requirements for products for elders are analyzed. This requirement analysis might be useful for designing new products. According to the survey, the elders emphasis on independence and dignity and we should emphasize on ease-of-use, reliability, adaptive, nonstigmatizing, and reflecting the elders' social value.