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# IMGD 1001: Fun and Games

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## Outline

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- What is a Game?
- Genres
- What Makes a Good Game?

## What is a Game? (1 of 3)

- ❑ Movie?
  - No *interaction*, outcome fixed
- ❑ Toy?
  - No *goal*, but still fun!
  - Players can develop own goals
- ❑ Puzzle?
  - strategy and outcome is the *same* each time

"A computer game is a software program in which one or more players make decisions through the control of game objects and resources, in pursuit of a goal."

## What is a Game (2 of 3)

- ❑ A Computer Game is a *Software Program*
  - Not a board game or sports
  - Consider: chess vs. soccer vs. Warcraft
    - ❑ Ask: What do you lose? What do you gain?
  - Lose: 1) *physical pieces*, 2) *social interaction*
  - Gain: 1) *real-time*, 2) *more immersive*, 3) *more complexity*
- ❑ A Computer Game involves *Players*
  - *Think* about your audience; the game is not for *you* but for *them*.
  - Don't just think about your story or the graphics or the interface, but consider the *players*.

## What is a Game (3 of 3)

- Playing a Game is About Making Decisions
  - Ex: what weapon to use, what resource to build
  - Can be frustrating if decision does not matter
  - Want good *gameplay* (major topic later)
- Playing a Game is About Control
  - Player wants to impact outcome
  - Uncontrolled sequences can still happen, but should be sparing and make logical
- A Game Needs a Goal
  - Ex: Defeat Ganandorf in Zelda
  - Long games may have sub-goals
  - Ex: recover Triforce first, then Sword of Power
  - Without game goals, a player develops his/her own (a toy)



## What a Game is *Not* (1 of 2)

- *A bunch of cool features*
  - Necessary, but not sufficient
  - May even detract, if not careful, by concentrating on features, not game
- *A lot of fancy graphics*
  - Games need graphics just as hit movie needs special effects, but neither will save weak idea
  - Game must work without fancy graphics
  - Suggestion: Should be fun with simple objects

"When a designer is asked how his game is going to make a difference, I hope he ... talks about gameplay, fun and creativity – as opposed to an answer that simply focuses on how good it looks." – Sid Meier (*Civilizations, Railroad Tycoon, Pirates*)

## What a Game is *Not* (2 of 2)

- *A series of puzzles*
  - Most games have them, but they are not the game
- *An intriguing story*
  - Good story encourages immersion, but will mean little without good gameplay
  - Example: *Baldur's Gate* is a linear story.
  - Going wrong way gets you killed.
  - Not interactive: interaction in world all leads to same end.

## Games are Not Everything

- Most important
  - *Is it fun, compelling, engaging?*
- Computers are good at interactivity
  - Allow for interactive fun
- Examples:
  - *SimCity*
    - Very compelling, but mostly no goals.
    - More of toy than a game, but still fun.
  - *Grim Fandango*
    - Good visuals, story, etc., but need to do puzzles to proceed
    - Could have skipped to just watch story
    - Would still have been *fun* without the gameplay.

## Outline

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- What is a Game?
- Genres (next)
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## Group Game: Game Types

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- Break into groups based on month of birth  
(combine so at least 2 in each group)
- Spread out so can talk without others hearing
- Brainstorm all game genres you can think of
  - Provide an example of each!
- Round-robin by group, say one genre on list
  - What other group has this? Show hands
  - If no-one else has it, you get a point!
  - Everyone, decide distinguishing features
- Team with most genres not on anyone else's list, wins!

## Game Types

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- What are some types of games?
- What separates them from others?

## Arcade Games

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- Reaction and speed are the most important aspects of the game
  - Examples: scrolling shooters, maze games like *Pacman*, paddle games like *Breakout*, *Pong*
- Relatively easy to make
- Normally 2D graphics
- Good starting point for first game

## Puzzle Games

- Clever thinking is the most important aspect
  - Many maze games are based on puzzle solving, rather than on reaction time
- Other examples include board games and sliding puzzles
- Normally 2-dimensional
- Relatively easy to create
  - Except when played against a computer opponent
  - Artificial Intelligence can be harder
    - Ex: How to program the computer to play chess?

