Supervision 1 - Interaction Design 2016/2017

1. Soft Systems Methodology

In a drive for greater efficiency in education, the government of a small European country is considering implementing a system that will require schools to administer standard assessment tests to all pupils at ages 7, 11, 14 and 16. The results of these tests are to be published nationally so that comparisons between schools can be made.

(a) Identify the stakeholders (the interested parties) in this system.

(b) How would you go about producing root definitions for the system? How do you think the root definitions for the government, teachers and parents might be different?

(c) (extra) Why does SSM stress understanding the situation and not understanding the problem? Why are designers encouraged to develop models independently from the "real world"?

2. Data Gathering

(a) **Critique** the following questionnaire:

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_____
|          Are you male or female?                   |
|               ◯ Male                               |
|               ◯ Female                             |
|          What is your age?     _____            |
|          What is your current marital status?      |
|               ◯ Never married, single             |
|               ◯ Divorced, Widowed, Separated      |
|               ◯ Married                            |
|          How would you rate the service we provide?|
|               ◯ Extremely good                    |
|               ◯ Very good                          |
|               ◯ Good                               |
|               ◯ Dissatisfied                       |
|_____|
```

(b) For each of the following data gathering techniques, give two examples: first, of a project where they would be appropriate to use and would generate meaningful and useful data (briefly describe how the data gathering would take place and what kind of data you'll be gathering); second, a project where it would be very difficult to use (describe why that is the case).
- Questionnaires
- Interviews
- Ethnographic observation
- Lab based observation
- Focus groups

3. Design and prototyping

(a) Explain the difference between conceptual design and physical design.

(b) Consider a robot vacuum cleaner. Propose and describe a conceptual model, and then propose and describe a physical model.

(c) Briefly discuss what is the role of prototyping in user centred design.

(d) What are the advantages and disadvantages of high fidelity prototyping?

(e) Briefly describe 3 prototyping techniques and discuss the differences between them.