Lecture 2:
Game Design Process
& considerations

From Idea to Game Concept

- A game concept is a *description with enough detail to discuss it as a commercial product*
- A game concept should include:

  - High concept statement (story)

  - Player's role in the game

  - Genre

  - Target audience

  - Short description of the game world

  - Key characters,

Classic Game Genres

- **Action games**— physical challenges

- **Strategy games**— strategic, tactical challenges

- **Real–world simulations** (sports games and vehicle simulations) —physical and tactical challenges

  - **Adventure games—exploration and puzzle-solving challenges**

  - **Puzzle games—logic and conceptual challenges**

Hybrid Games

▸ Games that cross genres

▸ The most successful hybrid is the action-adventure

  ◦ Include a story and puzzles that give them some of the quality of adventure games

Definition of terms

▸ Story – The story is what happens, the flow of the game that can be separated from the game mechanics and retold as a narrative.

▸ Character – Characters are the actors (or in the case of player characters) who exist in the game world and perform the in-game actions.

Setting

The setting defines the world that the action of the game takes place in, including character races, languages, laws of physics (do you have spells, blasters, or both?), and everything else necessary to define the game world.

Proposal Template

Additional elements

Back story

▸ Backstory is the history leading up to the events of the game, the explanation of what has produced the situation that will be played through.

▸ Related to setting, it can be defined as "who did what to whom, and what does the player have to do in order to fix it?"

Cut Scenes

- Cut scenes refer to in-game movies—sections of noninteractive footage that the player watches.

- Cut scenes refer to events or conversations that the player sits back and watches with (usually) no interaction.

In-Game Artifacts

▸ In-game artifacts are objects in the game world that serve to advance the narrative.

▸ Frequently, in-game artifacts take the form of documents like—diaries, letters, books, and the like. `

▸ By reading these, the player gains valuable information about what's going on and the world the player's moving through.

Design Elements

Reminder: Aspects of a Game

♉ **Players**: How do humans affect the game?

♉ **Goals**: What is the player trying to do?

♉ **Rules**: How can the player achieve the goal?

♉ **Challenges**: What obstacles block the goal?

Formal Design Elements

℧ **Players**: Player Mode Sketches

℧ **Goals**: Objectives

℧ **Rules**: Actions and Interactions

℧ **Challenges**: Obstacles and Opponents

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Player Mode Sketches

- ♉ Game may have several *player modes*
  - ♉ ***Ways in which player interacts with a game***
  - ♉ **Example**: Inventory screen vs. contest screen

- ♉ You should *storyboard* [1] all of your modes
  - ♉ Sketches of each of the major player modes
  - ♉ Illustrate how player interacts with game

https://www.alexandercowan.com/storyboarding-tutorial/
http://www.floobynooby.com/comp1.html
https://www.studiobinder.com/blog/storyboard-examples-film/#Video-Game-Storyboards

