

COMP4002/G54GAM Games

Categorising Games

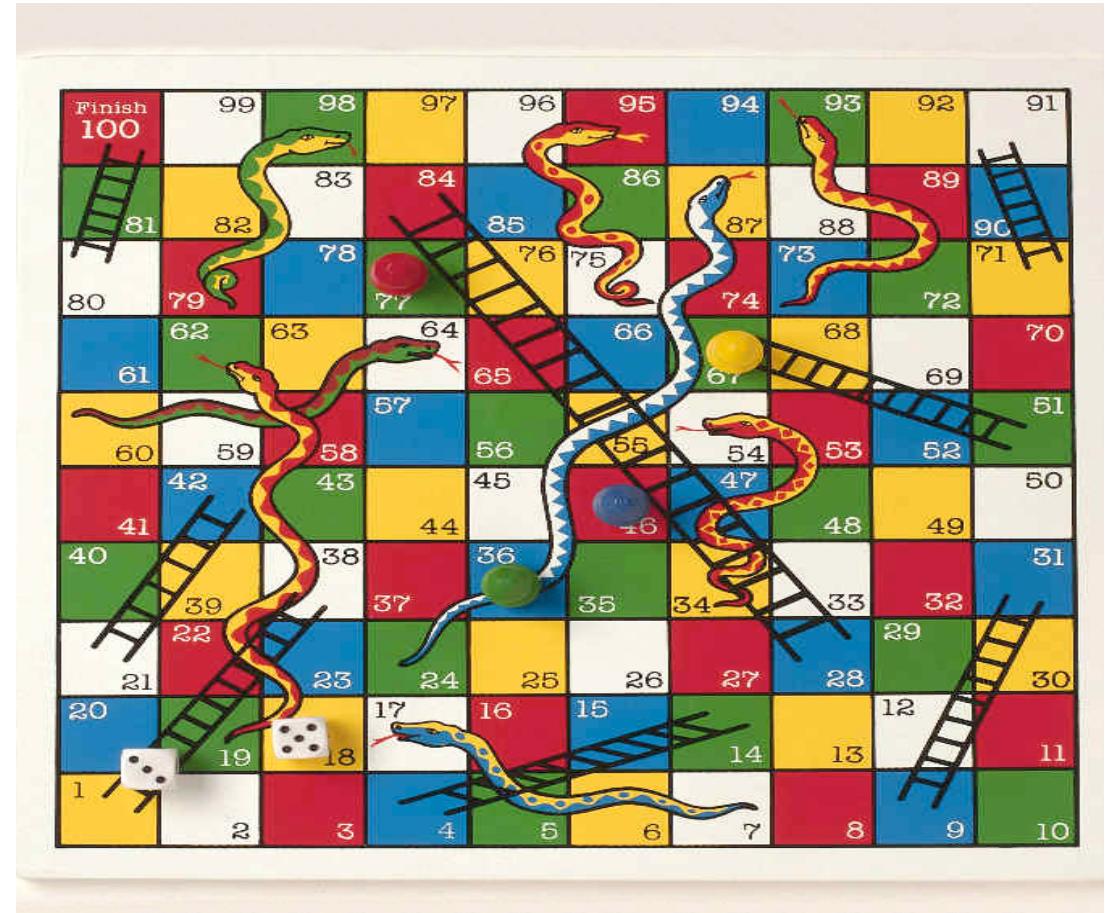
The Nature of Games and Play

What is a game?

- What is a **game**?
- What does it mean to **play**?
- How can we **compare, describe and classify the differences** between games?
- ...identify important concepts, then consider how those concepts operate or influence a game
 - The application of existing theories / design principles / lenses / *strong concepts*
 - More abstracted than particular instances, without aspiring to be at the scope of generalized theories. We propose an intermediate design knowledge form that we name strong concepts that has the following properties: is generative and carries a core design idea, cutting across particular use situations and even application domains; concerned with interactive behavior, not static appearance; is a design element and a part of an artifact and, at the same time, speaks of a use practice and behavior over time; and finally, resides on an abstraction level above particular instances. Hook et al.

What is a game?

- **Rules**
- **Players take turns...**
 - Roll the dice
 - Move that many spaces
- **When you land on a space...**
 - Ladders take you up
 - Snakes take you down
- **First to the finish wins**



What is a game?



What is play?