## Role Playing Games

- Steer a character through a difficult world
  - Examples are *Diablo* and *Baldur's Gate*
- Development of character to learn new skills, becoming more powerful, and finding additional and better weapons
- Opponents become more powerful as well
- Can create 2D or 3D
- Generally harder to make because must create the mechanism of character development
- Also normally need large world
- Good level design is crucial

## Strategy Games

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- Real-time (RTS) or turn-based
- Player only indirectly controls the character
  - Tactics less important than Strategy
- Examples include *Age of Empires*, *Warcraft III...*
  - Also, usually "God Games", such as *Black & White*
- Generally take a lot of time to create
  - Require many different game objects, each with animated images and specific behavior

## Adventure Games

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- Game is about adventure and exploration
  - Story line is often crucial
- Can be 2D or 3D
- Actions easy (just move)
- Difficulty is in making exploration/adventure interesting
  - Interesting, funny, and surprising story line
  - Corresponding artwork
- Artists' role is crucial

## First-Person Shooters

- ❑ 3D version of many arcade-style games (move and shoot)
- ❑ Emphasis is on fast-paced action and reaction speed, not on cleverness and puzzle solving
- ❑ Many examples: *Doom, Quake, ...*
- ❑ Need to be 3D
- ❑ Relatively difficult to create because of models

## Third-Person Action/Platformer

- ❑ Player directly controls a game character (avatar) through a hostile world
  - *Tomb Raider, Prince of Persia, Onimusha*
- ❑ Often, not much emphasis on character development
- ❑ Fast action and discovering the game world
- ❑ Some have story line, other adventure game aspects
- ❑ Can be 2D or 3D
- ❑ Can sometimes be created easily

## Sports Games

- Real-life sport, made virtual
- Ideas, rules in place
- Making realistic, challenging, fun like sport can be difficult

## Racing Games

- Really, special type of sports game
  - But pervasive enough to get own category
- Drive a vehicle, as fast as possible, or sometimes for exploration, or combat
- Either realistic...
  - *Formula 1* or *Grand Turismo*
- ...or focused on fun (arcade)
  - *Midtown Madness* or *Ridge Racer*
- Both 2D or 3D

## Simulators

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- Try for realistic representation
  - Ex: flight simulators, *Trainz*
- Other simulations include world simulation
  - Ex: *SimCity* or *SimEarth*
- Relatively difficult to create since getting details right a challenge

## Party Games

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- Variety of types
  - Ex: *Mario Party*, *DDR*, *Karaoke*, *Guitar Hero*
- Social aspects important with participants in the same space
- Allow for rapid change of turns
- Allow for disparate abilities (beginners and experts, both have fun)

## Educational Games

- Entertainment games are great at teaching...how to play the game!
- Educational games are designed to teach player knowledge or skill that is valuable outside the game
  - Ex: math, reading, problem solving

## What Games are Played?

- |                    |                         |
|--------------------|-------------------------|
| □ Console gamers:  | □ PC gamers:            |
| ■ Action (30%)     | ■ Strategy (30%)        |
| ■ Sports (20%)     | ■ Children's Ent. (15%) |
| ■ Racing (15%)     | ■ Shooters (15%)        |
| ■ RPG (10%)        | ■ Family Ent. (10%)     |
| ■ Fighting (5%)    | ■ RPG (10%)             |
| ■ Family Ent. (5%) | ■ Sports (5%)           |
| ■ Shooters (5%)    | ■ Racing (5%)           |
|                    | ■ Adventure (5%)        |
|                    | ■ Simulation (5%)       |

## What about Online Games?

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- Grew from 38 million (1999) to 68 million (2003)
- Not just for PC gamers anymore
- 24% of revenues will come from online by 2010  
(Forrester Research)
- Video gamers (2004)
  - 78% have access to the Internet
  - 44% play games online
  - Spend 12.8 hours online per week
  - Spend 6.5 hours playing games online

