

## In-Depth Activity

*This activity is intended for you to put into practice what you have studied in this chapter. Specifically, the objective is to enable you to define usability and user experience goals and to transform these and other design principles into specific questions to help evaluate an interactive product.*

Find an everyday handheld device, for example, a remote control, digital camera, or smartphone and examine how it has been designed, paying particular attention to how the user is meant to interact with it.

(Continued)

- (a) From your first impressions, write down what is good and bad about the way the device works.
- (b) Give a description of the user experience resulting from interacting with it.
- (c) Outline some of the core micro-interactions that are supported by it. Are they pleasurable, easy, and obvious?
- (d) Based on your reading of this chapter and any other material you have come across about interaction design, compile a set of usability and user experience goals that you think will be most relevant in evaluating the device. Decide which are the most important ones and explain why.
- (e) Translate each of your sets of usability and user experience goals into two or three specific questions. Then use them to assess how well your device fares.
- (f) Repeat steps (c) and (d), but this time use the design principles outlined in the chapter.
- (g) Finally, discuss possible improvements to the interface based on the answers obtained in steps (d) and (e).

We have discussed the mouse we had. The mouse I have is from Xiaomi Corporation.



(a) From your first impressions, write down what is good and bad about the way the device works.

Answer:

**Good:** Wireless, simple design, light, looks very clean;

**Bad:** not suitable for everyone – especially for USA citizen (most local citizen) who might have bigger palm;

(b) Give a description of the user experience resulting from interacting with it.

Answer:

Very comfortable. And size is actually suitable for my hand. It never disconnected – unless out of power. I can detach the case easily (using magnet) to change the battery; No extra wires exist. The professional level (at least outside) is good enough.

(c) Outline some of the core micro-interactions that are supported by it. Are they pleasurable, easy, and obvious?

Answer:

- 1) The case was attached by magnet – no extra wires, etc.. I can open the case easily and it will not detach easily too.



- 2) The button to open the mouth is under the mouse while it does not affect the usage.



- 3) The USB connector is embedded inside of the case – so it is hidden. When you need to  
And this design also reduce the possibility to lost the USB connector.



(d) Based on your reading of this chapter and any other material you have come across about interaction design, compile a set of usability and user experience goals that you think will be most relevant in evaluating the device. Decide which are the most important ones and explain why.

Answer:

- 1) Satisfying – yes I have the feeling
- 2) Helpful – yes I think it is very helpful. It is not a trouble maker
- 3) Enjoyable – the connection is great and I enjoy using it

- 4) Pleasurable – sometimes I prefer use it in the department lab computer
- 5) Emotionally fulfilling – it gives me the secure feeling. It never fails a job

I think the most important one is emotionally fulfilling. Sometimes when coding become pressure, the usage of the mouse will make people feel reliable and enjoyable. Other than that, the wireless design release me from spending time to manage the cables.

(e) Translate each of your sets of usability and user experience goals into two or three specific questions. Then use them to assess how well your device fares.

Answers:

- 1) Satisfying
  - Does the mouse functional well and reliable?
  - Does the mouse need change battery often?
- 2) Helpful
  - Does the mouse help you finish homework well?
  - Does the mouse save your time?
- 3) Enjoyable
  - Do you feel OK when using it to play online game?
  - Do you feel fun to use to cope with intense deadline?
- 4) Pleasurable
  - Do you feel delighted when trying to replace the battery?
  - Do you feel happy when you use this mouse to draw sometime?
- 5) Emotionally fulfilling
  - Do you feel relax when using it? (instead of anxiety)
  - Do you feel happy when using it to chat with your friends?

(f) Repeat steps (c) and (d), but this time use the design principles outlined in the chapter.

- 1) Visibility:  
The button to control the power is well presented. When power off, it shows red.



## 2) Feedback

The connection is great. For example, when I open the computer, and I move the mouse a little bit, the cursor on the computer shows up after 2-3 seconds. The delay is within a good acceptable time. Even when I remove the USB connector, I can immediately use the mouse once the connector is plugged back – not further action needed.

## 3) Constraints

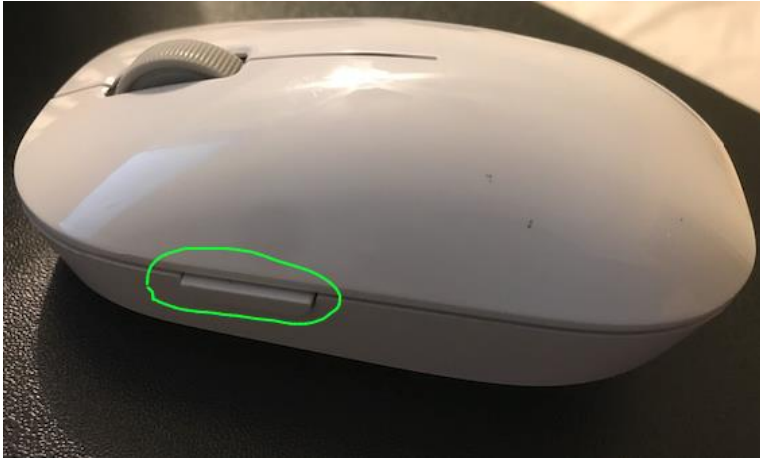
I cannot see any screw on this mouse and it prevents people to separate it. However, there is no where I can see any signal when the power is almost finish. Thus, each time when the power is completely off, I have no preparation.

## 4) Consistency

The mouse never gives me surprise. When I use it, it shows same models and pattern. So I can well predict the function and thus can handle it properly. And the way to use the mouse is easy. The way to use the USB connector and replace the battery is also easy.

## 5) Affordance

For example, the USB connector slot is easy to understand how to use. And the pulley also indicate how I should use it. However, there is another button I am not sure what is it use for – this is probably a not a afford point.



(g) Finally, discuss possible improvements to the interface based on the answers obtained in steps (d) and (e).

- 1) One way to improve it is to design a tiny signal slot which can indicate the current power of the battery. When the light becomes yellow, I will know it is time to find a new battery for its anytime power off scenario.
- 2) Give the mouse a slot to charge via cable (more option) – in case you want to save money. When the battery is power off – maybe 5 months later, you already forget where you saved the previously purchased batteries.
- 3) Give more hints to the side button – and make the mouse to have more affordance.
- 4) Enhance the feedback time – from 2-3 seconds to 0.5 second.