Input Devices

Two input devices I have used in my project are:

Keyboard

The keyboard is the most widely used input device and is used to enter data or command to the computer. It has a set of alphabet keys, a set of digit keys, and various function keys. The layout of the letters on a keyboard is standard across many countries although slight variations are necessary where languages use additional letters in their alphabets. The keyboard illustrated below is called a QWERTY keyboard. The name comes from first six keys on the top row of the alphabetic characters.

I used the keyboard in my project to input data into the Talini™ when creating a homepage for my website. I also used it to input data in mail-merge, spreadsheets and databases. It is fairly easy to use and flexible. It provided me an ease in typing in, and it was rather more convenient than writing on a line paper as I was capable of erasing wrongly keyed in or misspelled words. The keyboards now days come with a numeric pad or hot/function keys which make tasks even easier. I had been told that QWERTY keyboards are based on the way typewriters were designed (I do not know whether it's a fact).

The advantages of using a keyboard are you can enter text easily and some keyboards are designed with a curved key layout to make typing faster and more comfortable. The keyboard was a vital part of my coursework, it helped me in all sorts of ways - it will be very difficult to cope without one. I didn't undergo any trouble using keyboard. It played a vital role in computers. These keyboards are widespread; all desktop computers have one, they are straightforward, trouble-free and simple to use. They are also good for your fingers, scientists say. It is good for your fingers as they are kept active when they move about to press or push buttons on the keyboard.

The disadvantage of a keyboard in comparison with other input devices, entering data using a keyboard is quite slow, even for touch-typists who have basically learnt to type using all their fingers and thumbs without needing to look at the keyboard. As a result it is easy to mistakes e.g. typing errors if anyone can't type quickly.

Mouse

The movement of the mouse is mirrored by the pointer on the monitor screen. There are usually two or three buttons. When the screen pointer is over an icon or menu selection, the mouse button can be

clicked, double clicked or dragged (moved with the buttons held down) to activate a process.

I used the mouse in my project: Talini™ to facilitate the run of the cursor on the monitor. It enabled me to activate processes by clicking on the buttons or double-clicking. I could also hold down the button of the mouse to drag an Icon across the screen. The mouse also consists of wheel as well as the buttons – the wheel is also known as a roller or a ball. The wheel facilitated in many uses of my coursework although the functions were dependant on the software being used on the computer: in a document, it allowed me to scroll up and down; in a desktop publishing package e.g. Serif Web plus it enabled me to zoom in and out of the page.

The advantages of using a mouse are simple, trouble-free and very straightforward to make use of. It is extremely easy and exceptionally accurate for selecting things. The mouse also enabled me to move the cursor faster than using keystrokes.

The disadvantages of using a mouse are it needs a little room beside the monitor as it requires moving hand from keyboard to mouse and back. The hand tires faster with a mouse than usual since there is no support.

Three other input devices could have been in my project:

Tracker ball

The Tracker ball is basically an upside down mouse. It is very similar and works in the same way as a mouse but the ball is set into a cup on the top of the unit. The palm of the hand is used to roll the ball in any direction. The ball controls the movement of the pointer on the screen. Buttons of the Tracker Ball work in the same way as mouse buttons to activate processes on the screen.

I could have used the Tracker Ball in my project as a mouse to activate processes in the screen. As well as instead of moving the whole mouse around, it could have been sort of easier for me to roll the Tracker Ball, which is on the top.

The advantages of using a Tracker Ball are it takes less space as it does not need as much desk space as a mouse. It is also not as tiring since less motion is needed.

The disadvantages of using a Tracker ball are it requires fine control of the mouse with a palm. It also involves moving hand from keyboard to Tracker Ball and back. Repeated motions like this may tire your hand. Finally, as most of us know that mouse are supplied as standard but a Tracker ball does not come with all suppliers or with all purchases. Its features and models also differ from company to company. One cannot always expect to get a Tracker Ball with packages of PCs - only if they are specifically getting a particular one.

Joystick

The Joysticks are popular input devices for interacting with computer games even though they are used in other conditions e.g. hospitals. They can be used to move a computer controlled device such as robots. The hand grip is fixed to a base and can be moved around the central-axis in any direction but is spring-loaded to return to the centre when the hand pressure is released.

I could have used the Joystick in my project to move the cursor or the pointer in the monitor by moving a vertical stick.

The advantages of using Joysticks are they consist of 'force-feedback' which will enable me to feel some of the forces that might be experienced in real life to sense immediate feel of direction. They also consist of more buttons for special functions than a mouse.

Disadvantages of using Joysticks are they are more expensive, bulky and better ones require an additional peripheral card for best performance.

Scanner & OCR (Optical Character Reader)

The scanner is used to input data, pictures and any sort of text. It works by placing the picture to be scanned down on a glass-plate like a photocopier. Scanners basically, convert images into digital data. They work a bit like fax machines as well. ⮝ picture is passed through the scanner and is converted into digital data – light and dark parts of the picture are given different codes. There are other types of scanners as well e.g. small scanners that are usually hand-held. They are rolled over the document or picture.

I could have used a Scanner in my project to input pictures and texts, those images and texts will then be converted into digital data. This could have been very convenient if I had used it in my project which could have saved my time since there would be no need to type in the data.

⮝ benefit for a Scanner is that the scanned images can be manipulated and edited easily and quickly. So scanning text in order to recognize the words and letters require special software OCR (Optical Character Reader). This scans in the text very easily inputs everything from a sheet paper or a document.

⮝ problem is that bitmap files can be very large which acquire a lot of memory. Secondly, it only scans one page at a time. Finally, some of the text scanned is not very accurate or well recognized.