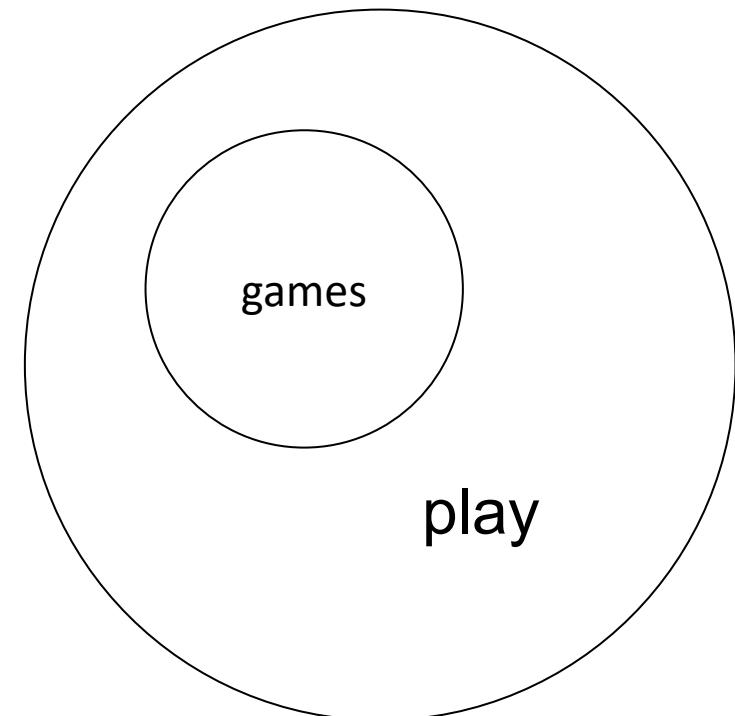
- Huizinga (Homo Ludens 1938)
 - A free activity standing quite consciously outside “ordinary” life as being “not serious” ... absorbing the player intensely and utterly ... connected with no material interest, and no profit can be gained by it
- Roger Caillois (Man, Play, and Games 1961)
 - Free: in which playing is not obligatory
 - Separate: circumscribed within limits of space and time, defined and fixed in advance;
 - Uncertain: the course of which cannot be determined, nor the result attained beforehand, and some latitude for innovations being left to the player's initiative;
 - Unproductive: creating neither goods, nor wealth, nor new elements of any kind; and, except for the exchange of property among the players, ending in a situation identical to that prevailing at the beginning of the game;
 - Governed by rules: under conventions that suspend ordinary laws, and for the moment establish new legislation, which alone counts;
 - Make-believe: accompanied by a special awareness of a second reality or of a free unreality, as against real life.

What is a game?

- Chris Crawford (The Art of Computer Game Design 1997)
 - Representation: A game is a closed formal system that subjectively represents a subset of reality;
 - Interaction: the intricate webwork of cause and effect by which all things are tied together;
 - Conflict: Conflict arises naturally from the interaction in a game. The player is actively pursuing some goal. Obstacles prevent him from easily achieving this goal. Conflict is an intrinsic element of all games;
 - Safety: Conflict implies danger; danger means risk of harm; harm is undesirable. A game is an artifice for providing the psychological experiences of conflict and danger while excluding their physical realizations. In short, a game is a safe way to experience reality.
- Greg Costikyan (I Have No Words and I Must Design 1994)
 - A game is a form of art in which participants, termed players, make decisions in order to manage resources through game tokens in the pursuit of a goal.

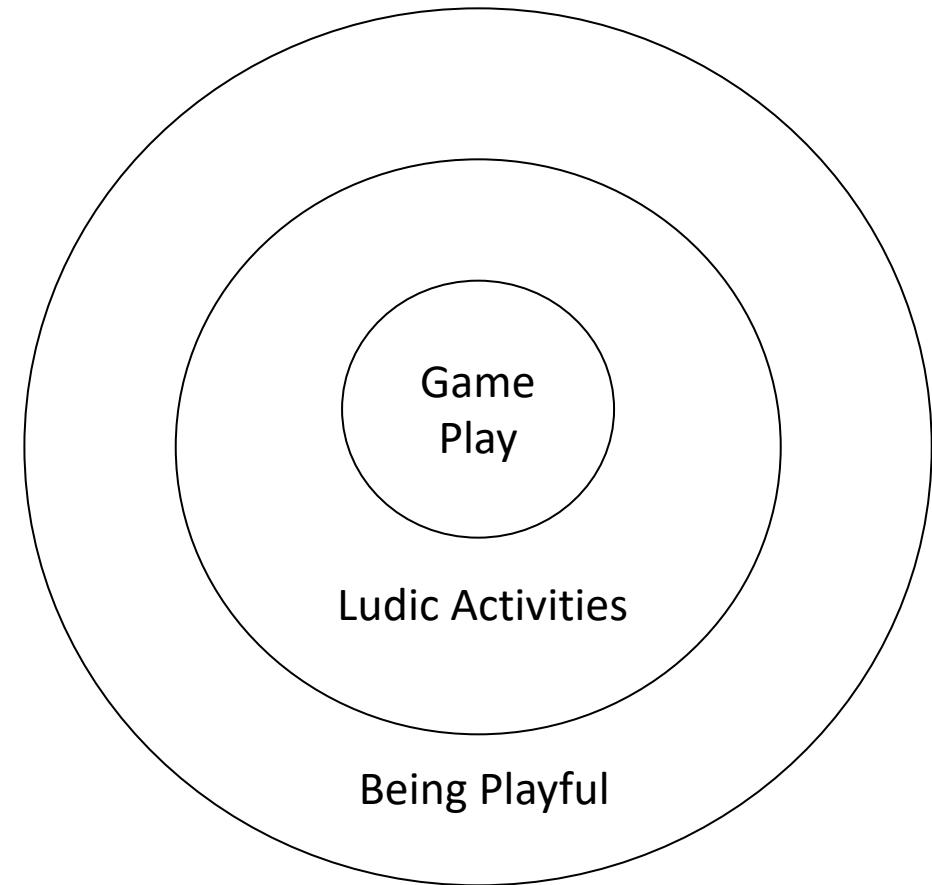
Games are a *subset* of play

- A typological / descriptive approach
- Examples of Play
 - A cat with some string
 - Playing on a swing
 - A community of role-players
 - A chess match
- Only some of these would be thought of as a game
 - Forms of play that are **formalised** are often considered to be games
 - Most forms of play are looser and less organised than games



