Games I

An Introduction

Lecture 26 – COMPSCI 111/111G S2 2020

Definitions: Play

▸ Range of activities done for recreational pleasure and enjoyment.

▸ Playing is done by many animal species:

  ▸ Usually associated with juvenile activities but occurs at any life stage.

  ▸ Possible between species.

  ▸ May be used to determine social rank.

  ▸ Provides opportunity for learning/training.

Definitions: Game

▶ Structured form of play governed by rules.

▶ Participants are referred to as players.

▶ Gameplay characterizes what players do.

▷ Tools and rules that define the overall context of the game.
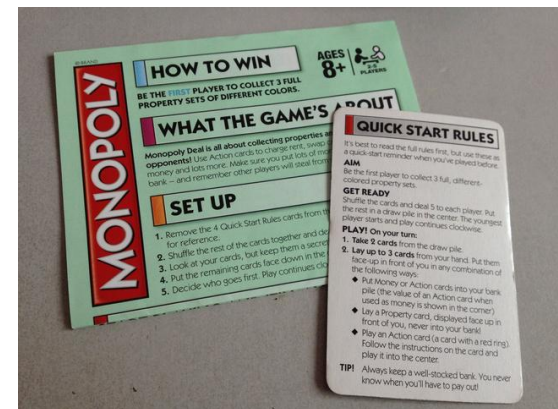
First Games? Sport

▶ Ritualized forms of other activities (hunting)
  ▶ Running
  ▶ Spear throwing
  ▶ Archery

▶ Gameplay features
  ▶ Produce a *measure* of *physical skill* by *competition* against other person

First Games? Divination

▸ **Randomizers**
  ▸ Objects used for divination

▸ **Evidence**
  ▸ Staves found in Tutankhamen's tomb (~1323 BC) together with game board
  ▸ Similar staves found in the royal tombs at Ur together with another game board
  ▸ I Ching divination (~1000 BC)

▸ **Gameplay features**
  ▸ Produce a *random outcome* within *well-defined limits* and *clear states*

Source:
Parlett, David, *The Oxford History of Board Games*, Oxford University Press, 1999

First Organized Games

- Gladiator Games
  - Celebrate battles at funeral
  - Changed when Julius Caesar organized games in honor of his father and then his daughter

- Religious festivals

- Olympic Games, 776 BC
  - Judges
  - Truces between countries,
  - Participants status as religious pilgrims

Dice Games

- Inventors
  - Lydians of Asia according to Herodotus

- Predecessors
  - Binary Lots
  - Astragals
    - Depicted ~800 BC

- Gameplay features
  - Provide *variety of ranges* for randomizers and tie results to abstract measures – *numbers*
  - *Meta game* – betting on outcome (but equally possible from sports)
    - Will of the gods - not taxed!
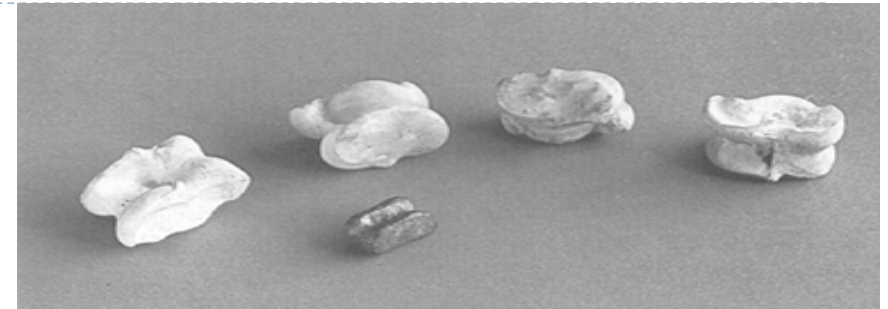
Board Games

- ▶ Origins
  - ▶ traced to keeping track of player's scores in dice games

- ▶ Gameplay features
  - ▶ Introduced *game token* to maintain *game state*
  - ▶ *Linked series of actions* to randomized values to manipulate *game state*
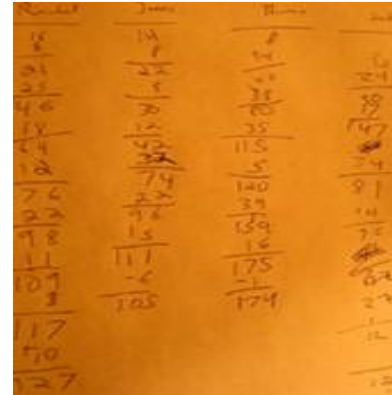
Racing games

▶ Interpreting movement on board as physical movement

  ▶ Ludo (from Pachisi, ~700 BC)

  ▶ Backgammon (from Senet & Mehen, 2650+ BC)

▶ Gameplay features

  ▶ Introduction of the concept of a *game world*

  ▶ Introduction of *several game tokens* controlled by one player introduced *choice*

  ▶ *Capturing* other tokens meant that effects of changing one part of the game state by have additional effects – *abstract events*

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Perfect Information Games (non-stochastic)

- Removal of randomness from board games
  - Chess (referred ~600 AD)
  - Go (from Wei-qi, 2000 BC)

