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POINT OF EQUILIBRITY

A SERIOUS VIDEO GAME ON MANAGING A PANDEMIC CRISIS

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INTRODUCTION

Serious games witness an increasing growth both in the game industry and academia in different application areas, such as communication, cultural studies and education [1]. Today, even more prevalent are games that combine the dissemination of information with efforts to introduce certain concepts, attitudes, behaviors, or different perspectives to their players [2].

As regards the latter, often cultural games draw from historical events and archaeological evidence to offer knowledge-making opportunities and perspective to their audiences [3]. The poster concerns the development of a serious video game called Point of Equilibrity (PoE) which is influenced by the recent and ongoing COVID-19 pandemic.

DESIGN ASPECTS

The core idea around POE was to create a system where peoples' happiness and the pandemic control would be sustained in a fragile equilibrium and this in turn would carve the story of the player throughout the game [4].

PoE is a serious game deeply affected from current sociopolitical developments and historical events, while it targets contemporary audiences of different backgrounds with the aim to nurture informed decision-making during times of crisis in a playful way. Through the simulated management environment, the player is required to make choices of the most fitting laws depending on the situation each time in order to keep the pandemic under control and the citizens content.

The decision-making approach in PoE is based on three main axes:
a) Political stability
b) Communication, as reflected on the choices made during regular press conferences
c) Information on historical pandemics

DEVELOPMENT/GAMEPLAY

Point of Equilibrity was created entirely in Unreal Engine 4 and thus, the development utilized visual coding. The main core of the game consists of a dialogue system, that is utilized exclusively through the User Interface and consists of many widgets that depend on one another. Most of the visual coding in the game is in widgets.

To achieve a stable performance, we have avoided using functions and events that are heavy frame dependant and instead we used timers that switch off when the desired effect has been achieved. Furthermore, everything runs through a system of flow control, either using a switch on integer, a multigate or a flip flop when it comes to the UI.

The game is entirely based on the players decisions. Most of the decisions consist of two law cards. The player will have to measure the situation through the bars progress and choose the most "fitting" law for the wellbeing of the country.

At the same time, a council bar was factored in order to reflect the political stability based on the player's decisions. Press Conferences are held after each decision is made. In fact, throughout the game there are certain events and consecutive decisions made by the player which affect the progress sytem and thus, the unfolding of the whole game experience.
In the end, the player will be held accountable for his mistakes or will be rewarded for his good management abilities.

CONCLUSIONS

Overall, the main contribution of the game lies in its thoughtful design offering to the players different perspectives on the complexity of managing a pandemic crisis. This way, it trains users to make informed decisions in the virtual and controlled environment as a simulation and learning experience for the real world. The game has already undergone a first round of evaluations based on which a new iteration of the game will soon be published.

REFFERENCES

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