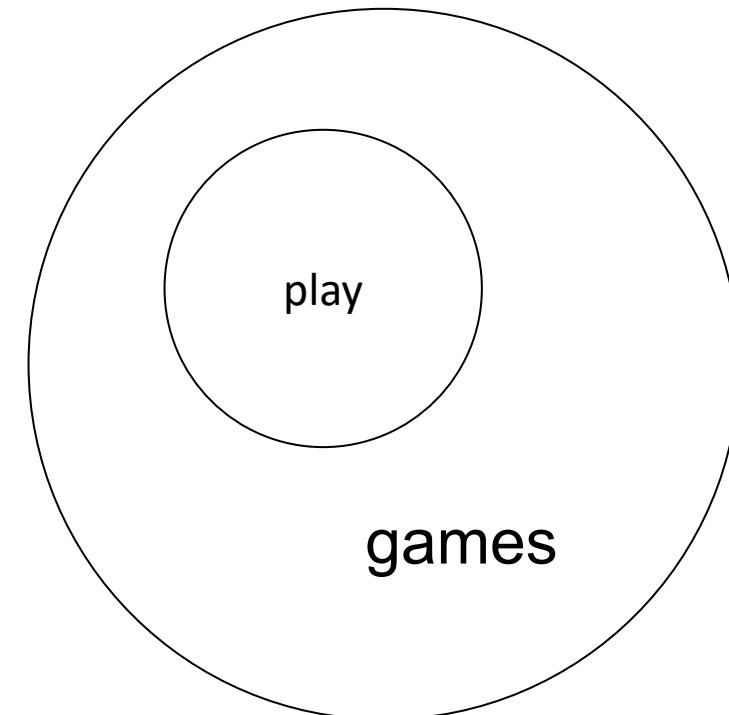
Games are a *subset* of play

- Game Play
 - Formalised interaction that occurs when players follow rules of a game and experience the system through play
- Ludic Activities
 - Non-game behaviours that we think of as “playing”
 - Bouncing a ball, a cat with a string
 - Caillous
 - Competitive play, chance based play, mimicry, perception and the pursuit of vertigo
- Being Playful
 - A playful state of mind
 - The spirit of play injected into some other action
 - Using slang, telling a joke
 - How you can inject the proper spirit of playfulness into an otherwise ordinary behavior?



Play is a *component* of games

- A conceptual approach
 - “Certainly everyone knows what play is not even if everyone can't agree on just what play is”
 - (J. Barnard Gilmore)
- Situate games and play within the field of design
- Play is a component of games
 - Games contain play
 - The experience of play is one of many ways of looking at and understanding games
- Play represents one aspect of games
- **Play is free movement within a more rigid structure**
 - Can you have a game without play?
 - Work / gamification
 - Depression (McGonigal)



Huizinga - Formalising play

- The Magic Circle of Play
 - A voluntary, contractual structure that is limited in time and space
- Defined before the game, or changed as part of the social gaming process
 - “We are going to play a game”
 - “I would like to join your game”
- Games are played...
 - In certain **spaces**
 - At certain **times**
 - By certain **players**

Huizinga - Formalising play

- All play moves and has its being within a play-ground ***marked off beforehand*** either materially or ideally, deliberately or as a matter of course.
- The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc, are all in form and function play-grounds, i.e. forbidden spots, isolated, hedged round, hallowed, ***within which special rules obtain***.
- All are temporary worlds within the ordinary world, ***dedicated to the performance of an act apart***.

Rules

- Huizinga -> formalised rules -> describe a game
- Rules
 - Limit player action
 - Are explicit and unambiguous
 - Are shared by all players
 - Are fixed
 - Are binding
 - Are repeatable
- Rules make up the inner, formal structure of games
 - All games have rules
 - Rules are a defining quality of games but are not the **experience** of play

Tic-tac-toe



Tic-tac-toe

- Play occurs on a 3 x 3 grid of 9 empty squares
- Two players take turns marking empty squares, the first player marking Xs and the second player marking Os
- If one player places three of the same marks in a row, that player wins
- If the spaces are all filled and there is no winner, the game ends in a draw
- The rules describe the formal system of the game but not the experience, the history or the culture of the game

Defining a game

- A game = a systematized form of play
- Adams
 - 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
 - A **game** is a **system** in which **players** engage in **artificial conflict**, *defined* by **rules**, that results in a **quantifiable outcome**

Defining a game

- System
 - A set of parts that interrelate to form a complex whole
- Players
 - One or more participants actively play the game
 - Players interact with the system in order to experience the play of the game
- Artificial
 - Games maintain a boundary from “real life” although they occur in the real

Defining a game

- Conflict
 - All games embody a contest of powers
 - Against others, against “the system”, “the rules”
- Rules
 - Provide the structure out of which play emerges, by delimiting what the player can and cannot do
- Quantifiable outcome
 - At the conclusion a player has either won or lost or received a numerical score
 - Distinguishes games from less formal play activities

Resultant design decisions

- Players
 - How many players are there?
 - 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**

Resultant design decisions

- Rules
 - How does the player affect 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**

More design decisions

- Have we captured the *essence* of a game?
 - Seems very dry
 - Actions *governed by rules*, not *defined by rules*
- Game modes
 - How are the challenges put together?
 - What is the interactional **context**?
- Setting
 - What is the nature of the **game world**?
 - What is the player's **perspective**
 - First person, side-scrolling, 3D, overview...
- Story
 - What **narrative** will the player experience?
 - How is it connected to the gameplay?
 - What explains the player's agency?

