

Human Computer Interaction

OVERVIEW

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Daily Challenges

How many of you can use all the functionality in your

- VCR
- Digital watch
- Copy machine
- Stereo system
- Plumbing fixtures



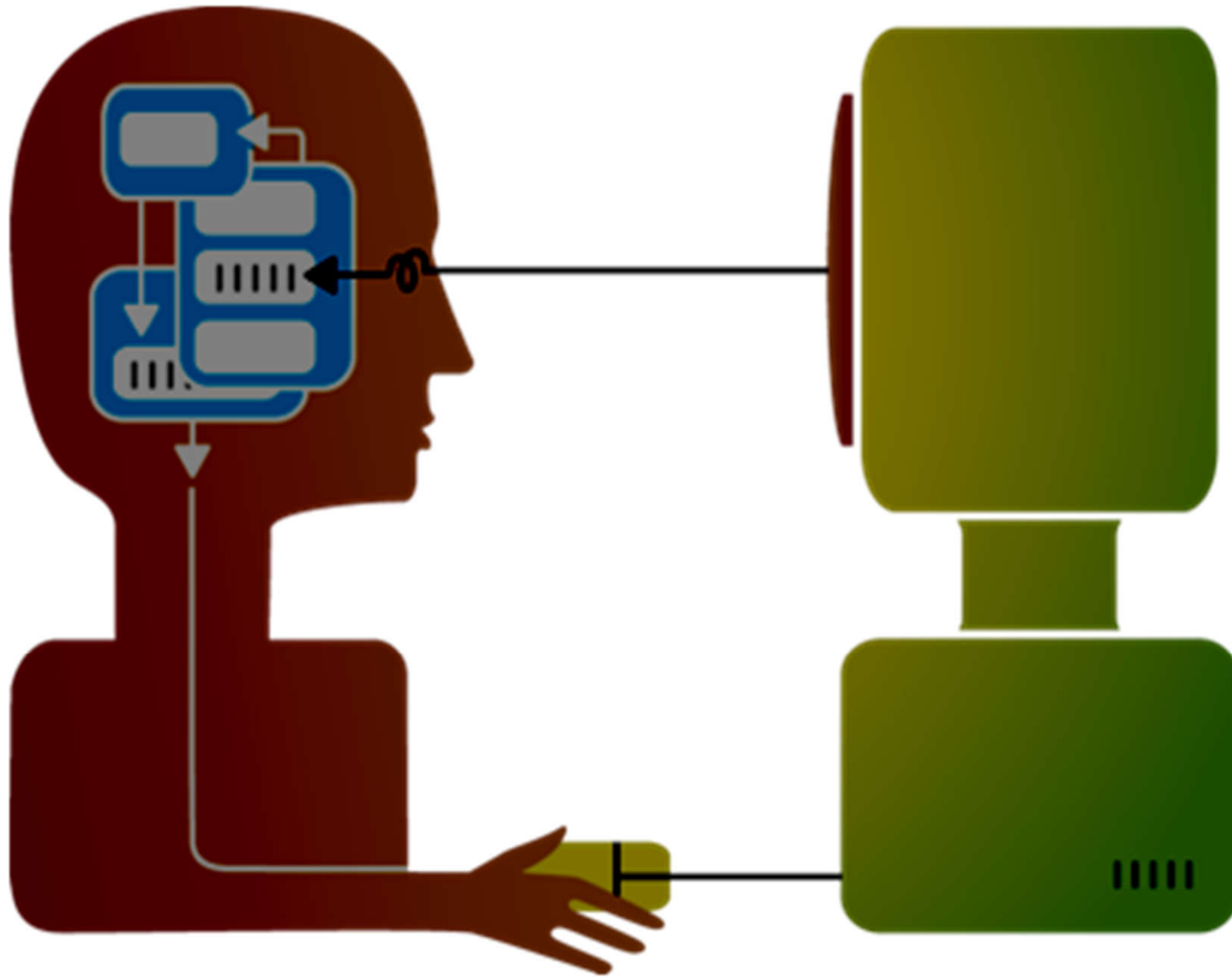
Objective

Study of interaction between human and computer to design human-centered skills, so that there are principles and methods to create excellent interfaces with any technology

Hottest Topic

- It is the hottest topic among it proffesionals of today
- Serious research in this area has just begun which promises of fundamentally changing computing
- Spectacular growth of world wide web is the direct result of HCI research
- HCI would play a leading role in the creation of tommorow's exciting new user interface software

What is Human Computer Interaction (HCI)?



