# **Interactive Design 1**

**Interaction Design Principles** 

# Interaction Design definition:

- + An approach to designing interactive experiences
- + Time is an organizing principle
- + Concerned with an audience / user / participant's experience flow though time
- + Interactive design is defined by the active role of the user as part of the system (active, not passive)

## **Interactive Design Terms:**

# **Information Design (+ Information Architecture)**

 How the contents of the experience are organized, grouped, and ordered

# **Interface Design**

- User-centered design process
- Clear design for an intuitive experience
- Understandable structure and flow
- Clear organization of information

# **Interactivity Design**

• The ways in which the user will interact with and experience the design/product

# **Usability Testing**

• Test > Modify > Test

# Five Key Design Areas of Interaction Design:

- + Interactivity
- + Information Architecture
- + Time and Motion
- + Narrative and Interface

# 1: Interactivity

Aspects of an experience which allow the audience/user to make choices, effect outcomes, and change conditions.

### 2: Information Architecture

The structure and organization of an experience based on content to be used and goals to be achieved.

# 3: Time (and Motion)

Time-based experience, including sequence, timing, pacing, kinetic "behavior," animated transitions, or complete motion sequences.

### 4: Narrative

The relationship of experiences and story structure, such as beginning-middle-and-end, turning points, resolution, etc.

#### **5: Interface**

The visualization/presentation of the system that allows user participation

# **How To Approch an Interactive Design Process:**

# 1. Define your project. Define your goals.

Later this will allow you to determine how well you have achieved them.

# 2. Who is your audience?

Age range, interests, education, ethnicity, etc.

# 3. What kind of experience are you trying to create?

Active or passive, educating, influencing, entertaining, discovering? Where will it be used?

# **Affordances & Signifiers**

The concept of affordances is that a function must speak for itself, and suggest its own use (i.e. a road affords walking). Signifiers hint at the affordance (i.e. the road's flat surface signals you to walk with your feet).

# **Core Principles of Interaction Design**

(after Donald Norman)

# **Visibility:**

The more visible functions are, the more likely users will be able to know what to do next.

#### Feedback:

Sending back information about what action has been done and what has been accomplished, allowing the person to continue with the activity.

#### **Constraints:**

The design concept of constraining refers to determining ways of restricting the kind of user interaction that can take place at a given moment.

## Mapping:

The relationship between controls and their effects in the world, i.e. the up and down arrows used to represent the up and down movement of the cursor on a compute keyboard.

## **Consistency:**

This refers to designing interfaces to have similar operations and use similar elements for achieving similar tasks.

#### **Affordance:**

Attribute of an object that allows people to know how to use it. To afford means "to give a clue" (Donald Norman, 1988).

Since interaction design communicates messages through "experience," aspects of narrative and storytelling are very relevant.

# **Units for Narrative & Meaning-Making**

# Language

letters join to form words words join to form sentences

= narrative / story

# structure of film/video

# Film / Video

film frames join to form scenes scenes join to form sequences

= narrative / story

# **Units for Narrative & Meaning-Making**

# Film / Video

film frames join to form scenes scenes join to form sequences

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# structure of interfaces **Interactive Experience**

the interface to the experience (content, information architecture, sequence, pacing, time + motion)

= narrative / story