

MIT STEP/TEA



Designing Learning Games

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What We Are Doing Today

- Talking About Game Design
- Pitching Your Designs

A Quick Exercise

- Write down all the games you've ever played.
- Pause the video while do this.

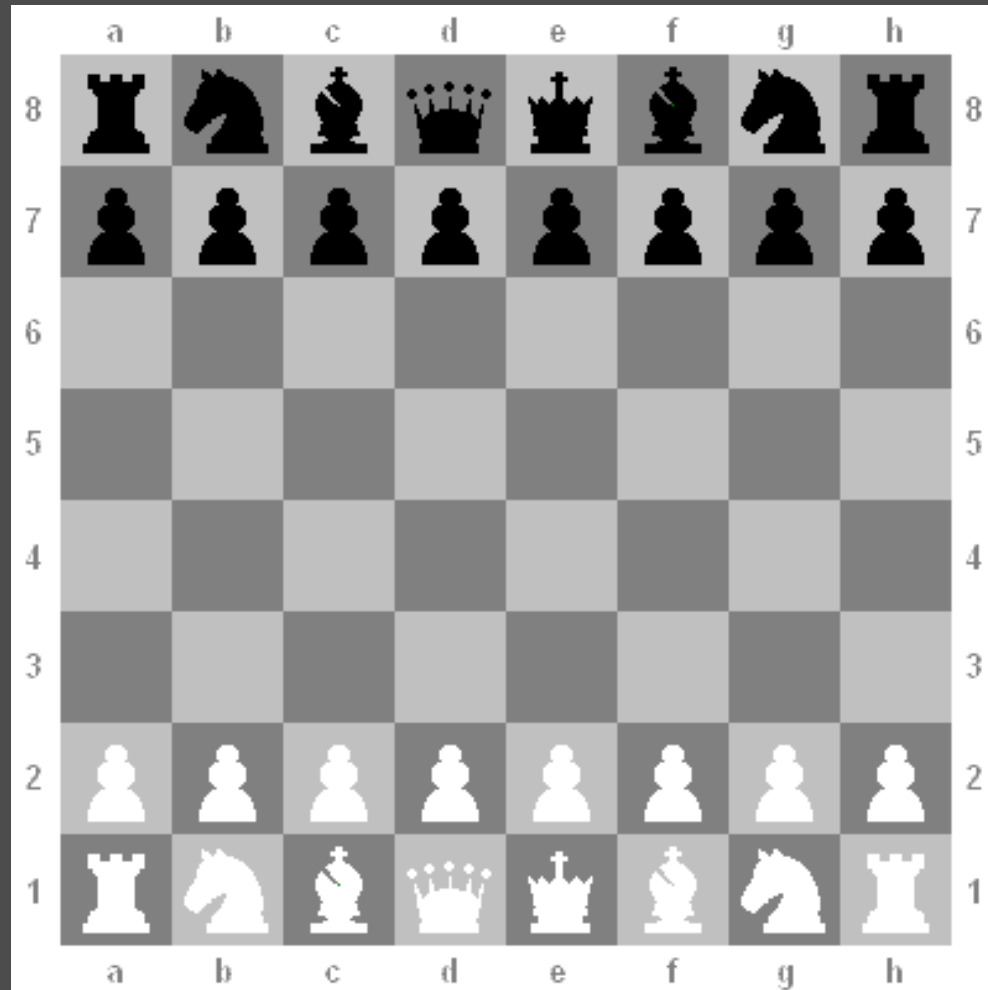
Did You Pause It?

5 MINUTE BREAK

Some Games I've Played

Chess * Baseball * World Warcraft * Soccer * Flag Football *
Checkers * Crazy Eights * S.P.U.D. * Hand and Foot Canasta *
The Secret of Monkey Island * Super Mario Brothers * Tag *
COMBAT * Zaxxon * World Ball * The Pattern Game * Bunny *
Freeze Tag * Hide and Seek * Kid Niki * Rock Band * Halo *
Super Smash Brothers Brawl * Street Fighter 2 * Poker *
Chinese Checkers * Party Quirks * Godzilla: Destroy All
Monsters Melee * J.S. Joust * Fluxx * Agricola * Set * Dixit *
Apples to Apples * Puerto Rico * Buffy the Vampire Slayer: The
Board Game * Pandemic * Settlers of Catan * Basketball *
Chrononauts * The Big Idea * Munchkin * Kuhhandel * War *
Solitaire * Zaxxon * Lunar Lander * Mafia/Werewolf...