Definition

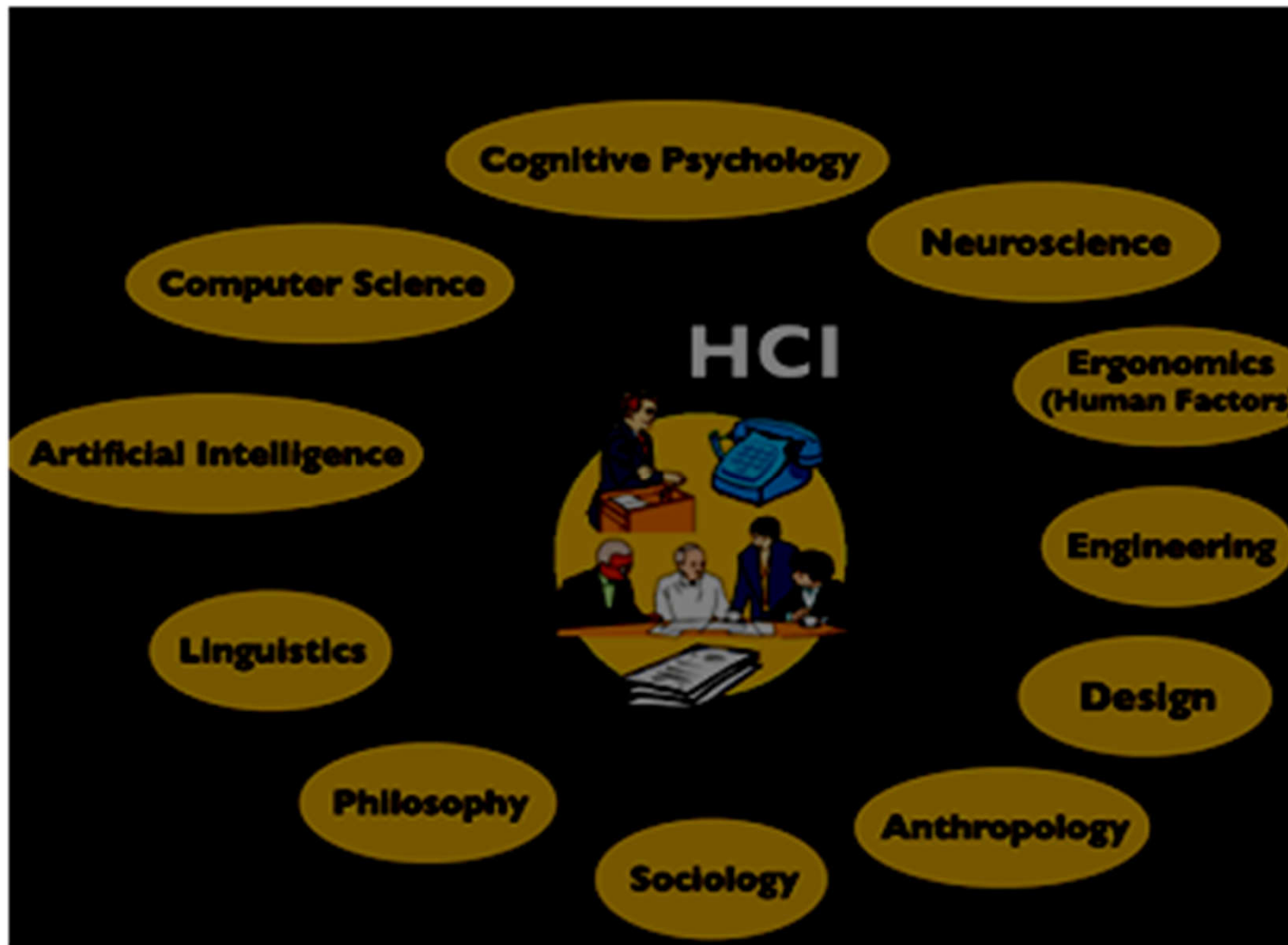
“ Human-computer interaction is a discipline concerned with the design, evaluation and implementation of interactive computing systems for human use and with the study of major phenomena surrounding them. ”

