

What are Human-Computer Interfaces (HCIs)?

Human-computer interface is the term used to describe the way in which people and computer systems interact. To allow a person and a computer system to communicate, an interface is required, often called a human-computer interface.

Command Line Interface (CLI)

A command line interface is an entirely text-based interface that allows a user to communicate with a computer system by typing in commands. However, computer systems will only execute specific commands that are predefined. Before graphical user interface were developed, command line interfaces were the most widely used interface.

Graphical User Interface (GUI)

A graphical user interface is a type of interface that allows users to interact with a computer system through graphical icons.

GUIs were introduced to help users, especially beginners, to use computer systems as command line interfaces were found to be difficult.

A graphical user interface has many different features.

These include:

- **Windows**
- **Icons**
- **Menus**
- **Pointers**
- **Assistants/help files/tutorials**
- **Favourite settings/change environment/customisation**
- **Shortcuts/hot keys**
- **Task bar/ribbon bar/tabs/customised toolbar.**

Voice driven interface

Voice driven interfaces, also called voice recognition, can be used to issue commands to a computer system and enter data into it. Voice driven interface is a popular interface as it is natural for people to communicate in this way.

Biometrics

Modern computer systems use biometric input to identify and validate system users. The first use of a biometric system on a portable device was fingerprint scanning on the Pantech GI 100 mobile phone in 2004. Every iPhone from the iPhone 5s to the iPhone X has integrated a fingerprint scanner. By 2017, with the launch of the iPhone X, Apple have used facial recognition via the camera and thousands of spots along the user's face to identify the user's facial patterns. This technology is not only used to open the device, but also to pay for goods via Apple Wallet and software in the app store.

Menu driven interface

This type of interface allows people to interact with a computer system by presenting the user and allowing them to work through a series of menus. The original iPod Classic is a perfect example of a device which uses a menu driven interface. Users are first introduced to a menu which includes a list of artists. Having chosen an artist, another menu appears with a list of albums belonging to that artist. Following this, another menu is presented with a list of songs belonging to the chosen album.