

Workshop 10 – Computing and Vulnerable Groups - Activity

Scenario One: Monitoring Dementia Patients

Most people, as they age, become increasingly vulnerable to accident and injury. Lack of mobility or loss of memory can cause a person to leave a hot stove unattended, for example. Dementia, in particular, can make it impossible for elderly people to care for themselves safely. For this reason, many elderly people choose to move into group retirement homes where the staff provide assistance and regularly check on residents to make sure they are safe and healthy.

Some people, however, prefer to stay in their own homes as long as possible. It is now possible to buy systems that allow round-the-clock monitoring of people in their own homes. Several systems allow a remote user (usually an adult daughter or son) to keep tabs on an elderly parent. Some provide video feeds from the house, allowing the user to literally look in and make sure everything is OK. Others will send an automatic text message if certain conditions are met. For example, if the elderly person left the house at 3am, or did not get out of bed by 9am, a caregiver would be notified about this unusual behaviour.

Questions:

1. Do a threat analysis of the monitoring systems described here, listing ways that you think the system is likely to be abused.
2. Some parents of college students purchase a house for their child to live in while attending college. Would it be morally acceptable for a parent to require a monitoring system be installed in the house? What are the morally significant ways that this use of home monitoring technology differs from the use with elderly patients?
3. Are the elderly more vulnerable, or less vulnerable, than college students? Explain your reasoning.

Scenario Two: Radio Buttons for Demographic Questions

In the lecture, we saw how radio buttons for demographic questions can force users into a moral dilemma. In many such forms, poor design assumptions can make it impossible to answer honestly.

Questions:

4. According to the *ACM/IEEE Software Engineering Code of Ethics and Professional Practice*, should software engineers use the check box method for representing race or the radio button method? Explain your answer, making reference to appropriate principles or rules from the code.

Submit: Please submit your answers to Moodle Forum by 5pm today. Submit as individuals.