## Outline

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- What is a Game?
- Genres
- What Makes a Good Game? (next)

## What Makes a Good Game?

- "A great game is a *series* of *interesting* and *meaningful choices made by the player* in pursuit of a *clear* and *compelling goal*."  
- Sid Meier

- "Natural Funativity"
  - Survival-skill training
  - Need to have player develop a set of skills with increasing levels of difficulty
  - Putting them to the test = mission, quest, level, etc.
  - Prize at the end (or in the middle)

Chapter 2.1, *Introduction to Game Development*

## Structure of Games

- Movies have linear structure
  - No choice by viewer
- Games must provide "interesting and meaningful choices"
  - Otherwise, user is not in control
- Random death is frustrating!

Chapter 2.1, *Introduction to Game Development*

# Convexity of Game Play

□ Need to provide choices

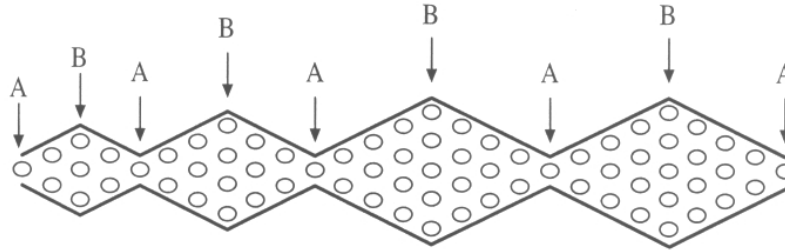
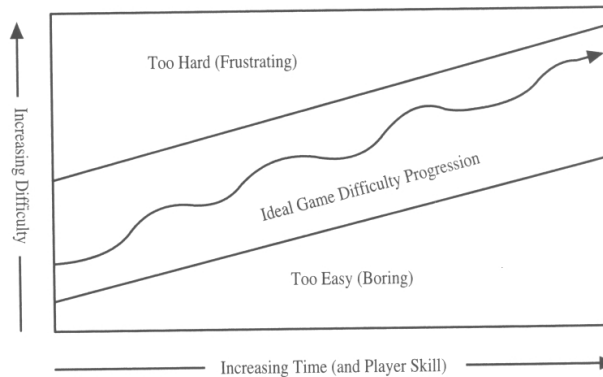


FIGURE 2.1.6 A series of convexities.

# Flow

□ Getting the balance right is the key to success



M. Csikszentmihalyi, "Flow, The Psychology of Optimal Experience"

FIGURE 2.1.8 A better flow.

## Convexity + Flow

- Utilizing both can lead to a great game

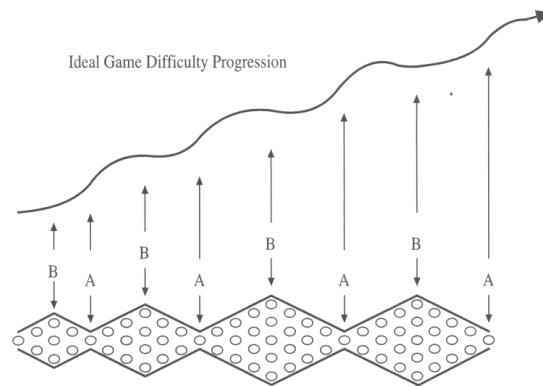


FIGURE 2.1.9 Better flowing through convexities.

## Other Thoughts

- Theatre:
  - Show, Don't Tell
- Games
  - Do, Don't Show
- Hal Barwood on Cut Scenes
  - Cut, edit, and cut some more until the writing is just as brief and concise as possible. At that point, the scene is probably about twice as long as it should be.

## So, You Want to be a Game Designer?

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- Break into groups by favorite genre
- Decide on a game idea
- How will you:
  - Define goal(s)
  - Provide choices
  - Create and maintain player interest