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- ✓ HCI is the **Study of Usability and Its Practice**
 - ✓ – Understanding or creating software and other technology that **people will want to use, will be able to use and will find effective when used.**
 - ✓ In essence HCI focusses on Usability concepts and **methods to encourage it, achieve it and measure it.**
 - ✓ Also viewed as **Design of Interface ranging from**
 - ✓ **Unimodality v/s multimodality ;**
 - ✓ **Intelligent Adaptive v/s Command / Action based ones**
 - ✓ **Active v/s passive interfaces**

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- ✓ Key aspects of HCI are **Functionality and Usability**
 - ✓ Functionality – Set of **actions or services** that a system provides to its users.
 - ✓ Value of functionality is visible only when it becomes possible to be efficiently utilized by the USER
 - ✓ **Usability of a System** with certain functionality is the **range and degree by which the system can be used efficiently and adequately to accomplish certain goals for certain users.**
 - ✓ **Effectiveness** of the system – balance between **functionality and usability**
 - ✓ Similar trade off as with **Efficacy v/s Efficiency for Robustness**

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- ✓ HCI is an emerging (or shud we say emerged!) trend in **Computer Engineering**
 - ✓ **Computer Engineers** – analyse and design and evaluate computer systems – both **Hardware and Software**
 - ✓ **ACM** mandate of **COE** is skillsets for **Efficient Hardware and Software Interaction**
 - ✓ **HCI focuses on the** Design Issues related to Software Manufacturing **or Development**
 - ✓ HCI – also defined as the **Study of How People Interact with Computers** and to what extent **computers are or are not developed for** successful interaction with human beings.

- ✓ HCI comprises of THREE Parts –
- ✓ **USER, COMPUTER and INTERFACE**
- ✓ **USER:** Individual or Group of Users working
- ✓ Issues such as – Appreciation of People's sensory system to relay information
- ✓ Differing conceptions or mental models of interaction by different users
- ✓ Role of Cultural or National Differences in Interaction
- ✓ **COMPUTER** – Desktop to Large Scale Systems – In a design task of Website Creation – Website is the **COMPUTER**
- ✓ **Smart Phones, VCR's etc. are all computers!**
- ✓ **INTERFACE:** balance between what is ideal and what is feasible for USERS

- ✓ **Goals of HCI** – Produce **Usable, Safe and Functional Systems**
- ✓ Put **people first is the mantra of HCI**
- ✓ **HCI** – understands factors that determine how people use technology
- ✓ **Large Focus** – create efficient, effective and safe interaction
- ✓ Users **needs, capabilities and preferences** for various tasks – should drive the System Designers
- ✓ **People shud not be forced to change the way** that they use a system in order to fit in with it! As opposed to
- ✓ **System should be designed to match their requirements**

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- ✓ Usability – one of the key concepts in HCI – focus in on creating systems that are easy to learn and use.
 - ✓ **Usability is Characterized by 5 E's;**
 - ✓ Easy to Learn
 - ✓ Easy to remeber how to use.
 - ✓ Effective to Use
 - ✓ Efficient to Use
 - ✓ Enjoyable to Use
 - ✓ **Why is USABILITY so Important**
 - ✓ **Modern system have least regard for this measure!**

- ✓ How many times have **V** come across glass doors with a **handle** that does not indicate the opening mode ! (design term is **AFFORDANCE**....what operations does a feature allow!)
- ✓ Push AND Pull Stickers **are** not SIGNS of a GOOD Design!
- ✓ Design of the Handle should indicate the affordance!
- ✓ Photocopiers – XEROX machines – two buttons with ! And C.
- ✓ C is treated by modern day users as COPY ! But in the Photocopier the ! Is the copier operation and C is for Cancel
- ✓ Not to entirely blame given the C for Cancel model from Calculators usage!!