- Gameplay features
  - *2D* game world
  - Focus on *mental skills*
  - Actions defined by tokens
    - *Context-dependent actions*
    - *Functionally different tokens*
  - Possible to *predict opponent*
  - Additional goals based on *space control*, *space filling*, *connection*, and *collection*
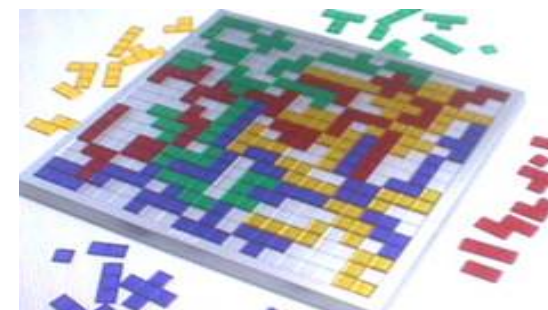
Imperfect Information Games (stochastic)

- Making part of the game state unknown to players
    - Stratego
    - Battleship
    - Blind Chess/Kriegspiel

- Gameplay features
    - *Hidden game state*
    - *Heterogeneous information availability*
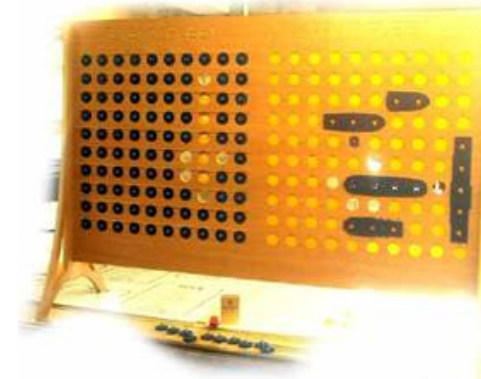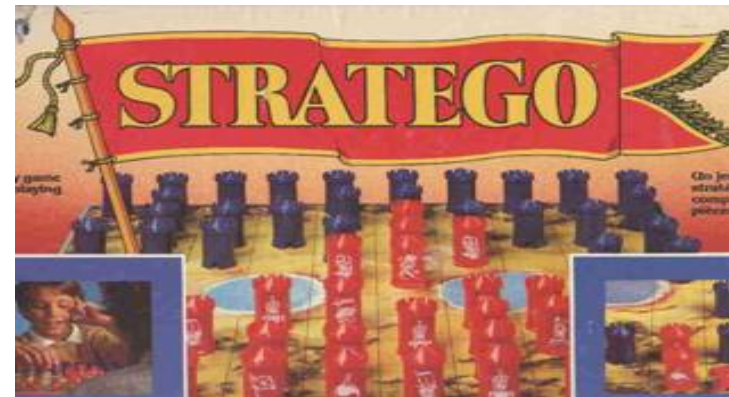
Skill Games

- Board games where movement is determined by successful action or performance
  - Scrabble
  - Trivial Pursuit
  - Pictionary
  - "Normality Game"
  - Balderdash (Rappakalja)
  - Apples to Apples

- Gameplay features
  - Introduction of variety of *skills* – social, artistic, intellectual

Tabletop or Miniature Games

- ▸ Origins in forms of kriegspiel

- ▸ Similar to board games but use graphically depicted miniatures
  - ▸ Warhammer 40K

- ▸ Gameplay features
  - ▸ *Continuous game world*
  - ▸ Players *own game tokens* they use
  - ▸ Requires players to do *extra-game activities*

Card Games

- Background intertwined with Dominoes & Mah-Jong tiles
    - Modern variants probably Persian origin
    - Brought to Europe by Arabs 13th century
    - Specialized decks quite late

- Gameplay features
    - *Game systems*
    - Random but *fixed distribution*

Collectable Card Games

- Combines card games with idol cards
  - Magic: the gathering
  - Illuminati: new world order

- Gameplay features
  - Cards have *self-contained rules* within a rule framework
  - *Physical rarity affects value* of game token

Roleplaying Games

- Expansion from miniature games
  - Dungeons & Dragons, 1974
  - The Basic Roleplaying System

- Gameplay features
  - *Unclear winning conditions*
  - *Unclear end conditions*
    - campaigns
  - *Game master*
    - Unequal power structure
    - Open-ended rule set
    - Mediates the Game World
  - *Character development*
  - *Roleplaying*
  - Novel narrative structure – *adventure modules*

Live-Action Roleplaying Games

▸ Arose from roleplaying games, improvisational theatre and re-enactment societies

▸ Earlier similar activities
  ▹ re-enactments of battles between Osiris and Seth in ancient Egypt
  ▹ 'carrousel' games at European courts during the 17th and 18th centuries
  ▹ psychoanalytic methods in the 1920s

▸ Gameplay features
  ▹ Players represent their characters
  ▹ Players *physically act out* what they do in the game
  ▹ *Extra-game activities* may take a majority of time spent

Novelty Games

▸ Machines that provide gameplay or lets players test skills

▸ Gameplay features
  ▸ *Coin-op*
  ▸ *Machine controls game flow*

Pinball

- ### Gameplay features
  - Flippers
  - *Electro-mechanical game system*

- ### Pinball games were initially used for gambling.
  - Lead to legal issues and then banning in certain places.
  - Generally considered games of skill rather than chance now.
  - *Pachinko is a similar electromechanical game system that is used for gambling in Japan.*