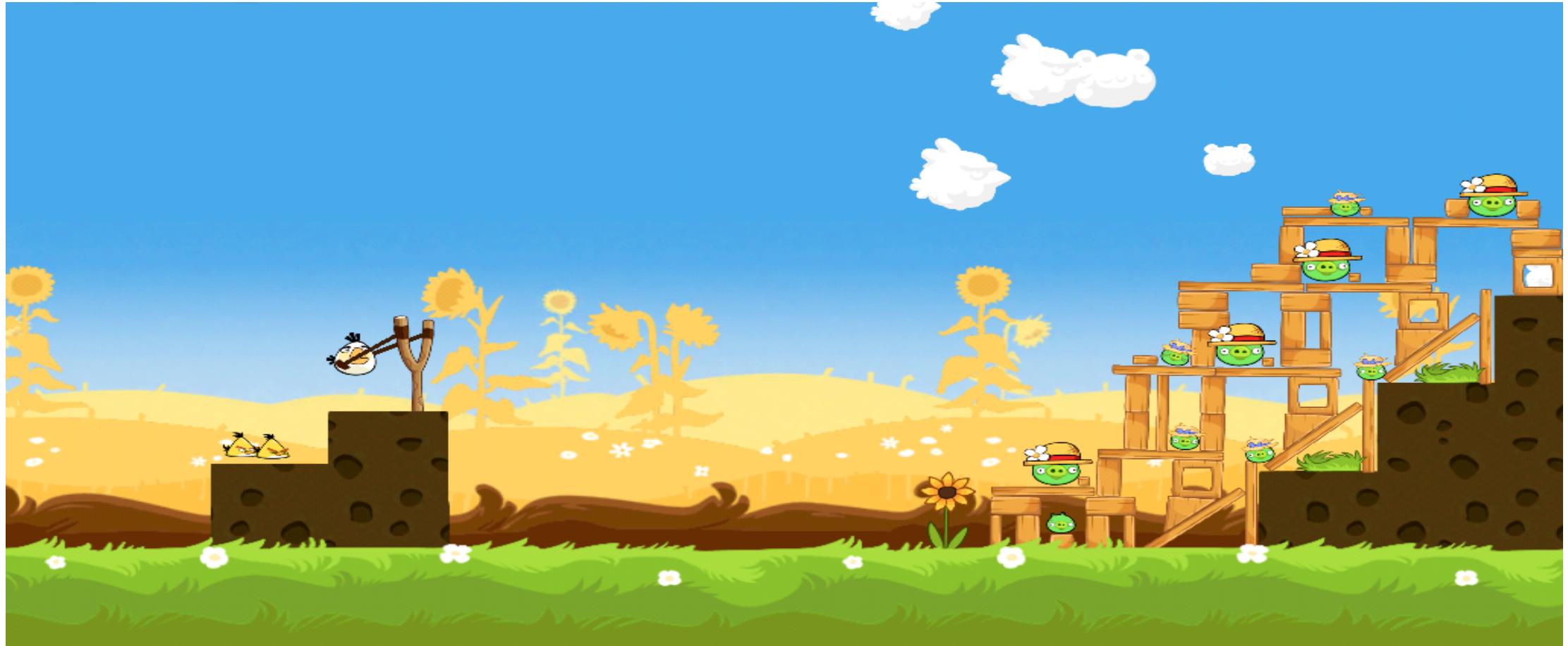
Competing design philosophies - Ludology

- Focus on gameplay, rules
 - What the player can, cannot do
 - The behavioural consequences of actions
- Learning a gameplay gestalt
 - What the player *does* within the system, as allowed by the rules
 - Playing the game = performing the gestalt
 - A pattern of repetitive perceptual, cognitive and motor operations
 - **Not** a game design pattern
 - **Not** designed into the system of a game
 - **Emergent** from the rules and the design
- Pros
 - Focus on player agency
 - Tight, well defined gameplay
- Cons
 - Lack of player motivation
 - Hard to distinguish the game from others
- *Action games: shoot while being hit, strafe to hiding spot, take health, repeat*

Competing design philosophies – Simulation, Narratology

- Simulation
 - A representation of the function, operation or features of one process or system through another
 - Pros
 - No goal oriented activities / end-state
 - Repetitive action used to drive a simulation
 - Cons
 - Continue playing after all enemies are defeated
- Narratology
 - Games are a story medium
 - Focus on storytelling
 - Pros
 - Traditional narrative structure
 - Emotionally compelling, strong artistic vision
 - Cons
 - Author voice over player voice
 - Poorly defined mechanics

