

---

# CGMB534 Game Design

---

*Chapter 2:  
Design Components and Processes*

# Objectives

- Understand the player-centric approach to game design
- Know how the core mechanics and the user interface work together to create gameplay
- Explain how gameplay modes and shell menus make up the structure of a game
- Recognize the three stages of game design and describe the design work in each stage

# Objectives (Cont.)

- Know the kinds of jobs required on a design team
- Know the kinds of documents that a game designer is likely to need and what they are for
- Know the qualities required of a good game designer

# Art, Engineering, or Craft?

- Game design is not purely an art nor an act of pure engineering
- Game design is a craft
  - It requires creativity and planning
  - It can be learned

# The Player-Centric Approach

- Player-centric game design is a philosophy of design in which the designer envisions a representative player
- Two duties in player-centric design:
  - Entertain the representative player
  - Empathize with the representative player
- You are not the representative player
- You are not the player's opponent

# Other Motivations That Influence Design

- **Market-driven games**
  - Games trying to appeal to the maximum number of people, regardless of implications for harmony
- **Designer-driven games**
  - Designer retains all creative control, usually to the detriment of the game
- **Games for a specific license**
  - Content must fit into an existing world
  - Limits creativity

# Other Motivations That Influence Design (Cont.)

- Technology-driven games
  - Games built to show off the hardware running the game
- Art-driven games
  - Games built to show off the artwork
  - Games are visually innovative but seldom good otherwise; comparatively rare

# Integrating for Entertainment

- Integrating characteristics to entertain players requires designer to
  - Have a specific vision
  - Consider the audience's preferences
  - Understand licensing benefits and exploit them to the game's best advantage
  - Understand the capabilities of the technology
  - Consider aesthetic style

# Core Mechanics

- Core mechanics generate the gameplay
  - Define the challenges
  - Define the actions
  - Define the player's effect on the game world
- Core mechanics determine how realistic the game world seems to the player

# User Interface

- Mediates between the core mechanics and the player
  - Interprets player's mouse clicks or button presses
  - Displays the result of the player's input
- Can also be called the presentation layer
  - Presents the game world to the player
  - Includes artwork and audio effects

# User Interface (Cont.)

## ■ Interaction model

- Identifies the way in which the player acts upon the game world; common models include:
  - Avatar-based—through a character in the world
  - Multipresent—the player can act on many places at once

## ■ Perspective

- Player's point of view or camera angle
- First person and third person are the most common perspectives

