

**CS 3205 - HCI in Software Development**  
**Assignment 2: User and Task Analysis**  
**Mark Floryan**

**SUMMARY:**

For this assignment, you will be generating a user and task analysis for the project you have decided to work on. This assignment will be done with your group, and you will submit a single document. In short, you will be generating a detailed definition of your users, including user roles and user personas.

Additionally, you will enumerate the tasks your users need to complete within your system. This will lead into a robust definition of the usability goals and requirements for your system.

Lastly, you will discuss the conceptual model of your system. I want you to focus on the abstract nature of the interaction and how this will affect your design once you begin prototyping.

**REQUIREMENTS / DELIVERABLES:**

Your submission will likely be at least 10 but not more than 18 pages in length. Please remember that longer submissions will NOT necessarily correlate with higher grades. In fact, a pithy but substantial submission is preferable.

Please remember that I am looking for you to analyze the aspects of your user base / goals / requirements analytically and in a manner that is specific to your system. Thus, your analysis should always be connected to your system and you should be arguing why the characteristics you identify are important and relevant. I suspect your submission might include the following. This is by no means a required structure, but merely a suggested starting point. **DO NOT** simply follow this summary blindly.

- **Abstract:** *Provide a brief overview of the document and what it will describe. I should have a good idea of what I will find in the rest of the document by reading this section. You should also have an overview of the structure of the rest of the document in this section.*
- **Overview of System:** *Now that you have a group, you may have decided on various changes to the system, how it will work, and what the HCI questions you will investigate are. Give me a brief re-summary of the system, why it is interesting from an HCI perspective, and what aspects of the interaction your project will focus on.*
- **Overview of User Base:** *Provide a high level overview of your user base. This section might be described in mostly natural language, and paints the general picture of the users expected to use your system. If you choose to have this section, it will likely not be long.*
- **User Base Details / User Distribution:** *Provide a more detailed view of your user base. Exactly what do you expect the distribution of your users over important variables to be? Why are the variables you selected relevant when designing your specific interface? What other variables are of interest? I want to see that you've considered several variables that are of interest because of the nature of your system, and that you've estimated the user base across those variables.*
- **User Roles:** *Does your system have different user roles? If so, what are they? Do they have different user distributions than above? If so, how are they different? Define these systematically. If your system does not have user roles, then you do not need to include this.*

- **User Personas:** Provide a user persona for each of the major demographics for your system. I expect that you should be able to come up with at least four distinct user personas. Make sure the differences in the personas are highlighted and described. Discuss some general conclusions that can be drawn from these personas that might be relevant when designing the interface.
- **Task Analysis:** Given the section above, describe more than three (but no more than ten) important tasks for each user role. Prioritize this list. Describe what aspects of the user's characteristics are relevant for achieving these tasks effectively.
- **Usability Goals:** This section should outline the high-level usability goals for your system given the characteristics of its users and the tasks they most wish to complete. Describe at least five usability goals.
- **Usability Requirements:** Given all of the information in the document, formulate at least five falsifiable (where possible), robust usability requirements. Make sure that these requirements are testable, as you will be asked to evaluate your prototypes against these requirements in future assignments.
- **Conceptual Model:** Discuss the conceptual model of your system. What is the nature of the interaction? What are the abstract characteristics of the interaction? How does your user base think about and understand the interaction? What kinds of expectations do these users have regarding the interaction? How might this affect the design of your system? Etc...
- **Conclusions:** Wrap up the document by summarizing the information presented.

#### **GRADING:**

For the rest of the homework assignments, we will be grading on a discrete scale. All members of each group will receive the same grade. Below is an **approximate** description of each grading interval:

- **10:** Paper is well thought out and robust. The user base is described thoroughly and an exhaustive list of relevant variables, roles, and user distributions are identified and discussed. The reasoning for the focus on relevant variables is convincing. User personas are well written and the group has identified the value obtained by writing them. Additionally, usability goals are clear, realistic, and directly related to the conclusions drawn from the analysis of the user base. Usability requirements are unambiguous and testable via experimentation. Lastly, the entire document is cohesive and the lessons from each section (user analysis, user personas, requirements, etc.) draw on each other and are not described as discrete processes.
- **9:** Paper fulfills the qualifications outlined for an 'A' but contains some minor, but very noticeable flaws. Perhaps the individual analyses are well done, but do not relate to one another well enough to generate a cohesive story. Paper may contain a couple obvious venues for analysis that went unexplored (e.g., a major demographic was overlooked, or a better usability requirement could have been included).
- **8:** Paper fulfills the qualifications in the assignment but has more than a few noticeable flaws. The group did not go above and beyond the basic assignment requirements.
- **7:** Paper has at least one MAJOR flaw. The paper makes a strong effort at fulfilling the requirements but demonstrates a major misunderstanding of at least one concept from class. For example, perhaps the group shows a gross misunderstanding of the difference between usability goals and requirements.

- **6:** *Paper demonstrates more than one major misunderstanding of the concepts and/or displays a lack of effort in understanding and applying the concepts from the course. Paper still contains a modicum of useful content.*
- **5 or below:** *Paper is poorly written and organized, demonstrates multiple misunderstandings of the material, and displays a lack of effort on the part of the group.*