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Lecture 1:

Nature of Games

Brainstorming Exercise

Nature of Games

Definitions of Games

- Adams: *Fundamentals of Game Design*
  A **game** is a form of *interactive entertainment* where *players* must overcome *challenges,* by taking actions that are governed by *rules,* in order to meet a *victory condition*.

- Salen & Zimmerman: *Rules of Play*
  A **game** is a *system* in which *players* engage in *artificial conflict*, defined by *rules,* that results in a *quantifiable outcome*.

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- Salen ...
  A **gam...** ...
  artific... ...s in a *quantifiable outcome*.

- Players
- Challenges
- Rules
- Goals

Design Decisions

- **Players**
  - How many players are there at a time?
  - Who or what is the player in the world?
  - Specifies a notion of *identity*

- **Goals**
  - What is the player trying to achieve?
  - Defined by the game or by the player?
  - Specifies the player *focus*

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Design Decisions

- **Rules**
  - How does the player effect the world?
  - How does the player learn the rules?
  - Specifies the *boundaries* of the game

- **Challenges**
  - What obstacles must the player overcome?
  - Is there more than one way to overcome them?
  - Specifies the fundamental *gameplay*

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(Other) Design Decisions

- **Game Modes**
  - How are the challenges put together?
  - What is the interaction *context*?

- **Setting**
  - What is the nature of the *game world*?
  - What is the *perspective* (e.g. side-scroller, 3D, etc.)?

- **Story**
  - What *narrative* will the player experience?
  - How is it connected to gameplay?

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Play Length

- How short a game can I play and have fun?
  - Least meaningful unit of play
  - **Console**: 30 minutes+ is acceptable
  - **Mobile**: No more than a minute

- **Casual** often means short play units
  - But can have sophisticated gameplay!
  - **Example**: *Plants vs. Zombies*

