Course guides
804242 - GAM - Gamification

Last modified: 20/09/2021

Unit in charge: Image Processing and Multimedia Technology Centre
Teaching unit: 804 - CITM - Image Processing and Multimedia Technology Centre.
Degree: BACHELOR’S DEGREE IN VIDEO GAME DESIGN AND DEVELOPMENT (Syllabus 2014). (Compulsory subject).
Academic year: 2021  ECTS Credits: 6.0  Languages: Catalan, Spanish, English

LECTURER

Coordinating lecturer: Joan Arnedo
Others: Noemí Blanch

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
CEVJ 4. Identify and use gameplay mechanics and dynamics in non-gaming environments to enhance motivation, concentration, effort and loyalty in a wide range of sectors including education, marketing, business and health and sport.

Transversal:
04 COE N2. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 2. Using strategies for preparing and giving oral presentations. Writing texts and documents whose content is coherent, well structured and free of spelling and grammatical errors.
05 TEQ N2. TEAMWORK - Level 2. Contributing to the consolidation of a team by planning targets and working efficiently to favor communication, task assignment and cohesion.
06 URI N2. EFFECTIVE USE OF INFORMATION RESOURCES. Managing the acquisition, structure, analysis and display of information from the own field of specialization. Taking a critical stance with regard to the results obtained.
07 AAT N2. SELF-DIRECTED LEARNING - Level 2: Completing set tasks based on the guidelines set by lecturers. Devoting the time needed to complete each task, including personal contributions and expanding on the recommended information sources.
03 TLG. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.

TEACHING METHODOLOGY

The course is based on a very practical and experiential training based on the game from a triple perspective:

- The playful as a necessary varnish for training.
- The use of game elements in the design of the subject.
- The game and its dynamics as a starting point to work on the theoretical contents.

The theoretical contents are introduced by the teaching staff in conjunction with practical or analytical activities, where the student is the one who takes the initiative. In that sense, all classes are participatory and dynamic. Students intervene in their own class by carrying out activities, searching for information and raising doubts about the contents studied.

The theoretical contents are consolidated by carrying out two practical tasks, called challenges, which are of great importance within the subject. These are carried out during classes and, especially, autonomously from the guidance provided in class. The face-to-face classes are used as a coworking space where work teams receive feedback from both the teacher and the rest of the students.

It is worth emphasizing that this subject does not have a final exam (see section "grading system"). Due to its characteristics, the weight of the evaluation falls on the challenges and participation in class.
LEARNING OBJECTIVES OF THE SUBJECT

- Show understanding of the gamification concept and gamification techniques that are applied in different sectors and, be able to design a gamification process for a specific environment.
- Identify and use game mechanics and dynamics in non-playful environments in order to enhance motivation, concentration, effort, and loyalty in very diverse sectors such as education, marketing, business, and health or sports.
- Understand concepts and methods of psychology related to design.
- Use strategies to prepare and carry out oral presentations and write texts and documents with coherent content, an adequate structure and style, and a good level of spelling and grammar.
- Contribute to consolidating the team planning objectives, working effectively and favoring communication, the distribution of tasks, and cohesion.
- After identifying the different parts of an academic document and organizing the bibliographic references, design and execute a good advanced search strategy with specialized information resources, selecting the relevant information taking into account criteria of relevance and quality.
- Carry out the tasks assigned from the basic guidelines given by the professors, deciding the time that needs to be used for each task, including personal contributions and expanding the indicated sources of information.

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Hours medium group</td>
<td>30,0</td>
<td>20.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>18,0</td>
<td>12.00</td>
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<tr>
<td>Self study</td>
<td>90,0</td>
<td>60.00</td>
</tr>
<tr>
<td>Guided activities</td>
<td>12,0</td>
<td>8.00</td>
</tr>
</tbody>
</table>

Total learning time: 150 h

CONTENTS

What is gamification (and what isn't)?

Description:
Interpretation and definitions. Evolution of the term. What is a game? "Game" vs "play". Similar is not the same: toy, game, serious game, game-based learning, simulation, gamification and playful design.

Full-or-part-time: 14h
Theory classes: 1h
Practical classes: 2h
Guided activities: 1h
Self study : 10h

Psychology of Motivation

Description:
Description of the most relevant aspects of the psychological theories on motivation that serve as the basis for gamification. Extrinsic vs intrinsic motivation. Theory of self-determination. Flow cycles.

Related activities:
Challenge 1

Full-or-part-time: 20h
Theory classes: 3h
Practical classes: 4h
Guided activities: 1h
Self study : 12h
Types of players and the elements of gamification

Description:
The different classifications of the types of users and users or players in which to focus the design of gamification. Essential characteristics of each type. Classification and description of the gamification mechanics and elements available to the designer ("toolbox" approach). Link to the different types of players.

Related activities:
Challenge 1

Full-or-part-time: 18h
Theory classes: 3h
Practical classes: 2h
Guided activities: 1h
Self study: 12h

Ethical aspects of gamification

Description:
Ethical aspects of the psychology of motivation and the use of gamification. Reflection on cases in real life.

