FGD – CHAPTER 2 DESIGNING AND DEVELOPING GAMES

APPROACHES TO DESIGN

WHAT DISCIPLINE?

- Art?

- Engineering?

- It's a craft…it needs both
  - Games are an interactive art form with technical qualities

Art

Engineering
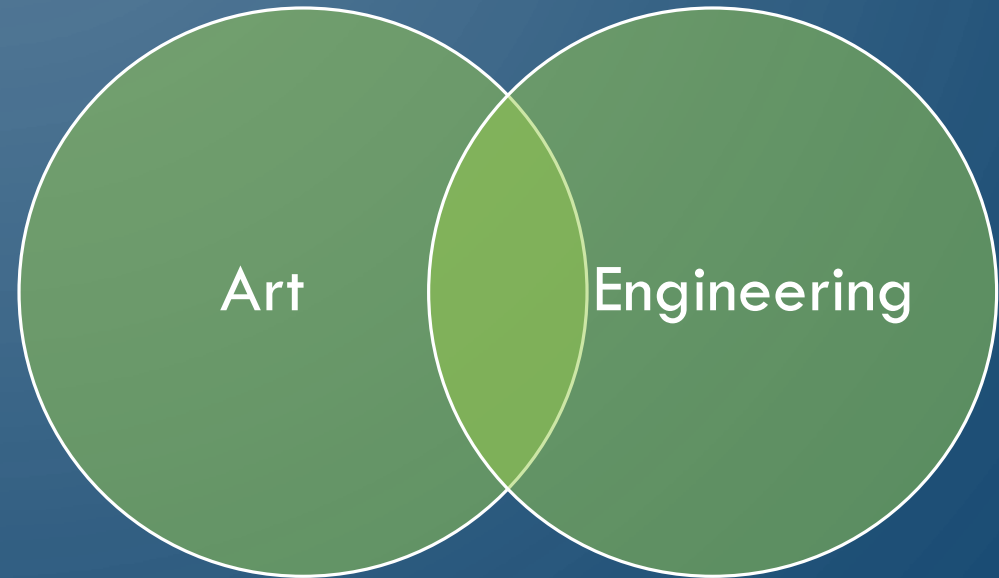
A PLAYER CENTRIC APPROACH

- A philosophy of design in which the designer envinsions a representative player of a game the designer wants to create. Obligations to that player:
    - Duty to entertain
    - Duty to empathize

- Can adapt first duty to serious games

- Think about how a player will react to everything in your game
    - Artwork
    - User interface
    - Gameplay
    - Etc

- Understand what the player wants!

MISCONCEPTIONS

1. I am my own typical player

2. The player is my opponent

- Design rules
  - You are not your player
 - The player is not your opponent

OTHER INFLUENCES TO DESIGN

- Market-driven
  - Creates fad games to make money

- Designer-driven
  - Designer controls everything…doomed to fail (no playtesting or collective wisdom)

- Exploit liscenses
  - Uses intellectual property, e.g., The Lord of the Rings
  - Lucrative, but not usually novel

