CE810 GD2

CE810 - Game Design 2

Introduction Joseph Walton-Bivers & Piers Williams Monday, 14 May 2018

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Introduction

Joseph Walton-Rivers & Piers Williams

Monday, 14 May 2018

University of Essex

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2018-05-25



But First ...

But First ...

Etiquette



Etiquette

Before we begin though ...

This will be less formal than most modules.

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Etiquette

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Etiquette

Before we begin though .

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 Feel free to ask questions as we go along

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 We're going to try and make this as interactive as possible
 Try to attend as much of this as possible!

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Word Word A normal word in the presentation

But emphasis can change subtly meaning of a sentence so it is included in the slide as well as in our anunciation

Conventions

Word A normal word in the presentation



Word Word A normal word in the presentation Keyterm Word A word or term that will be es plained later in the slides

WordWordA normal word in the presentationKeytermWordA word or term that will be explained later in the slides

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Word	Word	A normal word in the presentation
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Emphasis Link	Word Word	Purely stylistic in most cases A link to something so you do not have to type in URL's

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An Overview

An Overview

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Learning Outcomes

Evaluate the mechanics of a game.
 Evaluate the mechanics of a game.
 Evaluate instances of the second second

- 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.

We are covering the last two. Click to highlight each in turn.

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- 1. Evaluate the mechanics of a game.
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CE810 GD2 CE810 Verview An Overview Learning Outcomes

Learning Outcomes

Evaluate the mechanics of a game.
 Evaluate the mechanics of a game.
 Evaluate instainsthy of terms of game theory.
 Inscribe the relationship of story and computer games.
 Evaluate comparison of the story of

We are covering the last two. Click to highlight each in turn. 5. As it says on the tin To use **game playing agents (AI)** to help us test points in our **design space** to improve **player experience** in games

We will cover this in more detail in a later slide

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

 Game Agents

How is AI used in games?

How is AI used in games?

 Game Agents

How is AI used in games?

Bots Agents that act like players possibly

How is AI used in games?

Bots Agents that act like players *possibly*

 Game Agents

How is AI used in games?

Bots Agents that act like players possibly NPCs Agents that act like characters

How is AI used in games?

Bots Agents that act like players *possibly* **NPCs** Agents that act like characters

 Game Agents

How is AI used in games?

Bots Agents that act like players possibly NPCs Agents that act like characters Directors Things that alter the game

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

How is AI used in games?

Bots Agents that act like players possiblyNPCs Agents that act like charactersDirectors Things that alter the game

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Examples:

 Design Space

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

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• How much damage does my bullet do?

 Design Space

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How much damage does my bullet do?

Examples:

- How much damage does my bullet do?
- How many coins do I need to collect?

CE810 GD2

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

How much damage does my bullet do?
 How many coins do I need to collect?

Design Space

Examples:

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

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

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

Design Space

CE810 GD2 -27-57-67-80 -28002 -29-8002 -20-8002 -20-8002 -20-8002 -20-800 -2 Player Experience

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

Definition

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

Why?

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

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

Why?

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 Understand differences in variations - is version A better than version B?
 Does a game have defects/exploits

- Understand **differences** in variations is version A better than version B?
- Does a game have defects/exploits

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Why?

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 Understand differences in variations - is version A better than version 87
 Does a game have defects/exploits
 Are there dominant strategies?

- Understand **differences** in variations is version A better than version B?
- Does a game have defects/exploits
- Are there dominant strategies?

Main Topics

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• Game Design Spaces

Game Design Spaces

Main Topics

Player Experience

- Game Design Spaces
- Player Experience

CE810 GD2 An Overview CE810 GD2 An Overview CE810 GD2 An Overview Main Topics

Game Design Spaces
 Player Experience

- Game Design Spaces
- Player Experience
- General Video Game Al

 Main Topics

Game Design Spaces
 Player Experience
 General Video Game Al

Game Design

- Game Design Spaces
- Player Experience
- General Video Game Al
- Game Design



Who are We?

Who are We?

Who are we?



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

CE810 GD2 2018-05-25 -Who are We?

 \square Who are we?





Admin Stuff

Admin Stuff

Structure

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2018-05-25

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Click the link and show them the timetable

• 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://celliofosslab.uk/timetable.html

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• Asteroids Experiment [10%]



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Full details on the module page.

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 - Search design space for target game



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- Game Design Hack [40%]



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 - Working game and brief description of how it works



Assessment

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 - List of parameters that could be modified



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- Player Experience Experiments [50%]



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 - \cdot Working game and brief description of how it works
 - $\cdot\,$ List of parameters that could be modified
- Player Experience Experiments [50%]
 - Final Presentation [10%]

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- Player Experience Experiments [50%]
 - Final Presentation [10%]
 - Presentation itself (pptx or pdf)



Ament

Asteroids Experiment [10%]

- Second design space for target game

Came Design Hack (40%)

- Working game and brief description of how it works

- Use of parameters that could be modified

- Blaver Daverience Experiments [50%]

· Presentation itself (pptx or pdf)

Full details on the module page.

- Asteroids Experiment [10%]
 - \cdot Search design space for target game
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 - \cdot Working game and brief description of how it works
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- Player Experience Experiments [50%]
 - Final Presentation [10%]
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 - Presentation given in week 2

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Second design space for target game

Game Design Hack (40%)

Working game and brief description of how it works

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Player Experiments Experiments (50%)

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Full details on the module page.

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- Player Experience Experiments [50%]
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 - Final Report [40%]

Full details on the module page.



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- Asteroids Experiment [10%]
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 - Final Report [40%]
 - Game variants

Full details on the module page.



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 - Reports (pdf)

Full details on the module page.



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