Chess



Soccer/Football



World of Warcraft



How Do Games Work?

- Players
- Goals
- Rules
- Don't Count

How Do Games Work, Pt. II

- Arranged in Systems
- Hard Fun
- Meaningful Choices

Chess

- 2 Players
- Competitive
- Tiled Board
- 16 pieces each, many with unique moves
- 1 move per turn
- Victory when a player can no longer protect their King.

Soccer/Football

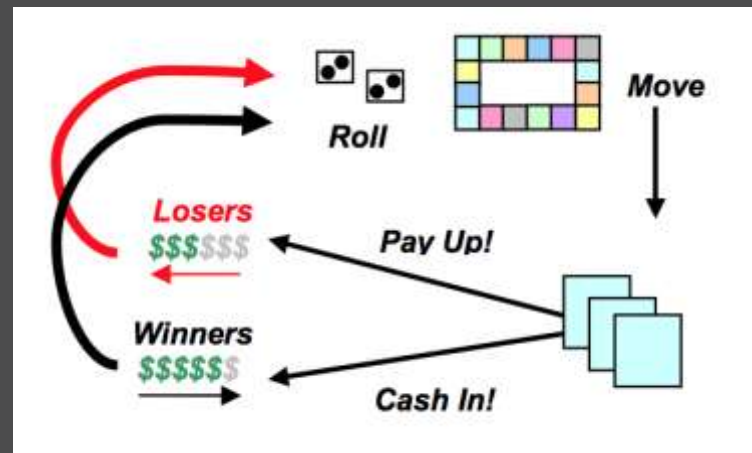
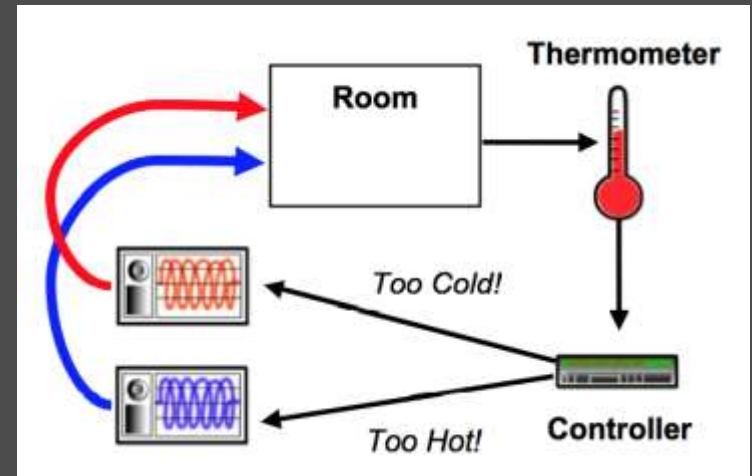
- 2 eleven player teams
- Action centered around a ball
- Only the goalies may use their hands
- Grass or Turf field
- The winner is the team with the most goals scored by the end of a timed period.

World of Warcraft

- Millions of players
- A huge world, demanding exploration
- Most of the games verbs center around bringing player and opponent health bars up or down
- High fantasy aesthetic, infused with tremendous amounts of other human culture
- A large number of programmed social structures - some goal-oriented, others less so

Mechanics - Dynamics - Aesthetics (MDA)

- Mechanics - “Actions, behaviors, and control mechanisms afforded the player.”
- Dynamics - “work to create aesthetic experiences”
- Aesthetics - use “aesthetic vocabulary like a compass [to] define models for gameplay”



Hunicke et al. 2004

Our Games

- How would we think about MDA for Chess?
- For Football?
- For World of Warcraft?

How Do Learning Games Work?

- Audience
- Learning Objectives
- Mechanical/Systemic Match

PHEW

EVERYONE OK?

The Pitch

- Your own game idea
- Words
- Images

Don't Overthink it.

Tips & Tricks, Pt. 2

- Start with Learning Objective...
- ...then the Audience...
- ...and finally, the Mechanical Match.

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- ...then the Audience...
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[EXAMPLE]

Tips & Tricks, Pt. 4

MASHUP

$X + Y = Z(?)$

Tips & Tricks, Pt. 4

MASHUP

$$X + Y = Z(?)$$

[EXAMPLE]

CHECKING YOUR WORK

Can you change
subjects easily?

Playtest & Iterate

Meaning in Context





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<http://education.mit.edu>

<http://educationarcade.org>