

INTERNET INTERACTIVITY 392

Interactivity Part01

Lecture 5

Purpose

1. to understand the concept of interactivity and interaction
2. to explore how proper interactive principles can be applied to the creation of websites

inter-act

inter

3. Between; among: international.
2. In the midst of; within: intertropical.
3. Mutual; mutually: interrelate.
4. Reciprocal; reciprocally: intermingle

act

1. The process of doing or performing something: the act of thinking.
2. Something done or performed; a deed: a charitable act.

The American Heritage® Dictionary of the English Language, Fourth Edition

> Interactivity - Overview

-Interact

- we interact with each other through conversation, exchange of activities such as socialising, games, work, and being part of a community
- In the computer context, some understand this as using input devices such as keyboard and mouse to interact with tasks and actions. ie. clicking, typing, mouse rollover button, animation etc.
- others think that the multimedia and internet interactivity, such as CD-ROM, flash, javascript, or HTML, or even interaction with computer itself, are not real interactivity at all. (Nathan Shedroff)
- The real interactivity according to the second school of thought is seen in life itself, ie, playing games, telling stories or communal activities.

-This is probably because people understood the word interactivity to be only related to computer activities.

- To understand what interactivity is, we come across two terms, Human-Computer Interaction and Graphical User Interface.
- Human-Computer Interaction(HCI), is "an area of computer science that examines user interfaces and their use." (Marion, 1999). It studies the direct and indirect communications between the user and the computer.
- Graphical User Interface(GUI) has to do with the design of the screen interface on the computer. At times the term Human Computer Interface is being used interchangeably with GUI. This can be confusing, it is better to know the actual definition of both terms and to use them as they are.
- An interface is a point where interactions occur between two systems, processes, subjects, etc. (ie the interface between psychology and education)

> GUI

To define GUI in a clearer manner, it is the interface between the user and the computer through the means of visual mode.

- Alan Kay, one of the pioneers of user interface development, has created a significant foundational work in this area. Much of his GUI features were used later on in the Apple Operating System.
- GUI helped people to perform tasks and input commands on the computer without using text commands.
- It also helps to humanise technology, by using metaphors from real life and implement them into the interface so that we can interact with the computer with a familiar world.
- For example, the computer desktop icons that we have are metaphors taken from our real life desk items. Folders, papers, menus and trash can.
- The Graphic User Interface comes out as a result of the interaction design. GUI is only one of the aspects of interaction design.

> So What is Interaction Design?

- The first school of thought defines this as building a better interaction between the user and the computer to accomplish something through the available hardware devices and the programming aspects of this area.

- The second school of thought defines interaction design as engaging the user and enriching the user's experience.
- The later definition of interaction design looks beyond the behaviour and interaction task with computer itself.
- To bring out the meaning clearer, Brenda Laurel commented,
- "Thinking about interfaces is thinking too small. Designing human-interface experience isn't about building a better desktop. It's about creating imaginary worlds that have special relationship to reality - worlds which we can extend, amplify, and enrich our capabilities to think, feel and act." (Laurel, 1991)

- Jennifer Flemming, the author of Navigation Design shared a similar view,
- "Rather than designing sidebars and menus, you're designing spaces and interactions. In short, you are crafting the user experience.....In the graphical environment of the Web, interface design has to do with constructing visual meaning. The happy marriage of architecture and interface - of logical structure and visual meaning --creates a cohesive user experience."(Flemming, 1998)
 - Another way of understanding interaction design (or interactivity design) is by observing theater or filmmaking.

> Filmmaking as analogy for Interaction Design

- In a way, Interaction design is quite similar to theater and filmmaking. It invites or encourages responses from our audience
- Theater and filmmaking use drama to create impressions that we interact with.
- The actor in the story produces a series of action, and expressions that draw us to response to him or her or to the situation itself.
- Our feelings and thoughts interact with the drama.
- Yet the story in the film is not real in itself, it is acted out.

> Metaphors

- This impression is used in the design of metaphors in GUI to create interactivity.
- For example, when you copy an item into a folder on the Mac OS, the folder animated outward to indicate an opening.

-Real life folder doesn't open this way. The animated outward action is another metaphor used to create an impression of opening or zooming in action to view copied content.

-Interaction design uses this kind of illusion to convey a meaningful interactivity.

-The use of metaphors on the web,

- Rollover button or text to indicate highlight
 - Animation reaction to indicate a response
 - Sound feedback, colour change, depressed buttons, etc
- Think of how metaphors are being used in game design

> Interactivity Applications

-Computer's GUI (eg. Operating Systems)

-Software applications

-Electronic Games - Arcade, Playstation, PC based

-Web TV

-Website

-CD-ROM

> Interaction Design is a process

-Interaction design starts when you are planning for your content through to the stage of doing usability testing.

•Interaction design is not just about making an interactive flash website, or designing multimedia components.

•Throughout the process of design, you are thinking of the best way to fulfil your user's requirements and needs.

•User's requirements and needs are identified through the kind of content you have, and how you can best engage your user through interactivity.

•Maximum interactivity does not always mean the best interactivity. It can be confusing to a new user for example.

•You will need to decide the level of interactivity to use for your website depending on your context.

> **Components of Interactivity**

- Feedback, Control and Options
- Creativity and Productivity
- Communications
 - Immediacy of Response
 - Interruptibility
- Adaptibility

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