

**Midterm Quiz for HCI 454 with Answers--- Fall 2013**

Due Saturday October 26

This is a take-home quiz. It should be submitted using the D2L Website.

**Instructions:** Initially answer questions without the benefit of the book or notes. Then correct your answers using provided solutions and explain any discrepancies. You will not be penalized for having any initially incorrect questions provided that they are corrected with explanations. Even correct answers should have additional comments and explanations. Your score will be based on the quality of your comments. Use a different font or color when correcting answers or adding comments so that they are easily distinguished from the initial answers. Finally, use the provided answers to obtain an estimated score (your calculated score is for your own assessment and will not be used for scoring the quiz).

For multiple choice (1 point each), circle the best answer.

1. User research methods such as contextual inquiry and interviews are useful for
  - a. developing an interface that minimizes the number of user errors.
  - b. identifying core tasks that users will frequently perform.**
  - c. choosing an appropriate color scheme for a web site.
  - d. minimizing the number of keystrokes for completing a task.
2. Wireframes most usefully indicate
  - a. the color scheme of a user interface.
  - b. the reasons why users need particular tasks.
  - c. the order of user actions needed for completing a task.
  - d. which user controls are placed on a user interface.**
3. Interaction flowcharts typically indicate
  - a. the color scheme of a user interface.
  - b. the reasons why users need particular tasks.
  - c. the order of user actions needed for completing a task.**
  - d. which user controls are placed on a user interface.
4. Information foraging theory usefully explains
  - a. whether a user uses a mouse or the keyboard.
  - b. why a user gives up looking for content on a particular page.**
  - c. the time needed to click on a button.
  - d. the readability of particular fonts.

5. Assume you are developing the information architecture for a bank website. The primary purpose of the site is to inform costumers about the bank's services as well as give them access to online services. Below are methods possible methods for designing the information architecture. However, they are not in a reasonable order. Indicate an appropriate order for conducting these methods by placing numbers next to each method. (4 points)

\_6\_ Create site map.

\_1\_ Perform a content inventory.

\_2\_ Consider five hats organization scheme.

\_3\_ Recruit card sort users.

\_4\_ Ask users to perform a card sort.

\_5\_ Analyze card sort data.

*Note: there might be some value to creating a preliminary site map earlier in the process.*

6. Briefly describe two different approaches for analyzing card sort data for constructing navigation categories. (2-3 sentences per approach, 3 points per approach, 6 points total)

- 1) **(based on Donna Spencer's approach). Using tool such as Websort, identify most frequently created categories with common items. Merge these categories with similarly named categories with common items. Continue merging until all items are accounted for, but being careful not to force items in categories that they don't belong to.**
- 2) **Using the tree structure created from a tool such as Websort, identify natural groupings. Use these groups as the basis for candidate categories. Consider labels that card sort participants gave for the items in these groups.**

7. Consider the interface discussed in class and presented below:

Quarter Autumn 2012 ▾

Class Meeting Days

☐ Monday

☐ Tuesday

☐ Wednesday

☐ Thursday

☐ Friday

Meeting Time 8:00 - 9:30 am ▾

Show Exam Date and Time

Apply each of the following terms in discussing the effectiveness of its design:

1. proximity (Gestalt principle) --- **the check boxes are relatively close to their labels (although the relative distances could even be more striking). This relative proximity helps users associate the checkbox with the label.**
2. Fitts's law --- **The user will probably change the meeting time just before pressing the button. Fitts's law says that the time needed to click the button (with a mouse) will be relatively fast because the distance is small. Making the button larger (height-wise) could make the click time faster.**
3. Hick's law --- **Indicates the selection time for practiced users given the number of items in a menu. Having a lot of Meeting Times has a time cost, but it becomes less significant as more items are added (note log relationship between number of items and selection time).**

You may mark up the user interface for providing your answers. One or two sentences may be sufficient for applying each term. (6 points, 2 points each)

## **Grading Guidelines**

- 20 points --- all answers are provided and corrected as needed. There is a clear distinction between initial answers and comments based on reviewing the given correct answers. Comments thoughtfully reflect differences between initial answers and given correct answers. An overall assessment is provided. Comments are well presented and easy to review.
- 19 points --- all answers are provided and corrected as needed. There is a clear distinction between initial answers and comments based on reviewing the given correct answers. Comments thoughtfully reflect differences between initial answers and given correct answers. Some overall assessment is provided but could be easier to review.
- 18 points --- all answers are provided and corrected as needed. There is a clear distinction between initial answers and comments based on reviewing the given correct answers. Comments reflect upon initial answers but could use more discussion.
- 17 points --- all answers are generally provided and corrected as needed. There is an apparent distinction between initial answers and comments based on reviewing the given correct answers. There is some discussion between initial answers and correct answers.
- 16 points and less --- in proportion to missing answers and corrections.