Overview

Game Genres and their Educational Potential
- Types of Environments
- Game Genres

Game Genres

Types of Environments

Group Activity

Play a Game designed by your peers! (15 min., Groups of 3-4)
- Play a game as assigned by the instructor:
  - Was the game fun? Would you want to play it again?
  - Do you think the game has an educational value? Describe!
  - What would you change to make it more educational?

Environments
- Games
- Simulations
- Animations
- Microworlds
- Virtual Reality
- Augmented Reality
Educational Games

Elements of Educational Game Design

Plass & Perlin

Player Effectiveness

Aesthetic Design

Art Direction

Enticement/Reward

Relevance

Player Effectiveness

Interaction Design

Game Mechanics

High Score

Social Standing

Cooperation

Competition

Emotional effect

Narrative

Authenticity

Curricular Relevance

Intellectual Challenge

Make progress visible

Visual Design of Materials

Musical Score

Sound Effect

Emotional effect

Level of Interactivity

Level of Control

Empowerment

Emotional effect

Educational Content

Strategic Content

Scaffolds
Game Genres

Genres (Jonathan’s list, cont.)
- Turn-based strategy
- Casual Games
- Persistent world games
- Epistemic
- Serious
- Browser-based
- Simple/2D

Student Presentation

Presentation of a game related to today’s topic
(1 group - 10min.)
- Game Genres
- Educational Potential?
**Game Genres**

**Educational Game Genres**
- Open-ended simulation (sandbox) games
- Targeted conceptual games
- Professional role-playing games
- Multi-user virtual environments (MUVEs)
- MMOs

**Group Activity**

Discuss the educational potential of games! 15 min., Groups of 3–4

- What are possible benefits and pitfalls of using games for education?
- Consider genres separately
- Review examples provided on the course documents page
- What can be done to avoid the pitfalls?
- What learning theory could such an environment be based on?

**Game Genres**

**Open-ended simulation games** (Squire, 2008)
- Open-ended worlds
- Multiple solution paths
- Space for knowledge creation and discovery
- Learning as process of coming to understand a system
- Ideological worlds, interpretative communities
- Possibility spaces
  - Intellectual play spaces
  - Identity play spaces
- Learning through social game play

**Conceptual Play Spaces** (Barab et al., 2009)
- Support empathetic embodiment for complex systems
- Form discourse communities
- Conceptual Play = Engagement, involving
  - Character role
  - Party fantastic problem context
  - Apply conceptual understanding to transform context
  - Opportunities to examine impact of participation on context
- Quest Atlantis

**Quest Atlantis** (Barab)

**RiverCity** (Dede)
Game Genres

Scaffolds (Barab et. al. 2009)
Narrative
Social
Perceptual
Interactive

Games and Education

Literary
Focus on social learning, identity
Exploration and knowledge creation
Legitimate Participation in community of practice
Apprenticeship (reciprocal)
Learning through design & creating new artifacts

Out of Class Activity

Play a game!
Play a computer/console game in CREATE - tonight!
Write one paragraph reflecting on your experience

Design an educational game!
Development an educational game