

HCI (Human-Computer Interaction) - Summary

1. What is HCI?

HCI is about how people interact with computers, phones, apps, and machines. It focuses on making systems easy, comfortable, and enjoyable to use.

2. Why we study HCI?

- To make technology easier for people.
- To reduce mistakes.
- To make users faster and more productive.
- To improve satisfaction and reduce frustration.

3. Who are the users?

- Normal everyday users
- Experts (like doctors, engineers)
- People with disabilities

HCI aims to support all types of users.

4. What is Usability?

Usability means how easy and comfortable a system is to use.

A usable system is easy to learn, fast to use, reduces errors, and feels satisfying.

5. Key Aspects of HCI:

- User: the person using the system
- Tasks: what the user wants to achieve
- Interface: the screen, buttons, menus
- Environment: where it's used (school, hospital, office)
- Technology: the devices and software

6. Importance of Interface:

A good interface improves speed, comfort, business success, and in critical systems (like hospitals), prevents accidents.

7. Example System and Problems:

System: E-learning platform

Problems:

- Hard-to-find buttons
- Difficult upload process
- Needs strong internet
- Crowded screen might confuse users

8. Areas Influenced by HCI:

- Phones (touch screens, voice assistant)
- Education (e-learning systems)
- Healthcare (clear medical screens)
- Gaming (simple controls, VR)
- Cars (dashboard and GPS interfaces)

9. Importance of Being Human-Centred:

- It ensures Safety, Effectiveness, and Ethics in design.
- Safety: prevents accidents caused by confusing systems
- Effectiveness: systems are easier and more productive to use
- Ethics: protects privacy, honesty, and fairness