

**COM/011/19**

**FAITH WATIRI WAIRIMU**

**COM 415**

**HUMAN COMPUTER INTERACTION**

**PRESENTING TO PETER SOITA**

**CAT 2**

1.Give two drawbacks of usability testing?

Usability test outcomes are arguable

Since users are selected randomly and the testing is not 100% representative of the real-life experiences, the test outcome may be compromised. To get absolutely correct results, all the participants will have to report reasonable and accurate inputs, which is unrealistic.

It is expensive

Usability tests have a broad scope and take an extended period to perform. This means a bigger budget and essentially higher costs for the organization

2. Explain the aspects of the loop interaction

Loop of interaction is the flow of information between human and computer. Aspects of loop of interaction are:

Task environment- it starts from the conditions and goals set upon the user.

Machine environment-this is the environment in which a computer is connected to.

Output- it originates from the machine environment. This is the feedback of user information by a computer.

Input flow-flow of information that originates from the task environment when a user has tasks requiring to use a computer.

Areas of the interface- Non overlapping areas involve processes of the human and computer not pertaining to their interaction. Overlapping areas only concern human and computer interaction processes.

3. Information is being received and responses given via a number of input and output channels: explain by giving three examples

Visual channels

Visual channels are a way to control the appearance of marks, independent of the dimensionality of the geometric primitives. Examples are screenshots, GIF’s and videos.

Auditory channels

Are bidirectional, communicative connections between two systems typically a human user and a technical product. Example notifications.

Sensory memory

Are memories which are stored for tiny time periods and which originate from our sensory organs. Example feeling a gum under a chair and seeing a dog.

4. Explain goals of HCI

Improve the [interactions](http://en.wikipedia.org/wiki/Interactions) between users and computers by making computers more [usable](http://en.wikipedia.org/wiki/Usable) and receptive to the user's needs.

to design systems that minimize the barrier between the human's cognitive model of what they want to accomplish and the computer's understanding of the user's task.

5. HCI is interaction between humans and computers, discuss

HCI deals with design, execution and assessment of computer systems and related phenomena that are for human use and the study of major phenomena surrounding them. HCI is the insertion point of computer science, behavioral sciences, design and other fields of study that show interaction between computer systems and users.

6.What does it mean to understand the users need as a design principle in HCI?

Users need to understand how people work and each visual, interactive element shapes and their experience in order to design user friendly interfaces. The user is placed as the center of the design and hence designs are aimed at increasing usefulness and usability. Design principles dictate the design of an interface using the following golden rules.

An interface should:

Strive for consistency.

Enable frequent user to use shortcuts.

Offer informative feedback.

Offer error prevention and simple error handling.

Design dialogs to yield closure.

Permit easy reversal of actions.

Reduce short-term memory load.

Support internal locus of control.

7.In relation to HCI what do humans do well?

In relation to human computer interaction, human do well in terms of cognitive interaction, that includes; sight, touch, hearing, voice and spatial.

8.Describe what is thought to happen when people forget things

Forgetting is the apparent loss or modification of information already encoded and stored in an individual’s short-term memory or long- term memory. While you are thinking and engaging your memory centers, synapses between neurons become stronger and over time they may weaken, sometimes thoughts have been long forgotten, may be accessed again when you have strong enough information to activate those same group of neurons. Recalling becomes harder, memory traces are overwritten by newer memories and there are problems in transferring short-term into long -term.

9.Which attributes contribute to usability?

Learnability. The user should be able to promptly start performing their tasks with the system.

Efficiency. Once the user has learned the system, a high level of productivity should be possible.

Memorability. The casual user should be able to return to the system after not having used it for some time, without having to relearn everything.

Errors. Users should not make many errors using the system, and if they do, they should be able to easily recover from them.

Satisfaction. Users should like using the system and should be subjectively satisfied when using it. The system should be pleasant to use.