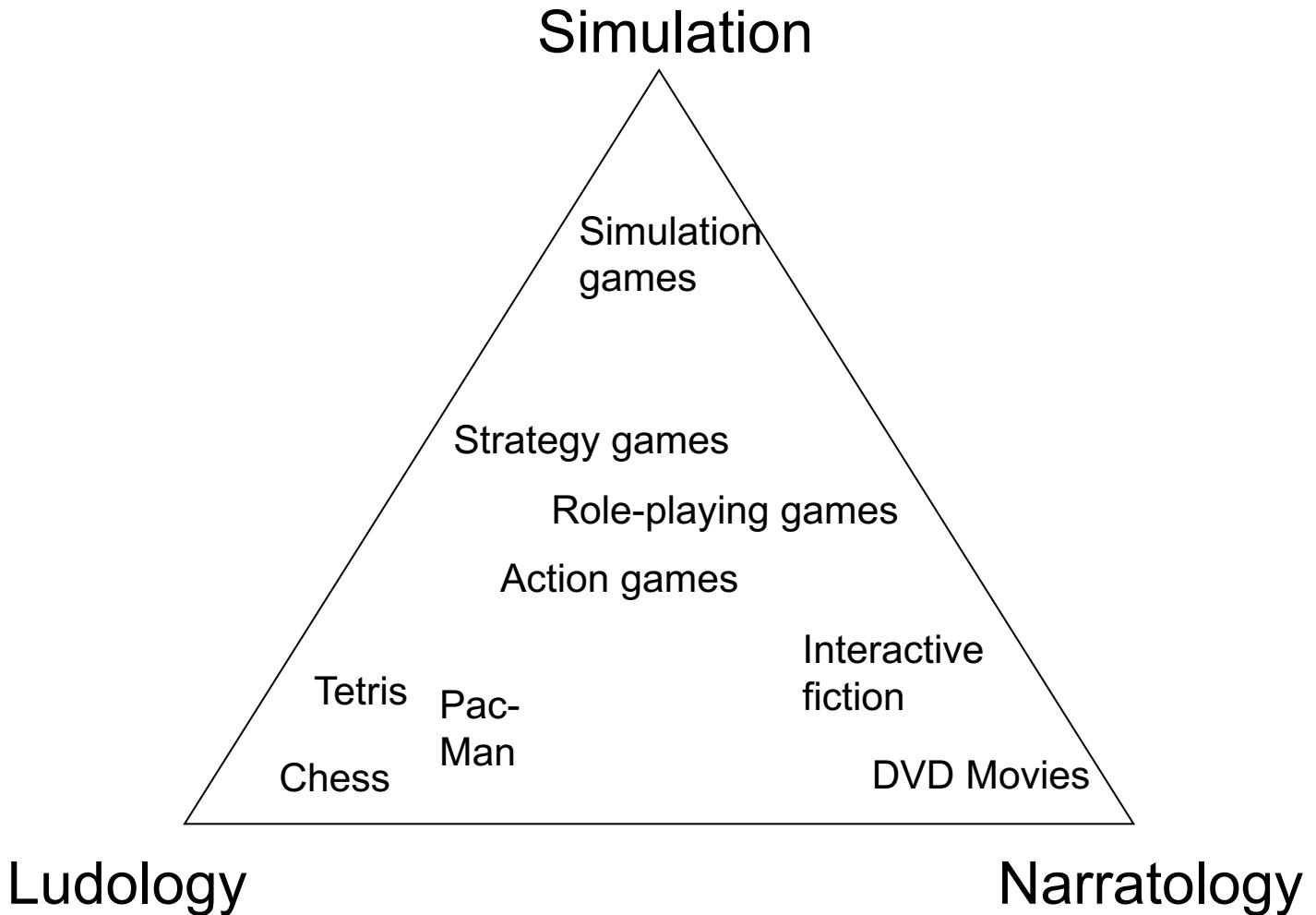
Angry Birds (2009)



Crush the Castle (2009)



Craig Lindley (2003)



Core Mechanics = Gameplay gestalt

- Identify the **core mechanic** of a game
 - The essential play activity players perform again and again in a game, and why
 - The *purposeful interaction* that occurs the most *frequently*.
 - Used to describe the **experience** of a game when placed in context
 - “It’s what you do in a game”
 - Often difficult to distinguish between core and secondary mechanics
- A single action
 - A driving game / race = running
 - Trivial pursuit = answering questions
 - Donkey Kong = using a joystick and jump button to maneuver a character on the screen
- A compound activity
 - Quake (FPS) = a set of interrelated actions such as moving, aiming, firing, managing resources such as health, ammo, armour
 - Starcraft (RTS) = resource management, wargame strategy, rapid mouse and keyboard command skills

Core Mechanics

- What the player *does* within the system, as allowed by the rules
- A game's core mechanic contains the experiential building blocks of player activity
- Repeated over-and-over again
 - Create patterns of behaviour
 - Manifest as experience for players
 - The mechanism within / by which players make choices and have a **meaningful** experience
 - “Free movement within a more rigid structure”
- <http://www.youtube.com/watch?v=-kkEj4rl2t8>

Varying the core mechanic

- A common practice with early arcade games
 - Pacman, Breakout
 - Repetitive core mechanic, easy to complete, then you do it again, and again...
 - Slight variations of core mechanic provide a “new” game
 - Add time limits, multiple levels, invert the mouse, change the behaviour of game elements
 - Same interactivity, different experience
 - Some successful, some not
- Arguably few *pure* core mechanics, many variations on a theme
 - Secondary mechanics

Classifying games

- Position within a spectrum
 - Simulation, narrative focus, ludological focus
- A range of variables
 - Players, goals, rules, challenges, mode, setting
- A description of the core mechanic
- A taxonomy of games
 - Group by “genre” or similarities in one or more dimensions, common elements
 - An inexact science, open to debate
 - Adams and Rollings

Action games

- Real-time games in which the player must react quickly
- Require quick reflexes and timing to overcome obstacles
- Emphasis often on combat
 - Reaction tests, hand-eye coordination tests
 - Skill is a primary factor of play
- Sub genres
 - *Shooters*
 - First-person shooters
 - Scrolling shooters
 - *Platformers*
 - Fighting
- Rules fundamentally describe the game mechanics
 - Lives, energy, score, time limits, collectibles, waves, bosses

Breakout (1976)