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Dragon Age: Inventory Mode

Dragon Age: Standard Mode

Player Mode Sketch

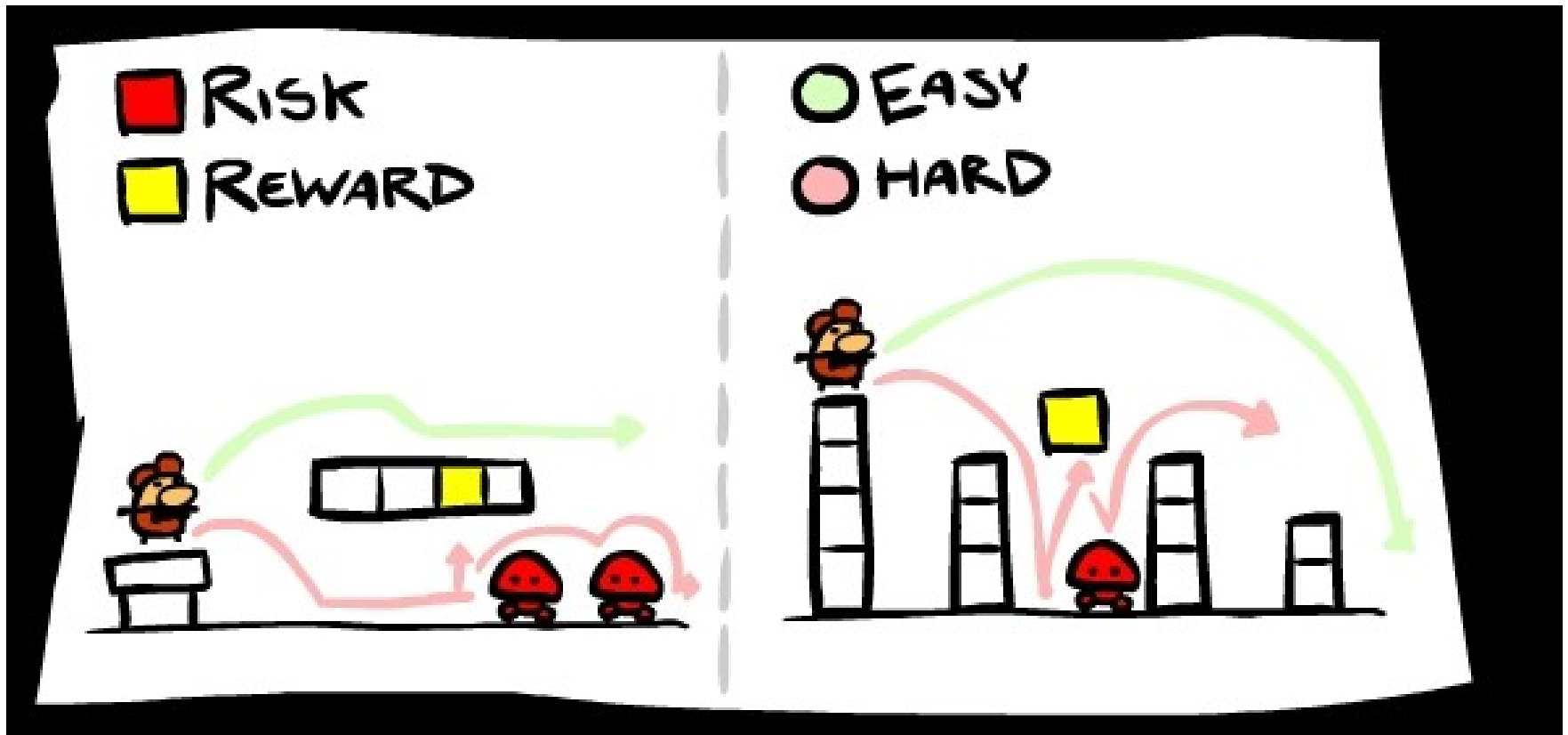Indicating Action

Completed Game

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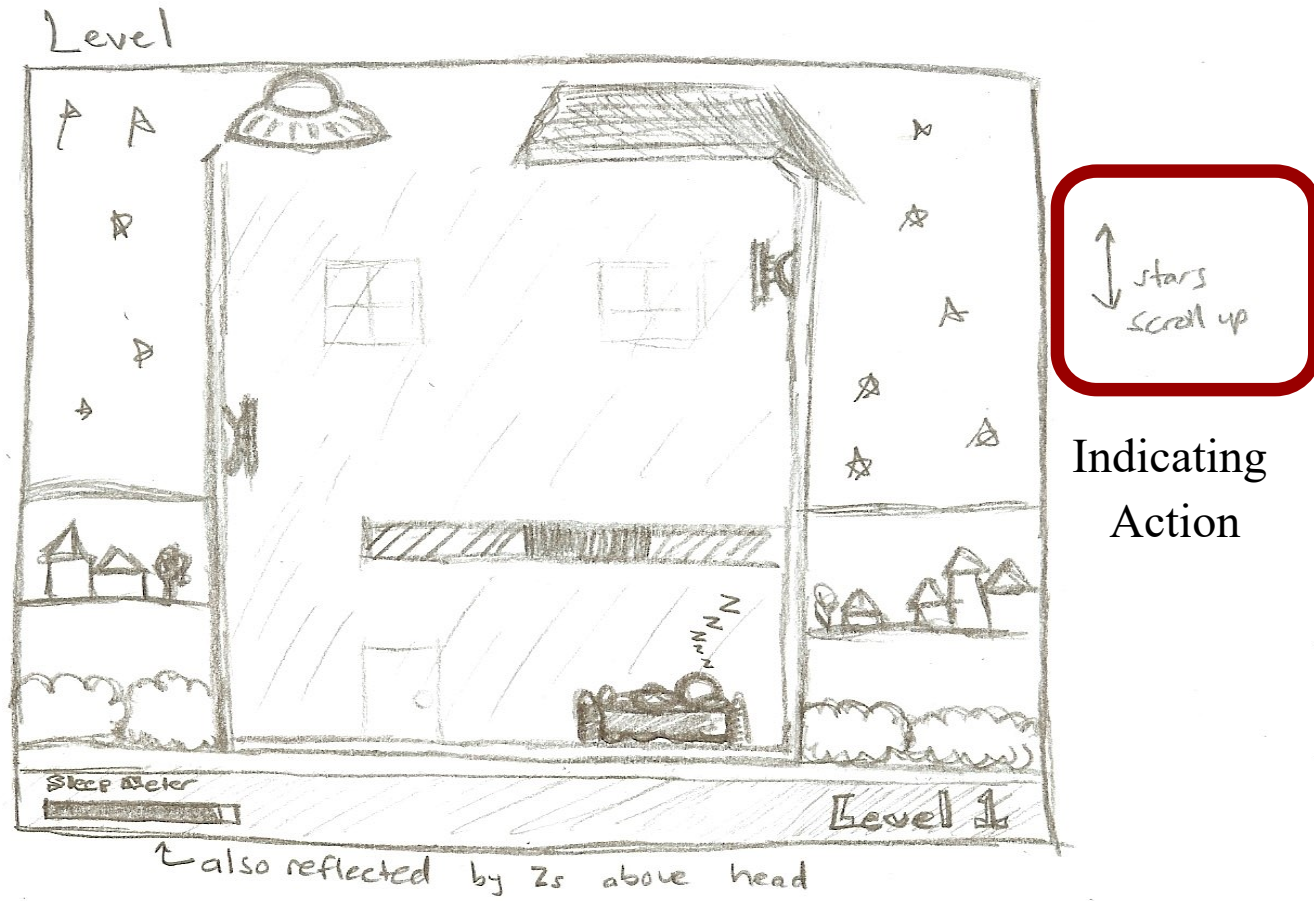
Diagramming Action

