> Team Design Project Deliverable #1
> *Early Data Gathering Report*
> *Worth:* 8% of your overall course grade
> *Due*: Thursday, Mar. 22 before 11:59 p.m.
> *Last modified: 21 February 2018*

Overview

In the first phase of the group design project, your team will conduct an early gathering study. In particular, you will research related designs, and perform **contextual inquiries** of at least three prospective users of your chosen technology / interface. You will use your results as a basis for developing user personas, formulating key scenarios, and establishing requirements and submit your results in a formal report.

Note: Ideally, you would be able to use multiple data gathering methods, so that you could iteratively refine and/or triangulate results. However, in this project, there just isn't time.

Steps

1. **Perform background research**. Are there any existing products or technologies that are address your design problem, or a design problem closely related to the one that your project is addressing? To find out, perform a web search, and document what you find. For each related product or technology, (a) write a few sentences that describe what it does and how it relates to what you're doing, and (b) get a picture (screenshot) of the technology, if possible.

2. **Recruit at least three participants.** You need to find people who would could legitimately be prospective users of your technology. For example, if you are designing technology to support running, you need to find actual runners! However, you also want to consider carefully the range of possible people who might use your technology. For example, for running technology, you might want to consider a range of possible runners, including expert/elite runners who log 70-100 miles per week, serious runners who log 30-70 miles a week, and more casual runners who log closer to 20 miles per week. You need not be limited to recruiting just three participants—more would be better—but you need to recruit a ==minimum of three in order to receive full credit for this deliverable.==

3. **Conduct contextual inquiries.** Following the guidelines and procedures for contextual inquiries discussed in class, perform contextual inquiries of each of your three participants. Remember that you need to perform the inquiry in the most naturalistic setting possible—ideally while they are engaging in the target activity. However, this may not be practical in many cases. For example, if you are designing technology to support runners, you may not be able to go on a run with a participant, nor may it be practical to collect data while running! In such cases, it would be best just to sit down with the participant at his/her home or in a neutral location such as the WSU Student Recreation Center. If the problem you are addressing involves supporting some sort of activity, you can use the following questions to help guide your contextual inquiries (*you may need to add/remove/tweak questions*):
   a. How does the participant currently plan his/her activities?
   b. How does the participant currently monitor his/her activities?
   c. How does the participant make sense of, or analyze his/her activities?
   d. Does the participant share his/her activities/progress with others? How?
   e. How does the participant stay motivated to do the activities, both when doing the activities and outside of the activities?

f. Does the participant use any technologies or other resources (including people) to assist him/her in any of the above? Which ones? How are they used?

You should take notes during each contextual inquiry. In addition, if the participant allows it, you should consider **audio**- or **videotaping** each session, as this will provide you with an empirical record to which you can refer later on, if questions about what actually went on arise. If you do audio- or videotape a session, be sure that you include the appropriate clauses in the <mark>informed consent form</mark>. A template informed consent form is included as an attachment to this assignment.

4. ***Analyze results***. Once you have performed at least three contextual inquiries, come together as a team to interpret, analyze, and synthesize the data you have collected. What patterns or themes emerged? You can use the affinity diagram technique discussed in class to facilitate team brainstorming of personas, scenarios, and requirements.

5. ***Write report.*** Write a formal report on what you did and what you learned, according to the requirements below.

Specific Requirements for Report

Your paper should begin with a title page that includes the following lines, in 14 point Times-Roman font, centered both from top-to-bottom and left-to-right:

<div align="center">

CptS 443 Early Data Gathering Report
Team Members' Names
Date

</div>

Your report should be around five to 10 single-spaced pages (11 pt Times-Roman Font, 1 inch margins) not including the title page and the appendices. Your report must include the sections described below. Each section must begin with the section name shown in italics, as illustrated below. You are encouraged to copy/paste the template below into a Word or Google Docs document and use it for your report.

<mark>--begin template--</mark>

Abstract

In 150 words or fewer, succinctly summarize (a) the design problem your team is addressing, and (b) your key findings that shed light on how to address that design problem. It will probably be difficult or impossible to summarize all of your findings in the abstract; instead focus on the most important ones.

Design project focus and research questions

This section (a) introduces the design problem your project's software aims to address, (b) briefly describes your project's proposed technology solution, (c) presents any related products or technologies that address the

problem or a related problem, (d) identifies your proposed software's prospective users, and (d) identifies the key research questions that your contextual inquiry set out to answer (use a numbered list, labeled RQ1, RQ2, …, RQ*n*, so that the questions really stand out).

Participants

This section describes the participants who were involved in your contextual inquiries. While you should provide as much relevant background information on each participant as you can, be sure not to include information that would allow one to identify your participants! For example, rather than saying "Participant 1 was my roommate, John Doe, who is a third-year computer science major at WSU…," say "Particpant 1 was a third-year computer science major at WSU…"

Contextual Inquiry Sessions

This section describes your contextual inquiry sessions and results. It is divided into a number of subsections, as follows.

Process and Environment

Where did each CI sessions take place? How did you conduct them, that is, what was your interview process? Include a step-by-step account of how the interviews proceeded, including any questions you commonly asked.

Common Tasks and Themes

Identify common themes across all of your CI sessions. How do the activities commonly proceed? What technologies or other resources (including people) are commonly used during the activities? What difficulties are encountered?

Unique features of individual CI sessions

Were there issues, observations, or insights that were unique to individual CI sessions? If so, describe them in this subsection.

Synthesis of findings

 In this section, you should synthesize the findings of your contextual inquiries. Elaborate on these findings in the following subsections:

Requirements

Specify the functional, usability, and user experience requirements of your proposed technology, using the following tables. Notice that the tables require you to provide a rationale for each requirement; firmly ground your requirements in your empirical data wherever possible!

Table 1. Functional Requirements and Associated Usability Targets

Functional Requirement	Associated Usability Target(s)	Empirical Source/Rationale

Table 2. User Experience Requirements

User Experience Requirement	Empirical Source/Rationale

Notes:

- All functional requirements in Table 1 must be stated from the user's perspective, e.g., "Users must be able to create a new calendar entry."
- For each functional requirement in Table 1, you must specify at least one usability requirement, which must set a specific performance target in terms of observable, measurable criteria. For example, an acceptable usability requirement associated with the "new calendar entry" functional requirement would be "A user must be able to create a new calendar entry within 10 seconds."
- The user experience requirements in Table 2 must be stated concretely in terms of observable, measurable criteria, For example, an acceptable user experience requirement would be "On a scale of 1 to 10, a user must rate the system a 9 in terms of ease of use."
- You should ground requirements in your empirical data wherever possible. If you do not have empirical justification, then provide a sound rationale instead.

Personas

Present one or more personas that characterize each core user group. Each persona should include the information in, and presentation format of, the sample personas presented in Figures 4.4 and 4.5 of the Barnum text. Here is a list of the items to include within each scenario: name, picture, key demographic info, job title or focus of activity (if relevant), goals (relevant to target activity and technology), environment in which person performs the activity (if applicable), technical or domain expertise (relative to target activity), and a quote that captures the essence of the persona (may be taken from quotes collected with the CIs).

Scenarios

For each persona, create a key scenario that captures the persona's goals relative to the target activity. Each scenario should focus on "the user in pursuit of a goal" (Barnum text). Essentially, you are "crafting the story of your persona's experience" (Barnum text). To that end, follow the guidelines and example scenarios found in the chapter 4 of the Barnum text.

Appendix A: Informed Consent

You are required to obtain consent from all people who participant in your contextual inquiries. Include signed consent forms for each participant you recorded. A template informed consent form, which you can modify for your purposes, is attached to this assignment.

Appendix B: Raw Data

In this appendix, include the raw data you collected: the notes you took during each contextual inquiry, along with links to any recordings you made. Make the recordings available via a protected cloud service such as Dropbox or Google Drive, and provide a private link to the recordings in the appendix.

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Assessment of Report
Your instructor will grade your report according to the detailed grading rubric available through OSBLE.

Assessing Team Members' Contributions to Project Deliverables
All team members are expected to contribute equally to all project deliverables. Early in the process of completing each deliverable, I recommend that your team devise and agree upon a plan that equally distributes the work across team members, and that your team leader take the initiative to ensure that each team member performs the work that was assigned to him or her. To ensure that all team members get credit for the work that they do and that team members do not "free load," I require that team members assess each other's (and their own) contributions toward each project deliverable. You are required to submit this assessment through OSBLE within 24 hours of each project deliverable resubmission deadline. For further details on how to do this, please carefully read the Team Member Assessment document available in the Projects folder on OSBLE. For the project deliverable, submit your assessment through the "Team Member Assessment for Data Gathering Report" assignments.

Handing in the Report
Someone on your project team should submit a **.pdf** version of their report through OSBLE by the due date. (Use the "TDP #1: Data Gathering Report" assignment.).