- Technology-driven
  - Show off aspects of an engine/console

- Art-driven
  - Very rare, seldom good

INTEGRATION IS KEY

- Design with the following in mind
  - A game should be imaginative and coherent, i.e., the designer needs a vision
  - A game should sell well (or be respected)
  - A game should have interesting game play
- Test every feature against your standard
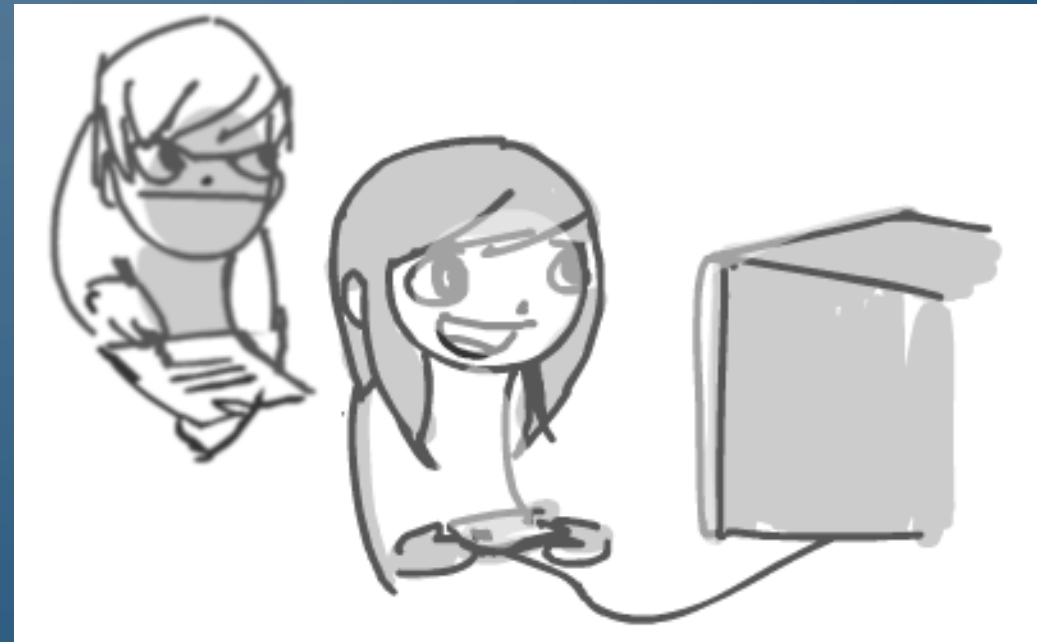
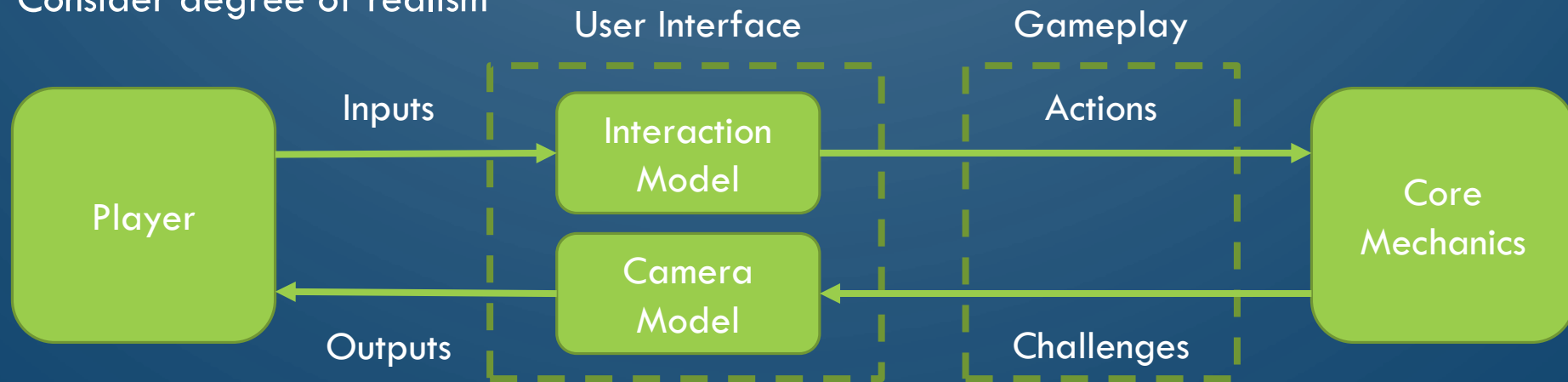# COMPONENTS AND STRUCTURE OF VIDEO GAMES

KEY COMPONENTS OF A GAME

- **Core mechanics**
  - Beyond the general rules to be implemented algorithmically
  - Precise definition of all aspects of the game to generate gameplay (challenges, actions, goals)
 - Consider degree of realism

- **User interface** – mediates between player and core mechanics
  - **Interaction models** – turn input on hardware to actions in game world
  - **Camera models** – view the game world

