What are Non-WIMP/Natural/Multimodal Interfaces?

Definition: These interfaces go beyond traditional screen interactions (like Windows, Icons, Mouse, Pointer - WIMP) to include natural ways of interacting with technology.

Features: Voice, touch, gestures, and eye-tracking.

Example: Using voice commands to control smart home devices (e.g., "Turn on the lights") or waving your hand to navigate through a VR menu.

How does language understanding impact HCI?

Definition: Language understanding in HCI means computers can recognize and interpret human speech, enabling more natural, conversational interactions.

Impact: Makes technology more accessible, especially for tasks that are easier done by voice.

Example: Talking to virtual assistants like Alexa or Siri to set reminders or play music.

What role do gestures play in HCI?

Definition: Gestures allow people to interact with systems by moving their hands, arms, or body to control actions.

Purpose: They make interactions feel more natural and are particularly useful in hands-free situations.

Example: Using hand gestures to play VR games or swipe motions to flip through photos on a phone.

What are Mobile and Handheld Interactions?

Definition: Gestures allow people to interact with systems by moving their hands, arms, or body to control actions.

Purpose: They make interactions feel more natural and are particularly useful in hands-free situations.

Example: Using hand gestures to play VR games or swipe motions to flip through photos on a phone.

What is Mixed and Augmented Reality?

Definition: These interactions are specifically designed for portable devices like smartphones and tablets.

Features: Multitouch screens, voice input, motion sensors (for tilting or shaking).

Example: Pinching fingers on a smartphone screen to zoom in on a photo.

How does high-end cloud service enhance HCI?

Definition: Cloud services provide powerful processing that supports more complex interactions on simple devices.

Benefits: Real-time data processing, storage, and support for features like voice recognition on phones and smart devices.

Example: Using Google Photos, which stores photos in the cloud and uses advanced image recognition to let you search by faces, locations, or objects.