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# CGMB534 Game Design

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## *Chapter 13: Action Games*

# Objectives

- Identify the qualities that set action games apart from other genres
- Recognize the distinct subgenres of action games and their particular features
- Use the characteristic features of action games, such as levels, lives, and powerups, to design games of your own
- Know the design limitations imposed by placing the player under time pressure

# What Are Action Games?

- An action game is one in which the majority of challenges presented are tests of the player's physical skills
- Puzzle-solving, tactical conflict, and exploration challenges are often present as well
- Fastest action games are twitch games

# Action Game Subgenres

## ■ Shooters

- Most familiar and popular subgenre
- Players use a ranged weapon
- 2D shooters
  - Top-down or side-view perspective
  - Players are under constant attack so shoot everything
  - Unlimited ammunition
  - Unrealistic physics

# Action Game Subgenres (Cont.)

- Shooters (cont.)

- 3D shooters

- Cutting edge of game hardware
    - Physics are more realistic than 2D shooters
    - Can be first-person or third-person perspective

# Action Game Subgenres (Cont.)

## ■ Platform games

- Cartoonish games in which an avatar moves through a vertically exaggerated environment, jumping on and off platforms
- Most actions are jumps
- Highly unrealistic physics
- Most 2D side-scrolling games with humanoid avatar are platform games
- *Super Mario Bros.* is the classic example

# Action Game Subgenres (Cont.)

## ■ Fighting games

- Physical challenge tests reaction time and timing
- Simulate hand-to-hand combat; may use local effect weapon such as a sword
- Actions include maneuvering the fighter, attacking, and defending
- Combo moves are common
- Play is largely 2D in the plane of the video screen

# Action Game Subgenres (Cont.)

- Fast puzzle games
  - Require player to solve problems quickly
  - Simple, abstract, limited control set
  - *Tetris* is the archetypal fast puzzle game
  - Casual gamers enjoy this subgenre
  - Ideal for handheld devices and cell phones

# Action Game Subgenres (Cont.)

- Action-adventure
  - Hybrid combines action and adventure
  - Games include physical challenge, story, inventory, and dialog
- Dance and rhythm games
  - Challenges player's sense of rhythm
  - Press buttons to make the avatar dance
    - Specialized hardware common: dance mat, conga drums, maracas
  - Popular with girls—less pointless violence

# Action Game Subgenres (Cont.)

- Other action games
  - No shooting, hand-to-hand fighting, or abstract puzzle-solving
  - Use skills such as maneuvering and path planning

# Game Features

## ■ Progression

- Levels usually completed in linear sequence
  - Levels often grouped by theme and end with a boss
  - Fixed challenges are easier to build, but repetitious
- If killed, avatars reappear at a checkpoint
- Level exits, level warps, and teleporters
  - Level exits lead to the next level
  - Level warps exit the level and jump ahead several levels
  - Teleporter jumps within the same level

# Game Features (Cont.)

## ■ Challenges

- Avatars typically faced by three kinds of problems
  - Passive obstacle impedes movement without threat (wall)
  - Stationary danger attacks approaching avatar (electric fence)
  - Active dangers attack and move around

# Game Features (Cont.)

- Challenges (cont.)
  - Waves—enemies attack in groups
  - The big boss guards the end of the themed level
  - Wildcard enemies break up the predictability
  - Locked doors partition levels and control progress
  - Monster generators or spawn points cause new enemies to appear

# Game Features (Cont.)

## ■ Player actions

- Routine actions include maneuvering an avatar, aiming and shooting, collecting and selecting, manipulating objects, and fighting moves
- Smart bomb clears enemies from the immediate area
- Hyperspace escape immediately moves the player at the risk of unexpectedly entering a dangerous area

# Game Features (Cont.)

- Core mechanics are simple and obvious
  - Lives provide several reprieves from death
  - Energy is replenished by collectibles or powerups
  - Powerups increase strength
  - Collectibles are common but not required
    - Increase the score
    - Unlock secret levels or cause special bonus events

# Game Features (Cont.)

- Core mechanics (cont.)
  - Timer counts down time to events and catastrophes or the amount of time left to finish the level
  - Score indicates progress

# Game Features (Cont.)

- Victory conditions
  - Only arcade games don't have victory conditions
  - Including a structured story means the game will end
- Interaction model
  - Avatar is most common
  - Puzzle manipulation model (*Tetris*) or omnipresent model (*Lemmings*) also used

# Game Features (Cont.)

## ■ Perspective

- 2D perspectives
  - Include side-scrolling and top-scrolling
  - Continuous, variable, and parallax scrolling
- 3D first person is tied to the avatar with a limited field of view
- 3D third person lets the player see the avatar

# Game Features (Cont.)

## ■ Perspective (cont.)

### □ Gameplay implications of 2D and 3D

- In 3D, it is difficult to tell the speed or distance of objects that come directly toward the player
- 3D games use the environment to present challenges
- In 3D, enemies can hide and sneak up on the avatar

### □ Context-sensitive perspective

- Camera moves depending on the circumstances
- Not a good perspective for fast action games
  - Sudden changes of camera position are disorienting during high-speed action

# Game Features (Cont.)

- User interface features
  - Keep it onscreen
  - Use indicators rather than numbers or text
  - Maps and mini-maps can be shown as transparent overlays
  - Use color to identify characters and objects
  - Controls should be as simple as possible

# Summary

- You should now understand
  - How to identify an action game
  - How to recognize action game subgenres
  - How to identify and use characteristics of an action game
  - How to describe design limitations of action games