User Interface   Gameplay

Player → Inputs → Interaction Model → Actions → Core Mechanics

Core Mechanics → Challenges → Camera Model → Outputs → Player

GAME MODES

- Game modes consist of a particular subset of the game's total gameplay that is available at any one time in the game, plus the user interface that presents that subset of the gameplay to the player
 - Only in one at a time
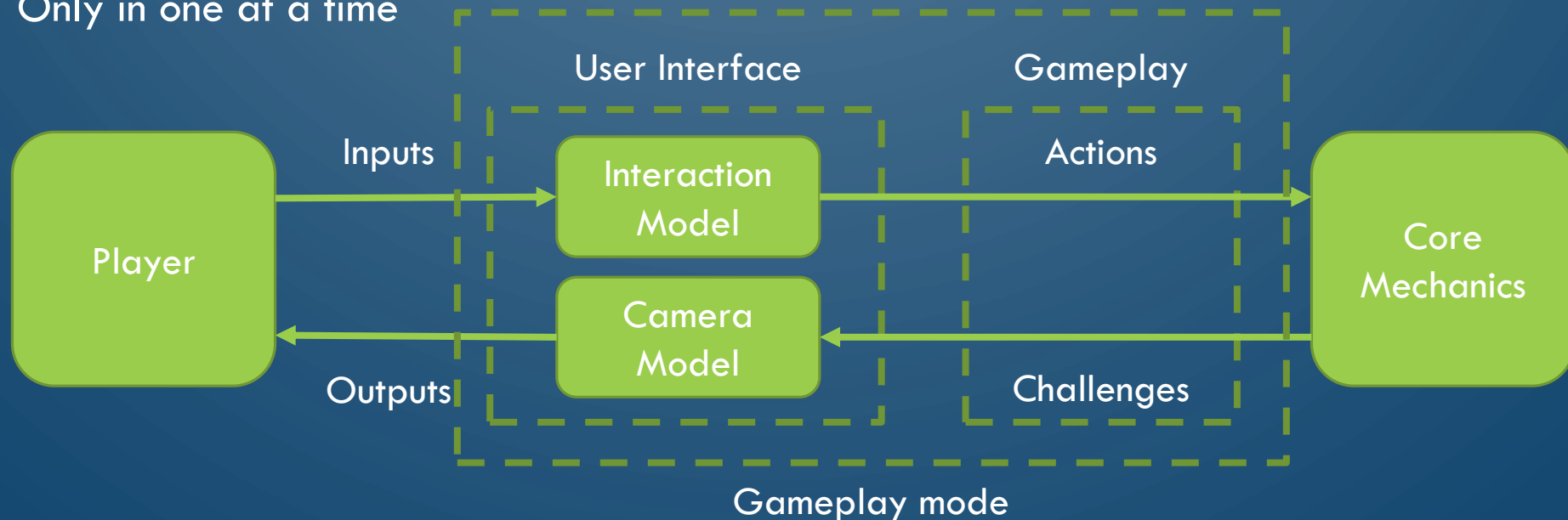
SHELL MENUS AND SCREENS

- Modes that do not affect the game but where a player can make other changes are called **shell menus**
  - Example – reconfiguring the input device