- But **casual** vs **core** is a bad distinction

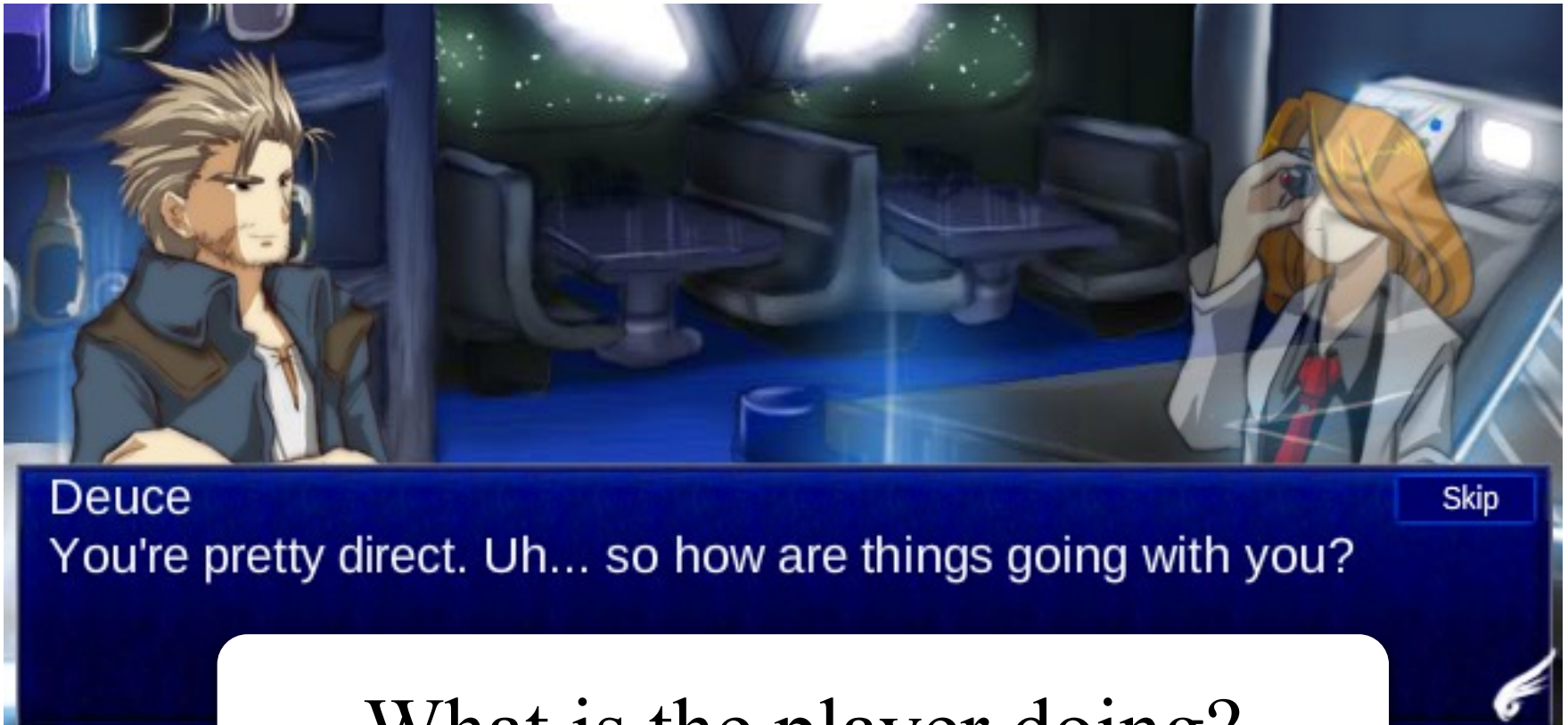Nature of Games

Dueling Design Philosophies

Narrative

- Games are a *story medium*
  - Focuses on storytelling
  - Traditional narrative structure

- **Advantages**:
  - Emotionally compelling
  - Strong artistic vision

- **Disadvantages**:
  - Author *voice* over player voice
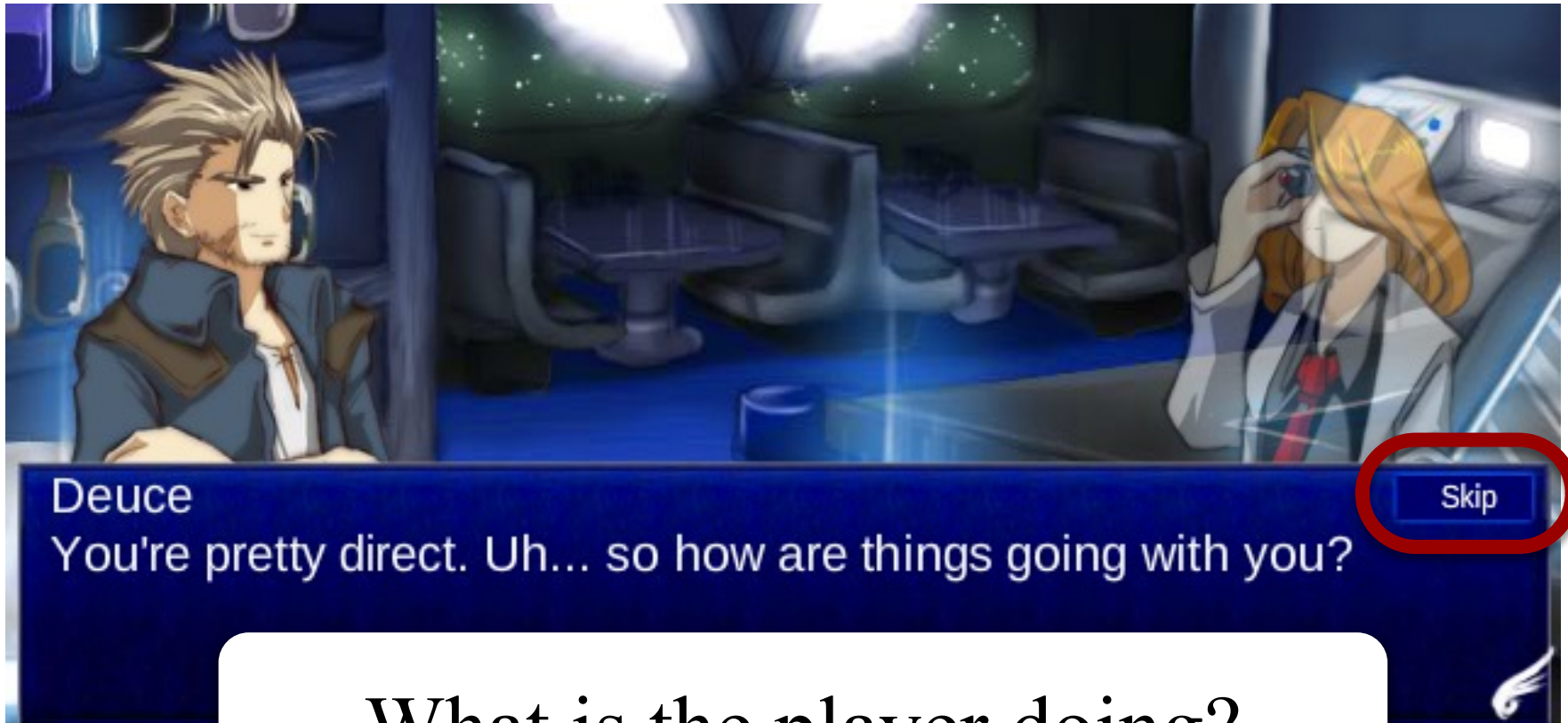 - Poorly defined mechanics