[ACM SIGCHI Curricula for Human-Computer Interaction [Hewett et al., 2002, page 5]]

What is Human Computer Interaction (HCI)?

- ▶ Human Computer interaction (HCI) is characterized as a dialogue or interchange between the human and the computer because the output of one serves as the input for the other in an exchange of actions and intentions.
- ▶ HCI is the study of interaction between people (users) and computers.
- ▶ Human Computer Interaction is concerned with the design, evaluation and implementation of interactive computing systems for human use and with the study of major phenomena surrounding them.
- ▶ Human Computer Interaction (HCI) is an interdisciplinary field in which computer scientists, engineers, psychologists, social scientists and design professional play important roles.

Human Computer Interaction (HCI) is an Interdisciplinary field



Human Computer Interaction (HCI)

▶ HCI tackles questions concerning how people interact with computers

Are computers intuitive or complicated?

Are computers rewarding or frustrating?

How can computers be made accessible to everybody (e.g. different physical abilities, different languages etc.)?

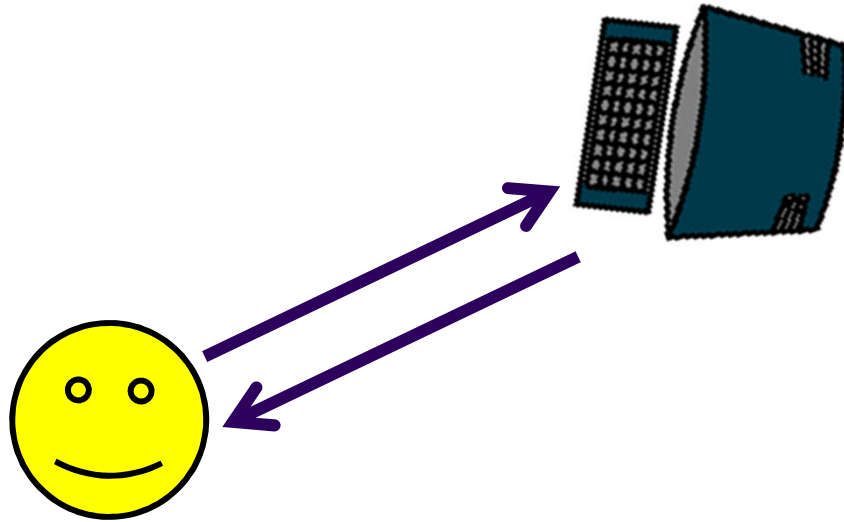
To what level can computer interaction be standardized?

Are computers “user-friendly”?

What does it mean to be “user-friendly”?