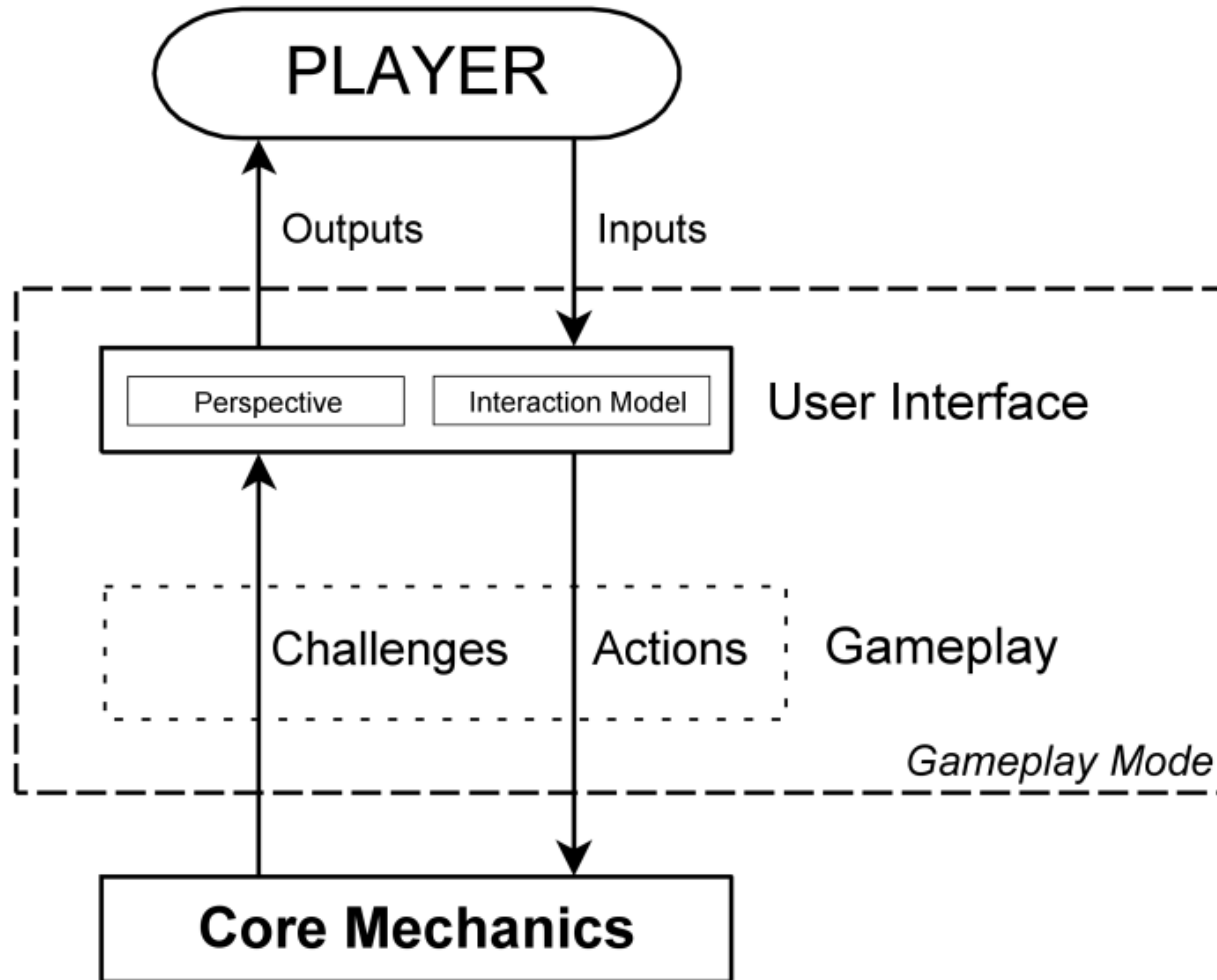
# The Structure of a Video Game

- Structure is composed of
  - Gameplay modes
  - Shell menus

# Gameplay Modes

- Gameplay modes consist of the available gameplay and user interface at a specific time
  - Not all actions are available at all times
  - Available user interface choices should be related to the current actions
- Only one gameplay mode is available at a time

# The Gameplay Mode



# Shell Menus and Screens

- Shell menus are used when the player is NOT in a gameplay mode
  - The player can't affect the game world
  - The player can save or load a game, adjust the hardware, etc.

# Forming the Structure

- Gameplay modes + shell menus = structure
- The game switches between gameplay modes as required:
  - In response to specific player requests
  - In response to events in the game

# Stages of the Design Process

- Concept stage
- Elaboration stage
- Tuning stage
- Note that these are purely stages of *design*, not of *development*; development includes many more factors
  - “Pre-production” and “production” are *development* stages that overlap the design stages

# Concept Stage

- During the concept stage, you
  - Define the fundamental game concept, including the game's genre
  - Define an audience
  - Determine the player's role in the game
  - Think about how to fulfill the player's dream
- Concept should not change after this stage

# Elaboration Stage

- During this stage, you
  - Define the primary game mode
  - Design the protagonist
  - Define the game world
  - Design the core mechanics
  - Create additional modes
  - Create the first playable level
  - Write the story
  - Build, test, and iterate

# Tuning Stage

- You enter the tuning stage at the point when the entire design is locked and no more features may be added to the game
- During the tuning stage, the design team makes small adjustments to levels and core mechanics
- Polishing is a subtractive process—removing imperfections

# Game Design Teams

- A game design team may include
  - Lead Designer
  - Game Designer
  - Level Designer
  - User Interface Designer
  - Writer
  - Art Director
  - Audio Director

# Documenting the Design

- Design documents are used
  - To communicate your ideas clearly to other team members
  - As sales tools
  - As design tools
  - To record the decisions made
- The process of writing a document can turn a vague idea into an explicit plan

# Types of Design Documents

- High concept document
  - Tool to sell your game concept
  - Two to four pages
- Game treatment document
  - Sales tool with more detail than the high concept document
  - Summary of the basic game design

# Types of Design Documents

## (Cont.)

- Character design document
  - Design one character in the game
  - Include moveset
  - Include concept art in different poses
  - Include the character's backstory
- World design document
  - General overview of the game world art
  - Types and locations for sounds
  - Include a map

# Types of Design Documents

## (Cont.)

### ■ Flowboard

- Document the structure—links among gameplay modes and shell menus
- List available menu items and player inputs

### ■ Story and level progression document

- Tell the story
- Record the player's progression through the game

### ■ Game script document

- Specifies rules and core mechanics in enough detail to play the game

# Anatomy of a Game Designer

- Skills most useful for professional game designer
  - Imagination
  - Technical awareness
  - Analytical competence
  - Mathematical competence
  - Aesthetic competence
  - General knowledge and ability to research
  - Writing skills
  - Drawing skills
  - Ability to compromise

# Summary

- You should now understand
  - Player-centric approach to game design
  - Structure of a game
  - Stages of game design and the required documentation
  - Roles and qualities of the design team members