

Human Computer Interaction

Lab Class #2

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The Computer

3. Consider the following scenario: “Word processor for blind people” and choose a suitable combination of input and output devices to best support the intended interaction. It may help to identify typical users or classes of user, and identify how the devices chosen support these people in their tasks. Explain the major problems that the input and output devices solve.

Since blind people can't use the regular keyboard and monitor, these devices must be replaced by others that do the same but in a more accessible way. For instance to solve the keyboard problem we can replace the characters that are written in the keys by braille 3D characters. Voice recognition can also be a way to solve the input problem since it relies only on the user's voice.

The output problem would need to be fixed replacing the usual monitor with a device that would appeal only to the hearing sense. For instance if a blind person is using these devices it would need an immediate feedback with sounds from the device for every action that was completed.

4. Describe Fitts' Law (see chapter 1). How does Fitts' Law change for different physical selection devices, such as a 3-button mouse, a touchpad, or a pen/stylus?

Fitts' Law predicts the time that it takes for a human to move from an initial position into a destination area. This law is most used in the study of human-computer interaction especially in the case of using a pointing device in a computer monitor to virtually touch an object.

For a 3-button mouse that law has to change in order to increase the time that it takes to click the correct button from the three available. In a touchpad the friction of the user's fingers must also be taken into account, because it can differ from touchpad to touchpad.

So we can say that the Fitts' Law changes from device to device because each device has a way to be handled that can take more or less time.