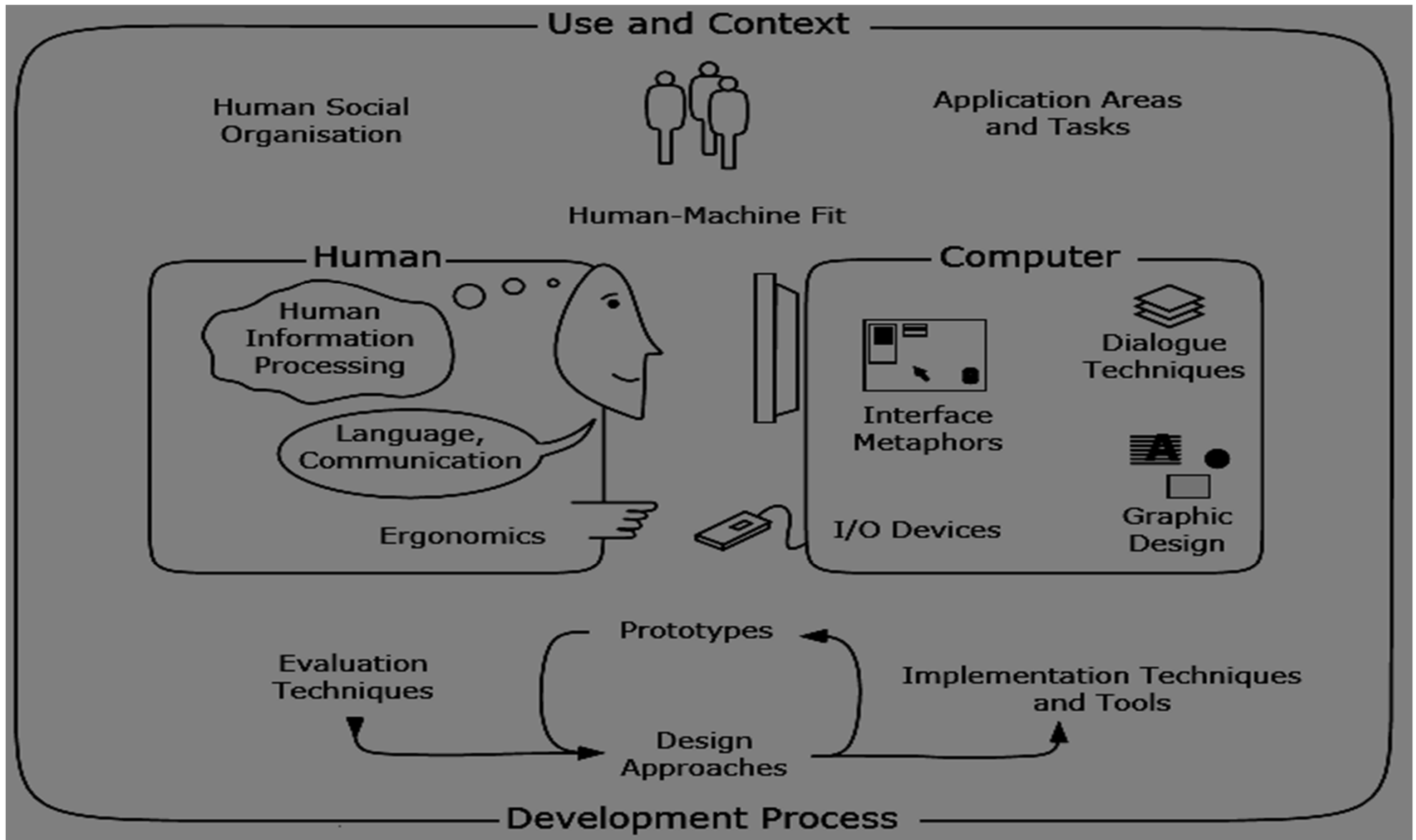
Human Computer Interaction has Three Components

- ▶ Human
- ▶ Computer
- ▶ Interaction



The goal of HCI is to improve the interaction between users and computers by making computers more user-friendly and receptive to the user's needs.

Content



The nature of Human-Computer Interaction. Adapted from the ACM SIGCHI Curricula for Human-Computer Interaction [Hewett et al., 2002]

References

- Donald Norman, The Design of Everyday Things, MIT Press, 23 Dec 2013
- Wikipedia; Human-Computer Interaction; http://en.wikipedia.org/wiki/Human-computer_interaction
- ACM SIGCHI; <http://acm.org/sigchi/>
- Usability.gov; <http://usability.gov/>