CIS 443/543 User Interfaces

Exercise #1  HCD Requirements

Please turn in your work and keep a copy for discussion in class.

Due Monday, October 9 10am

Requirements analysis and specification are an early phase of Human-Centered Design. In this exercise you will practice these activities with a small real-life problem.

System to be designed: A kiosk at the down-town Eugene bus terminal that provides riders with the ability to buy their ticket(s) before boarding the bus.

Please capture your requirements in a document that has the following topics:

PART I: INTRODUCTION
A. Introduction
   What kind of interactive program is it? Adventure game, Web-based information system, graphics editor?
B. Problem statement: What is the program’s purpose in general?
C. Description of potential users
   Who are the users? What is their experience with other similar devices? What are their skills? How often will they use this system, and thus will they become expert users? Is there anything special about them? BE VERY SPECIFIC. This is where universal usability begins!!!!!
D. Brief description of user studies you conducted:
   What kind of study did you do? (Task Analysis, Interviews, Observation, questionnaire, etc.) Include example forms.

PART II. REQUIREMENTS SPECIFICATION
A. Description of program’s overall functionality
   What are the typical users and tasks or activities? Describe briefly as a few scenarios.
B. Context
   1. Description of target hardware/software.
   2. Integration: Other application software
      How does this application integrate into other software available on the computer? Have you accommodated that in the design.
   3. Products
      What products will it produce and at what level of quality?
   4. Outstanding constraints on design (standards, laws, etc.)
C. Functional requirements (What the system should do.)
   1. Core Functions
      What core functions are absolutely necessary for your users? What functions need to be supported by on-line help? (List & describe. Be very
specific. These are what you should implement.) You might find it useful to also describe your tasks as a task hierarchy.

2. What would be nice to have? (List & describe. Be very specific.)

3. What would be a future dream? (List & describe. Be very specific.)

D. Usability requirements

1. Overall Learning Time
   How much overall time will users have to learn the system— the core functions and the advanced functions?

2. Core Function Usability
   For each core function, give a set of average user usability requirements: learning time, skilled performance time, and accuracy. (List & describe. Be very specific)