CPSC 444 Tutorial: Models of Human Performance 2: Visual Perception

Description:

- In this tutorial, you will evaluate the Google Earth application in terms of the visual perceptual concepts: color, attention and grouping.

Objectives:

- By the end of the tutorial, you are expected to be able to:
    - understand the fundamental mechanisms and concepts of some important aspects of human visual perception (three main concepts are covered here – attention, color perception and Gestalt law – due to their pervasiveness and applicability in everyday design)
    - be able to apply the perceptual concepts in analyzing or designing user interfaces
    - Understand the implications of visual perception for information visualisation

Deliverables:

- Your group will hand in your completed worksheet at the end of the visual perception activity; your worksheet will be assessed in terms of both the range and quality of your observations, as outlined on the worksheet's instructions.

Tentative Schedule:

- Quiz + discussion (~15 min)

- The TA demos Google Earth (~10 min)

- Visual perception activity
    - the TA will review the activity instructions (~10 min)
    - grouping task
        - step 1: group brainstorming + complete grouping section of worksheet (~10 min)
        - step 2: write grouping observations on whiteboard (~5 min)
        - step 3: class discussion of grouping observations (~5 min)
    - colour task
        - step 1: group brainstorming + complete colour section of worksheet (~10 min)
        - step 2: write colour observations on whiteboard (~5 min)
        - step 3: class discussion of colour observations (~5 min)
    - attention task
        - step 1: group brainstorming + complete attention section of worksheet (~10 min)
        - step 2: write attention observations on whiteboard (~5 min)
        - step 3: class discussion of attention observations (~5 min)
    - The TA will collect your completed worksheets

- The TA will give an introductory presentation on the topic of Information Visualisation (~10 min)

- Design brainstorm (time permitting)

Google Earth Tasks:

If you are unfamiliar with Google Earth, performing the following tasks will help you explore the application's functionality:

- "Fly To" some cities (such as "Tokyo" or "Truth or Consequences, NM") and view different layers of information (such as "dinning", "lodging", "roads" etc.)
- Once you are viewing a particular city or location, switch to "Find businesses" mode and try to search for some interests (such as "museum", "recreation", etc.). Click on one of the results on the left side bar to see more information about the place.
- Switch to "Directions" tab and type in any two addresses to see the directions between the locations.
- Add a new place mark in a specific location by clicking on a placemark icon in the top panel, or from menu bar "Add" -> "Placemark".

Revision: r1.4 – 18 Nov 2010 – 23:49 – MatthewBrehmer

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