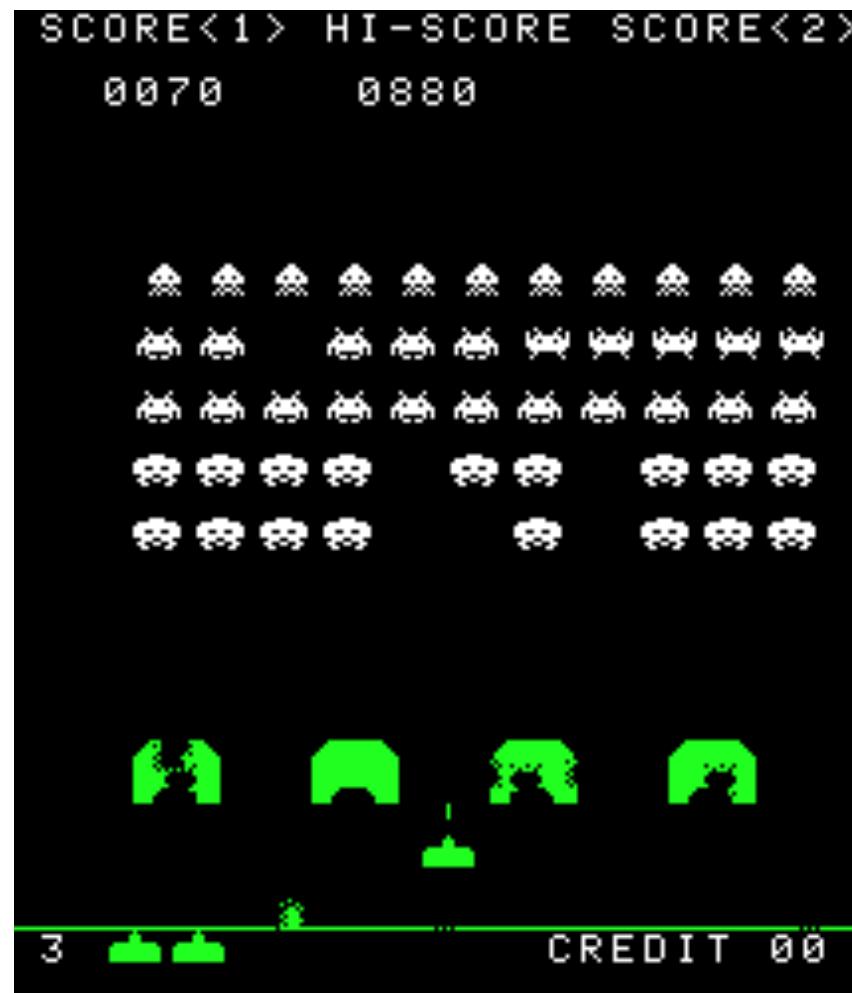
Wolfenstein (1992)



Counter Strike – Global Offensive (2012)



Space Invaders (1978)



R-Type (1987)



Super Mario Bros (1985)



Street Fighter (1987)



Tekken 7 (2016)



