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ASSIGNMENT

1. Differentiate between input and output devices. List 10 examples of each.

ANSWER

An Input device sends information to a computer system for processing, and an Output device reproduces or displays the results of that processing. Input devices *only* allow for input of data to a computer and output devices *only* receive the output of data from another device.

Most devices are only input devices or output devices, as they can only accept data input from a user or output data generated by a computer. However, some devices can accept input and display output, and they are referred to as I/O devices (input/output devices).

For example, as you can see in the top half of the image, a keyboard sends electrical signals, which are received by the computer as **input**. Those signals are then interpreted by the computer and displayed, or **output**, on the monitor as text or images. In the lower half of the image, the computer sends, or **outputs**, data to a printer, which will print the data onto a piece of paper, also considered **output**.

An **Input** device can send data to another device, but it cannot receive data from another device. Examples of input devices include the following.

* Keyboard and **Mouse**- Accepts input from a user and sends that data (input) to the computer. They cannot accept or reproduce information (output) from the computer.
* **Microphone**- Receives sound generated by an input source, and sends that sound to a computer.
* **Webcam**- Receives images generated by whatever it is pointed at (input) and sends those images to a computer.
* **Touchpad-**

Also known as a trackpad, a touchpad is a common substitute for a computer mouse. It is essentially a specialized surface that can detect the movement of a user's finger and use that information to direct a pointer and control a computer.

* **Scanner-**

The word "scanner" can be used in a number of different ways in the computer world, but here I am using it to refer to a desktop image scanner.

* **Digital Camera-**

Digital cameras are used to capture photographs and videos independently. Later, these photo and video files can be transferred to a computer by connecting the camera directly with a cable, removing the memory card and slotting it into the computer, or through wireless data transfer methods such as Bluetooth.

* **Touch Screen-**

Many devices nowadays use a touch screen rather than a mouse as a way for users to point, drag, or select options on a screen

* **Joystick-**

Joysticks are commonly used to control characters and vehicles in computer video games.

* **Graphic Tablet-**

Also known as digitizers, graphic tablets are input devices used for converting hand-drawn artwork into digital images.

**OUTPUT DEVICE**

An  **Output** device can receive data from another device and generate output with that data, but it cannot send data to another device. Examples of output devices include the following.

* **Monitor**- Receives data from a computer (output) and displays that information as text and images for users to view. It cannot accept data from a user and send that data to another device.
* **Projector**- Receives data from a computer (output) and displays, or projects, that information as text and images onto a surface, like a wall or a screen. It cannot accept data from a user and send that data to another device.
* **Speakers**- Receives sound data from a computer and plays the sounds for users to hear. It cannot accept sound generated by users and send that sound to another device.

## Printer- The function of a printer is to create a copy of whatever is sent from the computer to the printer.

## Headphones- Headphones output audio from a computer through two individual headphones for a single listener. Also known as earphones, headphones allow you to listen to audio without disrupting other people in the vicinity.

## GPS (Global Positioning System)- GPS is a radio-based navigation system that’s composed of a sender computer and a receiver.

## Sound Card- The sound card controls the output of sound signals, enabling devices like speakers and headphones to work.

## Video Card-**:** As with the sound card, the video card is an expansion card that slots into the motherboard.

## Braille Reader- A braille reader is a peripheral device that enables a blind person to read text displayed on a computer monitor.

## Speech-Generating Device (SGD)- SGDs, also known as voice output communication aids, generate text to speech. A user types something and when the command is sent, the SGD reads the sentence out loud.