Objectives

ŏ **Primary** objectives reflect vision

    ŏ Wish fulfillment: I want to _____

    ŏ Help player realize the dream

Some Objective Categories

- **Capture**: take or destroy something of value
    - Includes "kill all enemies of type X"

- **Race**: reach a goal within time

- **Chase**: catch or escape an opponent
    - Race with a dynamic goal/destination

- **Rescue/Escape**: Get someone to safety

- **Exploration**: Locate something in game world

Some Objective Categories

ŏ **Solution**: solve a problem or puzzle

ŏ **Alignment**: arrange in a specific configuration

   ŏ Color matching games!

ŏ **Construction**: build, maintain, manage objects

Actions

- **Verbs** that describe what the player can **do**
  - Walk
  - Run
  - Jump
  - Shoot

- Does not need to be attached to an avatar
  - Build
  - Swap
  - Rotate

Actions

- **Verbs** that describe what the player can **do**
  - Walk   (left or right) (walk, but faster!)
  - Run   (up; jump/run for left or right)
  - Jump   (left or right)
  - Shoot

  } Action Platformer

- Does not need to be attached to an avatar
  - Build
  - Swap
  - Rotate

Primary Actions

- ☿ **Example**: Platformers
  - ☿ **Goal**: reach exit location
  - ☿ Only need movement verbs
  - ☿ Killing enemies is *optional*

Interactions

- Not a *direct* action of player
  - Outcome of the **game state**
- **Example**: collisions
  - Accidental or player forced
  - May be bad (take damage)
  - May be good (gain power-up)
- **Other Examples**:
  - Resource acquisition

Game Mechanics

Game mechanic

- Relationship between verbs and interactions
- Often call this relationship the "rules"

Example:

- Verbs: Flap; go left or right
- Interaction: Collision with opponent
- Rule: If hit opponent, lower player dies

Combining Actions

♉ Verbs can combine in interesting ways

♉ Run and jump in a platformer

♉ Strafing fire in a shooter

♉ Typical result of the interactions

♉ Each verb interacts with environment in different way

♉ Combination of two give extra feature for "free"

Challenges

♉ **Obstacles**

- ♉ Prevent progress towards goal
- ♉ Have to be "overcome"

♉ **Opponents**

- ♉ Players with their own goals
- ♉ May or may not need to be overcome

Challenges: Resources

- *Numeric* quantities are often called **resources**
  - **Examples** (player): bombs, health points
- *Symbolic* values are "yes-or-no" quantities
  - Used for "lock-and-key" challenges

Putting It All Together

- Start with your **vision**
  - I want to _____
  - This creates setting and player goals

- Create a (partial) list of the following:
  - **Objectives**
  - **Actions**
  - **Interactions**
  - **Challenges**

  } Sketch **player modes** to show them in action

Questions?