GAME STRUCTURE

- Collectively shell menus and gameplay modes and the relationship between them make up the structure of a game
  - Should be well documented
- A game begins in one state
- Player action or automation changes the state of the game
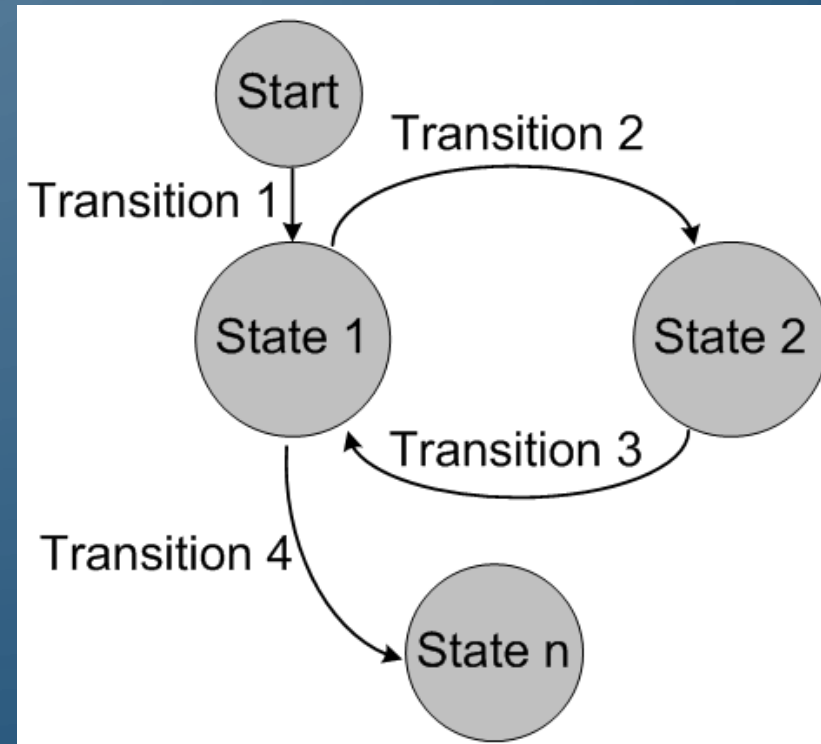
DESIGN PROCESS STAGES

OVERVIEW

- **Concept stage** – design components whose results do not change

- **Elaboration stage** – add most details, new features, and refine through prototyping and playtesting
  - Also referred to as "development"

- **Tuning stage** – no more new features, but small adjustments to polish the game

Concept Stage

Elaboration Stage

Tuning Stage
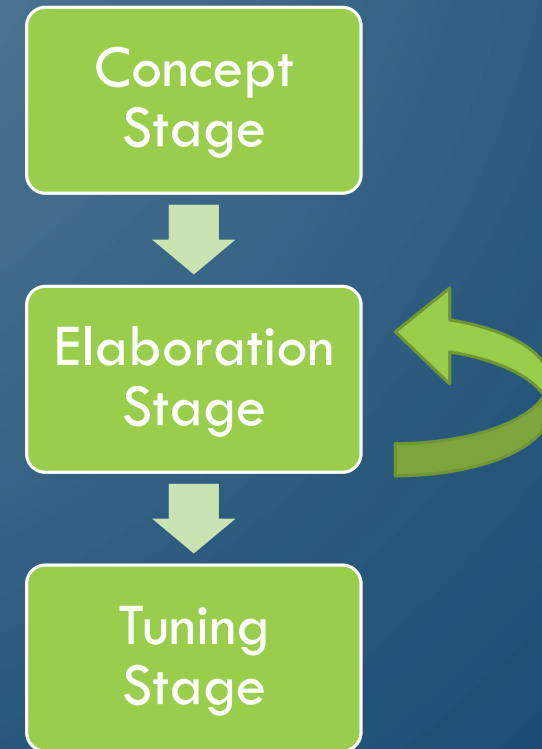
CONCEPT STAGE

- Make core fundamental decisions about the game that last the life of the project

- Design rule – concepts are permanent!

- Get a concept – general idea of how to entertain a player through gameplay
  - More deeply, answer: "why its compelling"

- Define the audience

- Determine the player's role

- "Fulfill the dream" – determine essence of player experience offered

ELABORATION STAGE

- Start making a prototype

- If you get the "green-light" go to full production

PROTOTYPES

- **Software prototypes** – for example using unity to make a game demo

- **Paper prototypes** – make a tabletop version of the game mechanics

- **Physical prototypes** – enact players role in real life

ELABORATION STAGE DETAILS

- Define primary gameplay mode

- Design the protagonist

- Define the game world

- Design the core mechanics

- Create additional game modes

- Design levels

- Write the story

- Build, test, and iterate!

