CS-C3120 Human-Computer Interaction
Exam 10 December 2018

Allowed equipment: Pen and paper

1. **Term explanations (8 p).** For each term below, explain what it means (0.5 p) and how it relates to HCI and UCD (0.5 p).
    a. Design for error
    b. Grudin paradox
    c. Computational design
    d. Triangulation
    e. Crossover effect
    f. Abductive inference

2. **Interaction design challenge (6 p).** Machine repair work in big machinery (e.g., elevators, ship engines etc.) may sometimes require that the repair person uses both hands. This may cause challenges in information retrieval: it makes browsing of machinery documentation and manuals difficult because the user's hands are occupied. Augmented reality (AR) glasses could then provide a useful hands-free solution for browsing information in such a setting.
    a. analyze the design requirements of AR glasses in such a setting (2 p)
    b. based on your analysis, describe **two** alternative interaction possibilities for accessing machine documentation during machine repair (1+1 p)
    c. describe a research method (data collection method + analysis method) that would tell which one of your alternative designs would provide a better starting point for the AR glass based system's final design (1+1 p)

3. **Presentation of a method or technique (6 points)**. Analyse controlled usability evaluation method from the following points of view.
    a. Describe what this method is and what its purpose is in HCI (2 p)
    b. What are its limitations (2 p)
    c. What are its strengths (2 p)