**Interaction Design Lab – Week 04**

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1. Activity 1

![A screen shot of a computer

Description automatically generated]()

Figure 4.1 Two different ways of structuring the same information at the interface level. One makes it much easier to find information than the other.

Source: Used courtesy of Dr. Tom Tullis

Look at the top screen of Figure 4.1 and

(1) find the price for a double room at the Quality Inn in Columbia, South Carolina, and

(2) find the phone number of the Days Inn in Charleston, South Carolina.

Then look at the bottom screen in Figure 4.1 and

(1) find the price of a double room at the Holiday Inn in Bradley, Pennsylvania, and

(2) find the phone number of the Quality Inn in Bedford, Pennsylvania.

1. **Which took longer to do?**

Actually, It took me about 2 seconds to search top screen and maybe double times (about 5 seconds) to find the bottom screen.

In an early study, Tullis found that the two screens produced quite different results: It

took an average of 3.2 seconds to search the top screen, while it took an average of 5.5 seconds to find the same kind of information in the bottom screen.

1. **Why is this so, considering that both displays have the same density of information relative to the background?**

The picture above seems to logically arrange the information in a horizontal row, classified by each category (city, motel/hotel, area code, phone, rates) meanwhile, the picture below looked even more confusing, as the information gathered on the vertical line. the information is very poorly structured in the bottom than in the top screen.

1. Activity 2

Try to remember the birthdays of all the members of your family and closest friends.

1. **How many can you remember?**

Maybe 10

Then try to describe the image/graphic of the latest app you downloaded.

1. **Which is more likely to be remembered by you? The birthday number or the image, the color, the name of the app you downloaded?**

Red remids me of the app. This app is from the bank when I just created the bank card. Around the red side and inside are the logo and the bank name.

1. Activity 3
2. **How can banks overcome the problem of providing a secure system while making the memory load easier for people wanting to use online and mobile phone banking?**

They can use a 4-6-digit password or if they use the smartphone they can use a fingerprint.

1. Activity 4

The aim of this in-depth activity is for you to try to elicit mental models from people. In particular, the goal is for you to understand the nature of people’s knowledge about an interactive product in terms of how to use it and how it works.

* + 1. First, elicit your own mental model. Write down how you think contactless cards (see

Figure 4.10) work—where customers place their debit or credit card over a card reader. If

you are not familiar with contactless cards, do the same for a smartphone app like Apple

Pay or Google Pay. Then answer the following questions:

1. **What information is sent between the card/smartphone and the card reader when it is placed in front of it?**

I think it is the cardholder's name, card number, account balance, amount you need to pay.

1. **What is the maximum amount you can pay for something using a contactless card, or Apple/Google Pay?**

For credit cards, the maximum amount you can pay will usually be twice your salary.

For Google Pay, you can only use the amount you have on the card.

1. **Why is there an upper limit?**

Because they think you may be too much debt and can not afford to pay.

1. **How many times can you use a contactless card or Apple/Google Pay in a day?**

Maybe 1 or 2 times for a month.

1. **What happens if you have two contactless cards in the same wallet/purse?**

I don’t know, I have never met that case

1. **What happens when your contactless card is stolen and you report it to the bank?**

I think the bank will lock the card and require a password change.

Next, ask two other people the same set of questions. Now analyze your answers.

1. **Do you get the same or different explanations?**

Yes, I get the same explanations but for the question 9 : Depending on the shopping of each person

1. **What do the findings indicate?**

Using the card is convenient, but not really safe, it can be lost.

1. **How accurate are people’s mental models about the way contactless cards and smartphone Apple/Google Pay work?**

Need user information, database to work out how it works.

A close up of a device

Description automatically generated

Figure 4.10 A contactless debit card indicated by symbol