Interactive Design

Audio and Design

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Introduction

Design = Visual design

Too bad interactive design is multidisciplinary

Audio design, game design etc. exist as well

“When I design a product, I think of my program as giving a performance for its user.” - *The Elements of Friendly Software Design by Paul Heckel* (1991)
Interactive Design Paradigm

Music as a paradigm for interactive design:

- Instrument
- Score
- Time
- Performer & audience
- Tempo
- Play etc.
Music Improvisation Background

• Stories and dance
• Baroque continuo & improvisation - ♫1
• Loss of improv
• Recording of audio
• Jazz & rock
• Electroacoustic
• Game audio - ♫2
Video Game Audio History

- Good old days: Coder/Composer - ♫3
- Late 1980's: FM + MIDI Musicians
- Streaming: Pro-tools Musicians
- 2000: Film Composers - ♫4
Video Games Today

In 2001:
US video game sales at $9.3 billion in revenues vs. Hollywood's $8.1 billion

Video games adopting big budgets and management style of film studios

Video games have a strong history of interactive design worthy of study
Degrees of Interactivity

- Performer ↔ audience
- Score ↔ improvisation
- Linear narrative ↔ interactive narrative
- Lean back ↔ lean forward
- Novice ↔ expert
Performer ↔ audience

Performer can be considered to be the user and the audience are other players

and/or

Performer is computer and the user is the (pro) active audience
Score ↔ improvisation

Score = High level of guidance, intent of designer

Improv = High level of play, requires more user skill and engagement

Meaning constructed in combination
Linear Narrative ↔ “Free” Narrative

Degree of flexibility of narrative structure

Provide player with context & meaning
Lean back ↔ lean forward

The level at which the user wishes to be engaged

Linear narrative (TV) - User is audience

Construct narrative (MMOG) - Proactive player
Novice ↔ Expert

Important to allow entry and gratification of play by users of different skill levels

Players “lean forward” as they progress and become more proactive in narrative
Teaching Interactive Design

Interactive design is both content and code

Coding requires different thought processes

Allow students to choose level of control over content
Prototyping

**Level 1:** A first prototype is quickly built, but due to timeline constraints, it awkwardly evolves into final project.

**Level 2:** A prototype is made and later thrown out, but much of the code remains the same. Some view the prototype as a waste of time.

**Level 3:** Multiple iterative prototypes are made rapidly. Final is built from best elements. Entire process is archived for future reference.
Proto-Types

- Demo - Linear Demonstration - one path
- Playable - With several paths - not all
- Pilot - One complete level/episode
Prototyping Tools

- Flash
- Director
- Pure Data/Max
- Java
- HTML
- Quicktime
- Paper
Prototyping : Editing

- Make many sketches
- Edit out non-essential elements
- Strengthen & underline key elements
- Have a friend review
Prototyping : Traps

- Evolve prototype into final project
- Focusing on the easy problems
- Adding too much bells & whistles
Prototyping: Benefits

1. Demonstrate
2. Materials
3. Test
4. Experiment
5. Learn
Demos

Code Zebra

Video Game Audio Prototyping

Interactive Music & Dance
Contact

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