Ludic

- Games are about *mechanics*
  - Focus on gameplay, rules
  - Storytelling is minimal

- **Advantages**:
  - Focus on player *agency*
  - Tight, well-defined gameplay

- **Disadvantages**:
  - Lack of player motivation
  - Hard to distinguish yourself

The Dangers of Pure Story

Deuce
You're pretty direct. Uh... so how are things going with you?

Skip

What is the player doing?

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The Dangers of Pure Story

What is the player doing?

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But Ludic is Not Everything

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But Ludic is Not Everything

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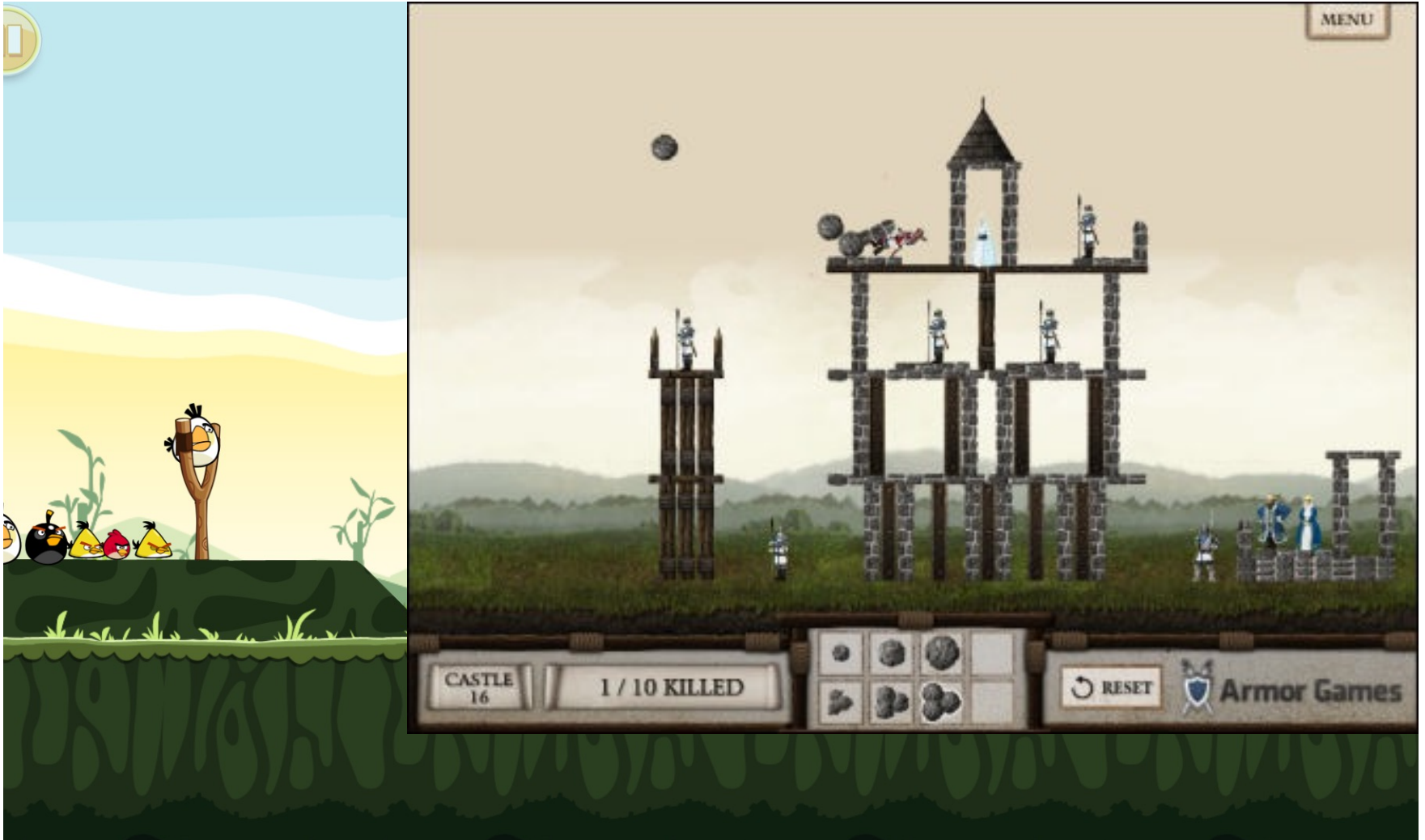
Game Design Must Be a Balance

