Ethics in HRI

WEEK 9 OF 16-867 HUMAN-ROBOT INTERACTION

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Topics

Privacy

Emotional Attachment

Implications for Human-Human Interaction
Privacy
Privacy
Therapeutic/Assistive Robots

Vulnerable populations

Physical and psychological needs must be respected:

◦ Involvement of robots in intimate activities such as bathing and sanitation
◦ Direct physical contact with patients (lifting)
◦ High probability of emotional bonding, whether intended or not

Consent
Privacy
Privacy
How to Obtain Consent?

Can people opt-out?

Deception in Wizard-of-Oz:
○ Embarrassment of being deceived
○ What will be disclosed to people interacting with the robot, and at what point during the interaction?
○ Can people opt-out?
○ What happens when the link goes down?
Unintended Information Disclosure

Activity:
In your project groups, discuss what potentially sensitive information will be or could be recorded or inferred by your robot

Come up with 3 strategies to mitigate privacy risks
Emotional Attachment
Self-Deception

Non-impaired people may pretend that the robo-pet is “real”

People with cognitive impairments:
° self-deception or delusion?

***Use is very important – causing isolation or encouraging communication
To Kill a Mockingbird Robot 
– Bartneck 2007

Does a robot’s exhibition of “intelligent life-like behavior” lead to a perception of animacy?

More lifelike, better treatment, harder to kill
Humans  >>  dogs/cats  >>  ants
To Kill a Mockingbird Robot – Bartneck 2007

Smart vs. Stupid Robot
Female vs. Male Participants
To Kill a Mockingbird Robot
– Bartneck 2007

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Participant Comments

“I didn’t like to kill the poor boy”

“The robot is innocent”

“I don’t know I need to destroy it after the test. I like it, although its actions are not perfect”

“This is inhumane!“

Spooky similarity to Milgram’s Obedience to Authority experiments
Stanley Milgram’s Obedience
Implications for Human-Human Interaction

Caregiving (Sharkey & Sharkey):
- Mismatched expectations
- Lack of attachment between human caregiver and caregivers
"This is a perfect robot for whoever does not have a lot of time to stay with child. Hello Kitty Robo can help you to stay with your child to keep them from being lonely."
Mismatched Expectations

“Since we have invited Hello Kitty (Kiki—as my son calls her), life has been so much easier for everyone. My daughter is no longer the built in babysitter for my son. Hello Kitty does all the work. I always set Kiki to parent mode, and she does a great job. My two year old is already learning words in Japanese, German, and French.”
Mismatched Expectations

“Robo Kitty is like another parent at our house. She talks so kindly to my little boy. He's even starting to speak with her accent! It's so cute. Robo Kitty puts Max to sleep, watches TV with him, watches him in the bath, listens to him read. It's amazing, like a best friend, or as Max says "Kitty Mommy!"

Now when I'm working from home I don't have to worry about Max asking a bunch of questions or wanting to play or having to read to him. He hardly even talks to me at all! He no longer asks to go to the park or the zoo - being a parent has NEVER been so easy! Thank you Robo Kitty!”
Mismatched Expectations

“As a single executive mom, I spend most of my home time on the computer and phone and so don't have a lot of chance to interact with my 18-month old. The HK robot does a great job of talking to her and keeping her occupied for hours on end. Last night I came into the playroom around 1AM to find her, still dressed (in her Hello Kitty regalia of course), curled sound asleep around the big plastic Kitty Robo. How cute! (And, how nice not to hear those heartbreaking lonely cries while I'm trying to get some work done.)"
Mismatched Expectations

- Risk of physical harm
- Should manufacturers share in responsibility?
Lack of Attachment

- Mundane care tasks – diapers, bathing, feeding, etc.
  - Childcare v. Eldercare

- Psychological attachment
  - Maternal sensitivity, mind-mindedness, correctly identifying needs and responding appropriately
  - Robot nanny v. poor human nanny
  - Part-time robot v. watching TV
  - Monkey studies
Next Week

Project Status Presentations
Send an email with which day your group would like to present

Attend both days – in-class activities

Website due Wed Mar 29 at 8pm.