**ITIS 6400/8400 Human Computer Interaction**

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**CA03 – People**

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1. **(~10 minutes) One design for a graphical password asks people to choose a password by clicking on a number of points, in order, on an image such as the one below. They then enter the password by clicking on the same points, in the same order. This system is called Passpoints. Compare Passpoints to regular text-based passwords regarding people’s abilities and limitations with perception, attention, and memory.** 
   1. **Perception**

Since Passpoints are based on the mind’s visual perceptions this means that the points perceived on the click in the image. This image is good to use as an example because of the different colors, but a brick wall would not be good because their are only a few colors on the wall.

* 1. **Attention**

A person need to have enough attention to the picture in order to be able to choose the correct part any time. Processing images by a person will be more difficult for the user especially when the user surrounded by other distracted environment. In text-based password there is a very little possibility of typo errors whereas at most attention has to be paid by the user in case of passpoints.

* 1. **Memory**

It is easier to remember the pattern where they click rather than the lengthy password with different patterns. Although the problem lies for reusing them. A person may tend to use the same password many times for different sites. That may not be the case with the passpoints. Remembering each and every pattern would be difficult. For the image mentioned above as there are different colors mentioned and it is easier to locate the passpoints and this won’t be the same with all the images.

1. **(~5 min) One of the challenges of speech interfaces like Siri or Alexa (Amazon’s Echo) is that it is difficult at first to know what the system can do, and what questions or commands you can ask. Think about the ways that such applications can externalize that knowledge to help users get started. What are some ideas you have seen, or you can think of?**

The speech interfaces could have a help function whether or not it is a button the user presses or a voice command that will list other commands. One common way is a operation manual for each speech interface, is provided with purchase.

1. **(~10 minutes) Below is Don Norman’s 7-step action cycle. Consider the goal of cutting and pasting text in a document on a touch screen (such as a phone or tablet). Go through each step, and list what happens/what the user does. Note that you may want to do this in 2 cycles – one for cutting, one for pasting.**

1. **Goal**: The user moves the text from one document to another.

2. **Plan**: The user plans to highlight the text to cut, and paste into the second document.  
3. **Specify**: The plan is to click and hold the mouse while selecting the which text. Then to right click to select the cut option. Next clicks into the second document and selects where to use the paste option for the text.  
4. **Act**: The user will start executing this plan.  
5. **Perceive**: The user sees the appearance of highlighting text, and then the text being deleted. Next the user sees the text reappear on the second document.   
6. **Interpret**: The user plans that the highlighted text is what is being selected then a right click menu appearing. Next the text disappeared with the menu option chosen.  
7. **Evaluate**: The user reassures that the highlighted text is what needs to be moved and put into the second document.

1. **For the various steps above, critique what could be easy or difficult, based upon users’ abilities.**

1. The goal is the easiest part of process.

2. This could be hard because when the text is highlighted making sure the text selection is correct. Then making sure the text is cut properly and pasted into the correct document.

3. This is harder than number two because the wrong clicks could create unsuccessful process. The user needs to ensure that the clicks are correct with the cut and pasting option in the right click menu. Then making sure the correct document is selected to have the pasted text inputted into.

4. This requires the user to focus on the steps to ensure a successful process in moving the text to another document.

5. The interface should be designed to create an easy process for the user to choose, allowing for a smooth steps.

6. This is a basic process within the application, making it a familiar process for the users. Since most applications use a similar process.

7. This is the easiest of the steps because this step is used to verify that the correct text was cut from one document and pasted into the second correct document.