CE810 - Game Design 2

Introduction

Joseph Walton-Rivers & Piers Williams

Monday, 14 May 2018

University of Essex

But First …

Before we begin though …

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- Try to attend as much of this as possible!

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| Keyterm | **Word** | A word or term that will be explained later in the slides |

Conventions

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Link	Word	A link to something so you do not have to type in URL's

An Overview

1. Evaluate the mechanics of a game.
2. Explain gameplay elements in terms of game theory.
3. Describe the relationship of story and computer games.
4. Develop measures of player experience and apply them to optimise game parameters.
5. Evaluate the effects of game AI on player experience.

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To use game playing agents (AI) to help us test points in our design space to improve player experience in games

How is AI used in games?

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Bots Agents that act like players *possibly*

Game Agents

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Directors   Things that alter the game

Game Agents

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Directors Things that alter the game

For this module, we'll mostly be talking about bots.

Games have many different **parameters** which can be tuned to produce different outcomes.

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- How many coins do I need to collect?

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Examples:

- How much damage does my bullet do?
- How many coins do I need to collect?
- What terrain can my scout walk over?

Definition

Collection of events that **occur** to the player **during** the game

- Understand **differences** in variations - is version A better than version B?

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- Does a game have defects/exploits

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- Does a game have defects/exploits
- Are there dominant strategies?

- Game Design Spaces

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- Player Experience

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- ~~General Video Game AI~~

- Game Design Spaces
- Player Experience
- ~~General Video Game AI~~
- Game Design

Who are We?

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Joseph Walton-Rivers

- PhD Student
- Research on:
  - Artificial Intelligence
  - Player Modelling
  - Believability

Piers R. Williams

- PhD Student
- Research on:
  - Artificial Intelligence
  - Partial Observability
  - Co-operation

Admin Stuff

Structure

- Two Weeks - here (Lab 2)

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- Module will be a mixture of lectures, labs and group work.

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- Information on our site
  http://ce810.fosslab.uk/timetable.html

Assessment

- Asteroids Experiment [10%]

Full details on the module page.

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  - Search design space for target game

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        - Reports (pdf)

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