

# Evaluation Plan

Due: Monday, April 11, Noon

**Attention:** On the due date remember to hand in both an electronic copy to cs125a@cs.brandeis.edu and to turn in a paper copy.

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## Use the DECIDE framework to develop an evaluation plan

<b>1. Goals</b>	
<b>Goals of the study</b>	<p>This study aims at evaluating the effectiveness and usability of the prototype created for improved Yahoo Maps navigation. The information derived from this study will result in fine-tuning the interface to better serve user needs, as well as to facilitate the interaction with the system.</p> <p>Specifically, the goals are:</p> <ol style="list-style-type: none"><li>1. To evaluate the usability of the system for the task of routing through a particular point</li><li>2. ....</li><li>3. ....</li><li>4. ....</li></ol>
<b>Questions pertaining to the goals</b>	<ol style="list-style-type: none"><li>1. Do users smoothly go through the process of inputting the information and getting the desired results? Or do they go back and forth, using the back and forward buttons, between the resulting directions page and the preceding input page?</li><li>2. Do users end up zooming in on the map every time they get the resulting directions?</li><li>3. ....</li><li>4. ....</li><li>5. ....</li><li>6. ....</li></ol>

## 2. Evaluation paradigms

<p><b>Paradigm 1 &amp; associated techniques</b></p>	<p>I will employ the <i>usability testing</i> paradigm as my goal is to measure and improve the effectiveness of ..... This paradigm would best help identify usability issues with respect to the tasks of ... and....</p> <p>User testing in a controlled environment would provide me with quantitative data reflective of the effectiveness with which a user accomplishes the task of finding driving directions by routing through a particular point. Such data will be measured by means of... The set of variables measured will be: duration of work to accomplish the task, number of mouse clicks to accomplish the task, number of times users use the “back” button of the browser... Further.....</p>
<p><b>Paradigm 2 &amp; associated techniques</b></p>	<p>The <i>field studies</i> paradigm will be best suited to explore the effectiveness of the system in particular natural settings it will be used in – e.g. a rental car office that provides courtesy workstations for customers to get driving directions and print them. ....</p> <p>For this purpose it would be most appropriate to use a combination of observing users and asking them about their experiences and opinions.....</p>
<p><b>a. Trade-offs</b></p>	<p>1. While the field studies approach is more naturalistic and will give a better idea of the errors and issues users will encounter in the setting in which they will use the system, it is more costly in terms of organization of the experimental sessions – e.g. contracting with the rental agency, deploying a video camera at the location, having a researcher be present at that location, etc. Also, .....</p> <p>2.....</p> <p>3.....</p> <p>4.....</p> <p>5.....</p>

<p><b>b. Reliability, validity, and bias issues addressed</b></p>	<p>The usability testing approach I have described above will produce highly reliable results for comparable user populations as it measures objective qualitative data, such as..... However, .....</p> <p>The issue of bias needs to be addressed with the field studies approach suggested above. ....</p>
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<p><b>3. Evaluation plan</b></p>	
<p>A combination of usability lab testing and field studies in a rental car agency office will be conducted. For both there will be strict protocol that researchers will follow.</p> <ol style="list-style-type: none"> <li>1. For the lab experiments the protocol is the following:  When subjects arrive they will be seated at a workstation and will be instructed on using the system and on the purposes of the study. They will be offered to read and sign the consent form. Throughout the session of interaction with the system, all data will be digitally logged. They will be given the task of... ..  ..... before they leave they will be asked to fill out a survey that will ask them about their opinions of.....</li> <li>2. For the field studies, the protocol to follow will be:  .....</li> </ol> <p>After X amount of data is collected with approach 1, and Y amount of data with approach 2 – statistical and qualitative analyses will be performed and usability issues that need to be addressed with redesign of the system will be identified.</p>	
<p><b>Subjects</b></p>	<ul style="list-style-type: none"> <li>- a random sample of the population of customers at a rental car agency office</li> <li>- people recruited through an online ad on craigslist to participate in the usability testing; they will be compensated</li> </ul>
<p><b>Equipment. Facilities</b></p>	<p>Video cameras  Digital logging software  .....</p>
<p><b>Scheduling complication</b></p>	<p>None</p>
<p><b>Needed expertise</b></p>	<p>Ethnography specialist;  Statistical analysis specialist  .....</p>
<p><b>Analyses</b></p>	<p>The analyses will be based on the observational and factual information recorded by the observers, the video cameras, the logging device, and.....</p>

**Timetable**

**Week 1:** recruit participants and organize scheduling of experimental sessions; train researchers on protocol guidelines

**Week 2:** .....

**Week 3:** .....

Note: make sure to attach your consent form.