Strathmore
U N I V E R S I T Y

SCHOOL OF COMPUTING AND ENGINEERING SCIENCES

ASSIGNMENT 1

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ICS 4205: HUMAN COMPUTER INTERACTION

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Lecturer: Macharia, Paul
Email: pmacharia@strathmore.edu
Consultation: 8.30am – 1:00pm   **Module Leader:** As per group
Semester dates: April – July 2025   **Lecture Time:** As per timetable

HCI Class Task: The "Everyday Interface" Analysis

Objective: To introduce students to fundamental HCI concepts by analyzing familiar, everyday objects or simple digital interfaces. This task encourages observation, critical thinking about usability, and understanding that "interaction design" applies to more than just computers.

Core Concepts Introduced (Informally):
- **Interface:** The point of interaction or communication between components (including between a human and a tool/system).
- **Usability:** How easy and effective is something to use?
- **User Experience (UX):** How does using something *feel*? Is it satisfying, frustrating, efficient?
- **Affordances:** What does the object *suggest* it can do? (e.g., a button suggests pushing, a handle suggests pulling/grasping).
- **Signifiers:** Clues or signals about *how* to use the object (e.g., labels, icons, the shape of a grip).
- **Feedback:** How does the object tell you that you've done something? (e.g., a click sound, a light turning on, text appearing on a screen).

Time Allotment: Approximately 60-90 minutes (adaptable)
- Introduction & Setup: 5-10 minutes
- Individual Analysis/Group Work: 40-45 minutes
- Class Discussion & Debrief: 40-45 minutes

Materials:
- Students can use objects they have with them (e.g., water bottle, pen, smartphone lock screen, notebook, backpack zipper, keys).

- Paper and pen/pencil for notes, or digital equivalent.
- Whiteboard or projector for summarizing discussion points.

Activity Steps:

1. **Introduction (5-10 mins)**
   - Instructor briefly introduces the idea that HCI is about how people interact with *any* system or tool, not just complex software.
   - Explain the goal: To look closely at everyday things and think about *how* we use them and *how well* they work for us.
   - Define "interface" broadly as the way we connect with and use something.

2. **Selection & Analysis (40-45 mins)**
   - **Pairs:** Students to select one everyday object/simple interface they have access to. (they analyze one object together).
   - **Task Focus:** Perform a primary function with the object (e.g., open the water bottle, unlock the phone, write with the pen, open a door).
   - **Guiding Questions (Provide these to students):** As they perform the task and examine the object, they should consider and jot down notes on:
     - **What is the main goal you are trying to achieve with this object?** (e.g., "Get water," "Access my phone," "Make a mark.")
     - **How do you know what to do?** What parts of the object tell you how to use it? (Think about shape, labels, texture, position). *[Introduces affordances & signifiers]*
     - **Describe the steps you take to use it.** Are they simple or complicated? Obvious or confusing? *[Touches on interaction flow & ease of use]*
     - **How easy or difficult is it to use correctly?** Could you make a mistake easily? *[Introduces usability & error prevention]*
     - **How does the object let you know that you've succeeded (or failed)?** What feedback does it give? (e.g., a click, a visual change, a sound). *[Introduces feedback]*
     - **Overall, how does it *feel* to use this object?** (e.g., Satisfying? Annoying? Quick? Slow? Comfortable? Awkward?). *[Introduces user experience]*
     - **What is one thing you really like about its design?**
     - **What is one thing that could be improved or sometimes frustrates you?**

3. **Group/Class Discussion & Debrief (40-45 mins)**
   - **Share Findings:** In pairs to share their chosen object and their key observations, particularly focusing on:
     - How they knew what to do (affordances/signifiers).
     - Points of ease or difficulty (usability).
     - Examples of feedback.
     - Feelings associated with use (UX).
     - Suggestions for improvement.