Related activities:
Challenge 1

Full-or-part-time: 7h
Theory classes: 1h
Self study: 6h

The design of gamification

Description:
Game Thinking techniques, think like Game Designer. Formal frameworks of the correct design of gamification in stages. The path of the users. Definition of objectives

Related activities:
Challenge 2

Full-or-part-time: 38h
Theory classes: 4h
Practical classes: 10h
Guided activities: 4h
Self study: 20h

Feedback and reward systems

Description:

Related activities:
Challenge 2

Full-or-part-time: 19h
Theory classes: 2h
Practical classes: 5h
Guided activities: 2h
Self study: 10h
### Storytelling and understanding the user's emotions

**Description:**
How to build "WOW!" Experiences Basic narrative structures. The wheel of emotions

**Related activities:**
Challenge 2

**Full-or-part-time:** 18h
- Theory classes: 1h
- Practical classes: 5h
- Guided activities: 2h
- Self study: 10h

### The implementation of gamification

**Description:**
How to create a balanced and balanced system. KPIs. System modeling. Measuring the results of the experience. Introduction to study and research methods: qualitative and quantitative approaches.

**Related activities:**
Challenge 2

**Full-or-part-time:** 16h
- Theory classes: 3h
- Practical classes: 2h
- Guided activities: 1h
- Self study: 10h
**ACTIVITIES**

### Challenge 1. Research about gamified projects

**Description:**
Gamification is a methodology that can be applied to a wide variety of contexts to achieve different goals. For this challenge, the work team must decide the thematic area (health, education, fitness, business, etc.) on which to investigate the existence of gamified projects.

Next, you must carry out an analysis of the project, covering the following points or sections:

- Objectives of the project regarding the user
- Target user(s) or user/player types fed
- Game elements or gamification used
- Actions to be motivated and specific interactions defined to achieve it
- Analysis of intrinsic vs extrinsic characteristics of the system
- Critical appraisal: pros and cons
- Ethical implications (if applicable)
- Proposals for improvement, justified

**Specific objectives:**
Develop the ability to analyze a gamified experience applied to an APP with mainly business objectives that implements various elements and gamification strategies. The exercise aims to familiarize the student with the identification and recognition of the structures that make up a gamification process, with the basic motivational factors and how these influence the complete design of an application.

**Material:**
- Notes of the subject
- Templates of the analysis activities carried out in class
- Bibliography of the subject
- Mobile device or computer

**Delivery:**
Document in which all the specified analysis elements are contemplated, following a similar scheme to the one that will be presented in class throughout different collaborative activities, although a specific template (free format) is not proposed.

They should also present their work in class. In one session, they should present to the rest of the class their proposal for the problem to be solved (brief, pitch format) in a way that anyone can understand. Before the delivery date, another presentation should be carried out summarizing the most relevant aspects of your analysis. Both actions will be part of the total evaluation.

**Full-or-part-time:** 20h 50m
  - Theory classes: 5h
  - Self study: 15h 50m
Challenge 2: Construction of a gamified project.

Description:
From a proposal carried out by the team itself (let's think about any problem or environment that it encounters in its day-to-day life), it must develop a gamification process, documenting and designing an interactive prototype that presents the main dynamics of the metagame and gamification.

The proposal must consistently implement a metagame that favors the retention and loyalty of its players. That metagame will have to incorporate gamification mechanics correctly interrelated with the objectives sought in a non-playful context.

Specific objectives:
Be able to abstract the key elements of the experience of a video game and combine gamification techniques that cooperate with the game's metagame. Understand the existing dependencies of the metagame, gamification and game design.

Material:
Tools:
- Game Design Lenses Card Deck by Jesse Schell
- SCVNGRs Secret Game Mechanics Playdeck by Zynga
- Deconstructor for fun BLOG by Michail Katkoff
- Periodic Table of Gamification Elements by Andrej Marczewski

Delivery:
Document with the gamification plan, metagame scheme with 'core-loop' and dependencies with the video game business model. Navigable prototype of the metagame and its gamification. A prototype of the system will be evaluated.

The work must also be presented in class. In one session, they must present to the whole class their proposal for the problem to be solved (brief, elevator pitch format), and at the end of the course, they must present a summary with the most relevant aspects of their solution. Both actions will be part of the total evaluation.

Full-or-part-time: 20h 50m
Theory classes: 5h
Practical classes: 15h 50m
GRADING SYSTEM

Practices:

- Challenge 1: Initial investigation of a gamified project, with a weighting of 30% of the final grade for the subject. The final evaluation of Challenge 1 is broken down as follows:
  - Presentation 1 (proposal): 5%
  - Presentation 2 (results): 10%
  - Final deliverable document: 15%

- Challenge 2: Construction of a gamified project, with a weighting of 40% of the final grade for the course. The final evaluation of challenge 2 is broken down as follows:
  - Presentation 1 (proposal): 5%
  - Presentation 2 (results): 10%
  - Final deliverable document: 25%

Midterm exam:

- 1 partial exam with a weighting of 20% of the final grade for the course.

Participation and learning attitude:

- With a weighting of 10% of the final grade for the subject.

Students who have failed the subject can take the re-assessment exam, regardless of the grade they have obtained (there is no minimum grade to be able to access, as long as the grade is different from NP). The qualification obtained in the re-assessment replaces, in case of being higher, to the grade obtained in the partial examination, that can suppose to allow to approve the course (always counting its maximum weight of 20% with regard to the total). In any case, if this option is chosen, the final grade of the subject, recalculated from the re-assessment exam, may not exceed 5.

BIBLIOGRAPHY

Basic:
- Flanagan, M. Critical play. Radical Game Design. Cambridge,

RESOURCES

Other resources:


