

INF632 Homework 1

Compare and Contrast Commodity Devices

In this week's reading, you learned about haptics, both the physiological aspects of how we sense and a bit about virtual rendering touch sensations. In this discussion exercise, I want you to use what your readings and your own experiences to discussing real world and computer environment analog experiences.

I'll start you off with an example.

1. Learning and Education

- Real World: Traditional classrooms involve physical interaction with books, writing materials, and hands-on activities.
- Computer Environment: Online courses often rely on video lectures, e-books, and interactive quizzes.
- Potential Haptic Changes (Enhancements): Haptic feedback could provide tactile hints for answers, simulate page turns in digital textbooks, or enhance engagement through virtual lab activities. Your Physics labs were probably hands on and allowed you to see and feel Newtonian mechanics. But you probably haven't had a lab on celestial dynamics, or on molecular bonding, that you were able to explore hands on.

2. Art and Crafting

- Real World: Creating art involves tactile sensations from handling materials like paint, clay, or fabric.
- Computer Environment: Digital art software allows users to create art using styluses on tablets or touchscreens.
- Potential Haptic Changes:

3. Email and Messaging

- Real World: Writing letters involves physically handling paper and the writing instrument, with tactile feedback from pen on paper.
- Computer Environment: Composing emails and messages through keyboards and touchscreens.
- Potential Haptic Changes:

4. Exercise, Sports, Physical Therapy

- Real World: Participating in sports requires physical activity, coordination, and teamwork. Physical therapy is similar and adds one-on-one guidance such as taps where one needs to be focusing or nudges to move differently.
- Computer Environment: Fitness apps and virtual sports games provide guided workouts through screens.
- Potential Haptic Changes:

5. What else?

- Real World:
- Computer Environment:
- Potential Haptic Changes:

Further Reflection:

What elements of your daily digital interactions feel less engaging due to the lack of tactile feedback? How might incorporating haptic feedback change the way you perform these activities?

What specific aspects of the real-world experiences do you think could benefit most from haptic

technology?