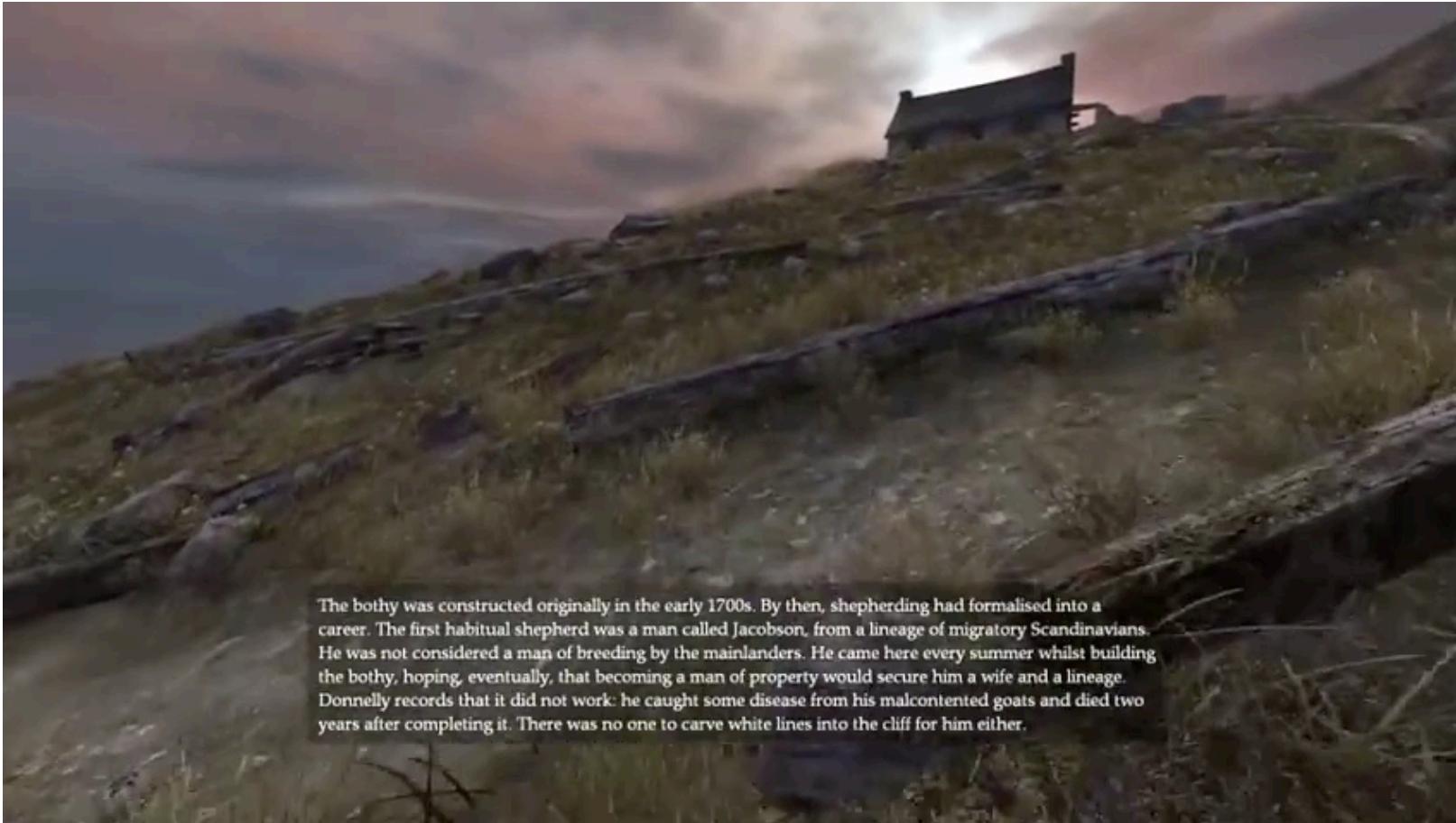
Adventure

- Solve puzzles by exploring and interacting with people or the environment
 - Setting is not incidental
 - C.f. Breakout
 - Manipulation of objects, dialogue
- Text-based “interactive fiction” or graphical
 - The player is usually represented by someone inside a *narrative*
 - A more sophisticated *emotional tone*
 - Highly structured narrative
- 1st, 2nd or 3rd person
- Often non-confrontational
 - Often said to appeal to those who do not normally play video games
 - Few *failure states* / catastrophic deaths

Myst (1993)



Dear Esther (2008)



The bothy was constructed originally in the early 1700s. By then, shepherding had formalised into a career. The first habitual shepherd was a man called Jacobson, from a lineage of migratory Scandinavians. He was not considered a man of breeding by the mainlanders. He came here every summer whilst building the bothy, hoping, eventually, that becoming a man of property would secure him a wife and a lineage. Donnelly records that it did not work: he caught some disease from his malcontented goats and died two years after completing it. There was no one to carve white lines into the cliff for him either.

Action-adventure

- Combine elements of action and adventure genres (!)
- Long-term obstacles and challenges as found in adventure games
 - Exploration
 - Item collection and use
 - Puzzle solving
- Many immediate challenges as found in action games
 - Combat
 - Reactions and hand-eye coordination

Tomb Raider (1996)



Resident Evil (1996)



Strategy

- Many similarities with board games
 - Warhammer 40K
 - Discrete, turn-based interaction
 - A consistent and balanced rule-set
- Require careful thinking and planning to achieve victory
 - Management of a limited set of resources, not necessarily combat
 - Deciding which units to build and where and when to deploy them
 - Often a “godlike” *view* of the game world
 - Indirectly control semi-autonomous units
- Theme, simulation are as important as rules
 - Conquest, trade, explore
- Real time (RTS)
- Turn based (TBS)

Worms (1995)



Age of Empires 3 (2005)



Role Playing Games (RPGs)

- Inspired by traditional role-playing games
 - Dungeons and Dragons
- Choose to play one of a number of different characters
 - Elf, dwarf, wizard, thief...
 - High player agency in determining character
 - Focus on gradually increasing abilities of the character by completing quests
 - Experience
 - Skills, equipment, special abilities
 - Highly narrative driven
 - *Character development*
 - Theme gives player agency
- Turn-based or real-time combat

Angband (1990)

You have no more Scrolls of Summon Monster (o).

Dwarf

Soldier

Warrior

LEVEL 8

NXT 95

AU 567

I ~(())]]

