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DISTANCE LEARNING IN HEIS: STRENGTHENING SOCIALISATION ON VIRTUAL CAMPUSES

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Introduction

- Socialisation is a crucial factor in the learning process.
- However, socialising in online environments can be challenging and can lead to social isolation and course withdrawal.

(Loureiro, 2013)

Introduction

Virtual learning environments (VLEs) are:

- Online spaces implemented for educational purposes
- With resources to promote interaction between:
  - student; teacher; material; environment.
- Facilitate and assist the construction of knowledge.

(Dillenbourg, 2000)

Introduction

Virtual learning environments (VLEs) can:

- Spaces for information and socialisation
- Students are active participants in the learning process.
- These environments go beyond the boundaries of distance education by integrating multiple tools.
- Support the physical classroom and are represented.

(Dillenbourg, 2000)

Immersion

3 dimensions

(Agrawal et al., 2020; Morgado, 2022).

Design of virtual spaces for socialisation

- Flexibility
- Interaction
- Resource manipulation

However, how immersive environments support socialisation strategies is underexplored

(Pedrosa & Morgado, 2024).

Study goals

Examine

- Key considerations for the design of a virtual campus that favours the socialisation of e-learning and b-learning students

Developing

- Virtual environments

Analysing

- Virtual interaction

Premise: The more a person socialises, the more likely they are to acquire knowledge.

Methodology

Work-in-progress

- Literature review and analysis of various studies.
- Design-Based Research (DBR) methodology
- Design proposal for 3D immersive spaces in 2 virtual campuses of HEI institutions (Polytechnic Institute of Santarém and Polytechnic Institute of Beja).

Elements for Immersive Space Design

Concept

Context

Needs

Population

Interact

Explore

Carry out tasks

Avatars

Sense of presence

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Virtual space

- 3D was in certain areas of the School of Technology and Management (ESTIG).
- Students can interact, explore and carry out activities
- In room H20, which is a social space, and outside ESTIG.

IPBeja First Version

Interactive virtual space of ESTIG's H20 space

IPBeja First Version

Students can:

- Choose their avatar
- Create and modify dynamically
- Have a unique avatar within the virtual environment

Avatars

Considerations

The work needs improvement in immersive environments and data collection, exploring avatars' potential to enhance student presence and engagement.

In IPSantarém

Work-in-progress: e-Lounge

Virtual space

Let's start

- Exploration and analysis of immersive web environments (e.g., FrameVR, VRChat, Spatial) to meet the Institute's needs.
- Prototyping and developing a 3D environment with spaces for socialization, communication, and learning for all Schools of Institute.

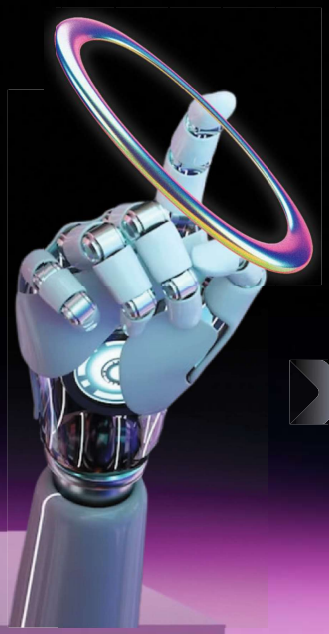
In IPSantarém

Work-in-progress: e-Lounge

Virtual space

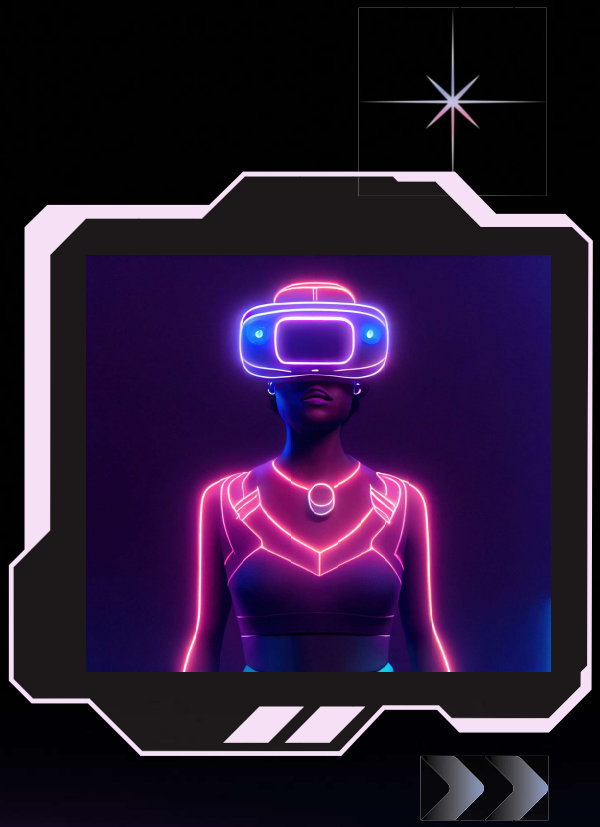
- 3D modeling of objects and elements to enhance user experience using Blender or Unity.
- Testing virtual navigation, assessing interaction and user experience.

Let's start



Future work

- Develop 3D spaces at the Polytechnic Institute of Santarém.
- Enhance ESTIG's virtual environment enabling access to immersive spaces with more use cases.
- Analyze student behavior in these virtual environments.



THANK YOU!

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