Motivate the Player

- Needs a story *framework*
  - Setting to work within
  - Strong sense of identity
  - Challenges with context

Empower the Player

- Drama from player *actions*
  - Define what the player can do
  - Challenges reward or punish
  - Freedom in achieving goals

Games are **dramatic**, but they have their own **conventions**.

But This Course Will Be Ludic-Centric

- Will focus on **design tools**
  - Techniques that we can train
  - Using them requires practice
  - Implementing them has technical challenges

- But design is much more
  - You use tools to create art
  - Can only learn by doing
  - With critiques from us
  - Like a studio course

- Keeping balance is up to you

Base to Hit Table

Range		To Hit	
Short		3	
Medium		7	
Long		14	

If a 1 is rolled for a weapon that has an event
occur on the normal 2d6 roll of "2" (such as a jam) , re-roll.
On a re-roll result of 10 or less, the weapon event occurs.

Hit Location Table

1d20	Left	Front / Rear	Right	
1	Left Leg	Right Arm	Right Leg	3
2	Left Arm	Right Arm	Right Arm	4
3	Left Arm	Right Arm	Right Arm	4
4	Left Arm	Right Leg	Right Arm	5
5	Left Arm	Right Leg	Right Arm	5
6	Left Leg	Right Torso	Right Leg	6
7	Left Leg	Right Torso	Right Leg	6
8	Left Leg	Right Torso	Right Leg	6
9	Left Torso	Center Torso	Right Torso	7
10	Left Torso	Center Torso	Right Torso	7
11	Left Torso	Center Torso	Right Torso	7
12	Center Torso	Left Torso	Center Torso	8
13	Center Torso	Left Torso	Center Torso	8
14	Center Torso	Left Torso	Center Torso	8
15	Right Torso	Left Leg	Left Torso	9
16	Right Torso	Left Leg	Left Torso	9
17	Right Arm	Left Arm	Left Arm	10
18	Right Arm	Left Arm	Left Arm	10
19	Right Leg	Left Arm	Left Leg	11
20	Special	Special	Special	2/12

Special Hit Location Table

1d20	Left	Front / Rear	Right
1 – 10	Head	Head	Head
11 – 20	LT (Critical)	CT (Critical)	RT (Critical)

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The Adams Approach

- Games as *wish-fulfillment*
  - I want to _____

- Questions to answer:
  - What dream are you satisfying?
  - What *goals* does this dream create?
  - What *actions* achieve those goals?
  - What *setting* does this dream create?
  - What is the appropriate *interface*?

- Use this to define **gameplay**

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  Narrative

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  Ludic

Have Realistic Goals

- **Goal**: Size of an indie mobile game
  - Can be played instantly with minimal tutorial
  - A few core mechanics with some variation

- **Quality over Quantity**
  - Ten amazing levels > 30 poor levels
  - Balance number of challenges with level size
  - Avoid feature bloat (e.g. power ups)

- We will give you constant feedback on this

Nature of Games

Commercial Examples

- **Braid**: Puzzle platformer with time-travel mechanics

- **Limbo**: Dark platformer with realistic physics

- **Hotline Miami**: Top-down stealth and action

- **Clash of Heroes**: Match 3 + Turn-based strategy

- **Guild of Dungeoneering**: RPG + CCG
  - Use cards to build the dungeon that you explore

- **Monument Valley**: Puzzle-based exploration

- Think indie games, not boxed retail

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Examples from Previous Semesters

- **Sisyphus (Spring 2021):**
  - Platformer where you are chained to a rock

- **Parole-in-One (Spring 2020):**
  - Stealth-based mini-golf game (don't get caught putting)

- **Mount Sputnick (Spring 2017):**
  - Competitive rock-climbing game

- **Dash (Spring 2014):**
  - Dash-based game where you must continually move

- **Exodus Protocol (Spring 2013):**
  - X-Com style strategy game with only three units

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- **Dash**
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Some are available at
http://gdiac.cs.cornell.edu

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