STR: 18/30

INT: 12

WIS: 11

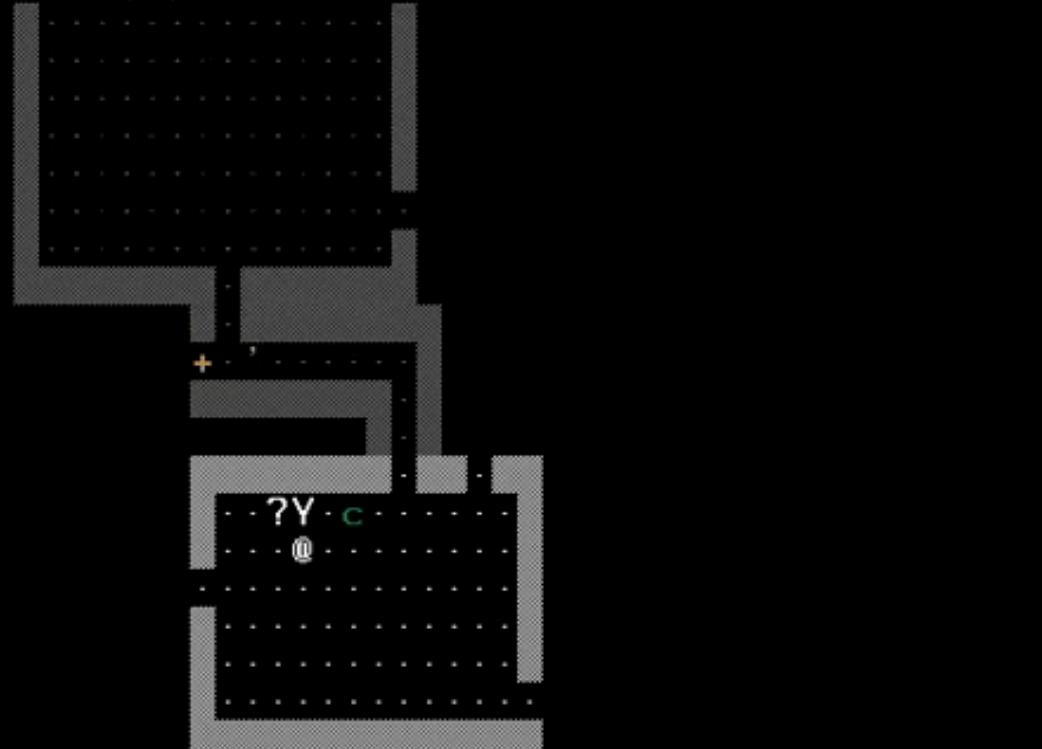
DEX: 14

CON: 16

CHR: 9

Cur AC 21

HP 56/ 108

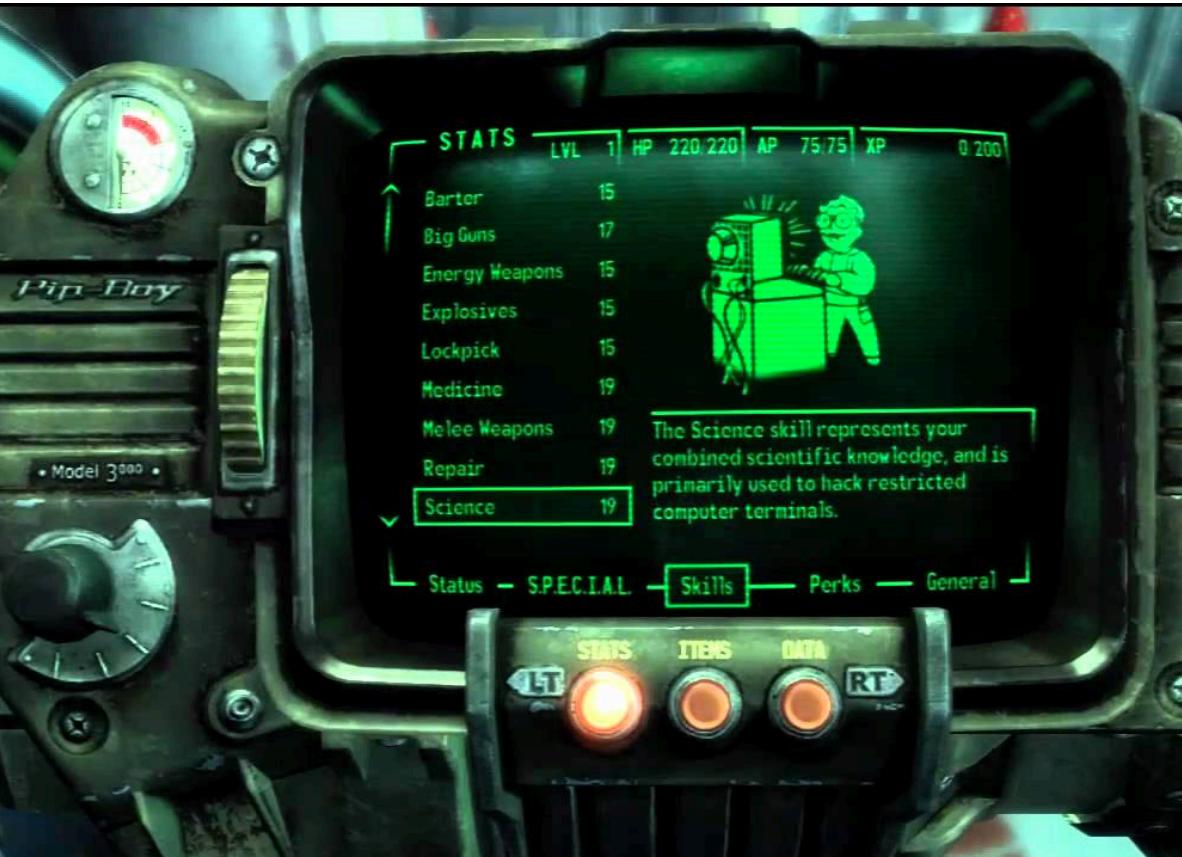


200' (L4)

World of Warcraft (2004)



Fallout 3 (2008)



Fallout (1997)

Our existence: a subterranean fallout shelter modified to house 1000 people indefinitely after a nuclear holocaust. It's been nearly 80 years, and we still don't have any idea what's out there. Sure we've sent out volunteer scouts, but none of them returned....

Now our water recycler has failed. Rationing has begun, but someone needs to leave the vault to get a replacement microchip for the water recycler and look for other survivors.

We drew straws. You drew the short one...

Simulation

- The emulation of real world operating conditions to varying degrees of accuracy
 - Not necessarily a strong ludological component (differentiation from RTS)
 - Competitive contexts
 - Economic challenges
 - Indirect control
- Construction and management simulation
 - City-building games
- Life simulation
 - Social simulation
- Vehicle simulation
 - More realistic
 - Less fun?

SimCity 2000 (1993)



Microsoft Flight Simulator (2006)



Farming Simulator 2013 (2012)



Others...

- Music/party
 - Karaoke or rhythm based
 - Guitar Hero
- Traditional board games
 - Chess, Mahjong
- Puzzle
 - Logical, abstract, mazes
- Sports
- Serious, Educational, Christian, Adult, Advertising, Casual

Reading

- [http://www.gamasutra.com/view/feature/131205/game taxonomies a high level .php](http://www.gamasutra.com/view/feature/131205/game_taxonomies_a_high_level_.php)
- Salen & Zimmerman chapters 7, 22
- **Rollings and Adams chapters 9, 10, 11, 15 “The Genres”**
- <http://www.costik.com/nowords2002.pdf>

Homework

- Play a game.
- Where does it fit into Lindley's framework?
- What are the players, goals, rules, challenges, mode and setting?
- What is the core mechanic?
- How would you explain the difference to another game? In what *genre* would you put it?