  - Agile development

TUNING STAGE

- No new features, i.e., **feature lock**

- Small adjustments to levels and core mechanics

- Aiming for balance and polish

DESIGN TEAM ROLES

IN SMALL TEAMS PEOPLE TAKE ON MULTIPLE ROLES

ROLES

- Lead designer – oversees overall design responsible for completeness and conherency

- General game designer – generally defines the gameplay

- Mechanics designer – defines and documents how the game actually works (mathematical model)

- Level designer/world builder – constructs individual levels for play (3D modeling and scripting needed)

- UI designer – specialist in usability

- Writer – creates instructional or fictional content for a game

ROLES

- Art director – manages production of all visual assets

- Audio director – manages production of all audio assets

- Lead programmer – manages coding team and technical design of the game

- Producer/project manager – responsible for the commercial aspects of a game

DESIGN DOCUMENTS

WHY PRODUCE DESIGN DOCUMENTS?

- A record of decisions made

- Turn generalities into particulars

- Communicate design intentions to the team for their planning

- Basis for contractual obligation

- Funding agencies want them as evidence you are competent

TYPES OF DESIGN DOCUMENTS

- High concept
  - Not to build the game from
  - Sketch of the ideas to "get a meeting"

- Game treatment
  - Broad outline to someone who is interested and wants to hear more
  - An "ad" to a potential publisher
  - Includes business and development details.

- Character design
  - Records design of one character in the game
  - Shows appearance and moveset
  - Includes concept art, biosketch, etc

- World design
  - Basis to build art and audio, i.e., the "feel"
  - General overview of what the world contains
  - Includes a map
  - Level designers use this to create content

- User interface design
  - Document UI for each game mode and shell screen
  - Aesthetic, technical, and usability considerations

- Flowboard
  - Documents game modes/shell menus and transitions between them
  - Includes details of game modes/shell menus and challenges

TYPES OF DESIGN DOCUMENTS

- Story and level progression
  - Optional
  - Story/level progression from beginning to end
  - Describes how the player experiences the story

- On-screen text and audio dialogue script
  - Used to localize for foreign markets

- The game script
  - Details rules and core mechanics of the game
  - Should enable play without a computer
  - Includes technical machine specifications

A COMMENT ON YOUR DESIGN DOCUMENT

- A little of everything in one document
- Include
  - Concept
  - Business
  - Characters
  - World
  - UI
  - Flowboard
  - Story/level progression
  - Game script

- Do not need the on-screen text/audio dialogue script

QUALITIES OF IDEAL DESIGNERS

REQUIRES TALENT AND SKILL – TALENT IS INNATE, SKILL IS LEARNED

CHARACTERISTICS

- Imagination
  - Visual + auditory
  - Dramatic
  - Conceptual
  - Lateral thinking
  - Deduction
- Technical awareness
- Analytical competence

- Mathematical competence
- Aesthetic competence
- General knowledge
- Ability to research
- Writing skills
  - Technical
  - Creative (fictional + dialogue)
- Drawing skills
- Ability to synthesize
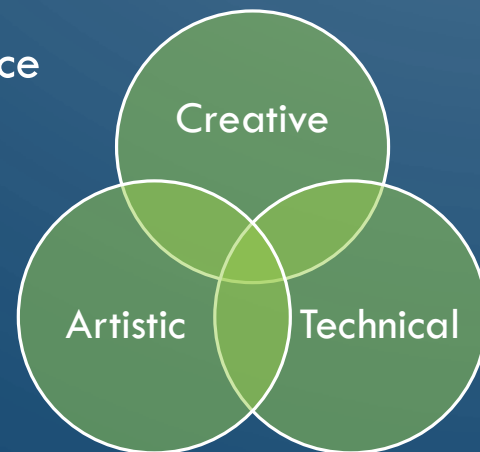
SUMMARY

- Explored the approaches to design, the design process, and design documents

- Examined the structure and components of video game design

- Defined designer team roles and designer characteristics