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The positive impact of video games: a focus on games for anxiety relief

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Abstract

Video games, initially developed for entertainment, have found extended applications in various domains such as education, healthcare, and mental health therapies. While it is known that some games have characteristics that can lead to negative effects, others are adopted or specifically designed with the intent of providing benefits, such as improving cognitive skills, reducing stress, and supporting recovery in hospitalised patients.

This thesis explores the effects that video games can have on the physical, psychological, and cognitive side of players. A particular effort is made to derive a list of characteristics that trigger such effects.

Especially, a focus is made on characteristics that can be used to positively affect players supporting them in the management of anxiety. Such characteristics have been derived by analysing the available scientific literature and by harvesting players opinions from an online social media. A structured, multi-phase strategy was adopted to extract video games titles and characteristics out of player posts and comments. To expand the available dataset of opinions, a questionnaire for players, has been designed.

This thesis results in a list of video games, based on player preferences, and in a list of key design characteristics that game developers can consider when creating games aimed at supporting anxiety relief.

Abstract

I videogiochi, inizialmente sviluppati per l'intrattenimento, hanno trovato applicazioni estese in diversi ambiti, come l'educazione, la sanità e le terapie per la salute mentale. Sebbene sia noto che alcuni giochi possiedano caratteristiche che possono portare a effetti negativi, altri vengono adottati o progettati appositamente con l'intento di offrire benefici, come il miglioramento delle capacità cognitive, la riduzione dello stress e il supporto nella riabilitazione di pazienti ospedalizzati.

Questa tesi esplora gli effetti che i videogiochi possono avere sugli aspetti fisici, psicologici e cognitivi dei giocatori. Un'attenzione particolare viene data alla derivazione di un elenco di caratteristiche che scatenano tali effetti.

In particolare, viene approfondito il ruolo delle caratteristiche che possono influenzare positivamente i giocatori, supportandoli nella gestione dell'ansia. Queste caratteristiche sono state individuate attraverso l'analisi della letteratura scientifica disponibile e la raccolta delle opinioni dei giocatori da un social media. Per estrarre i titoli di videogiochi e le caratteristiche dai post e dai commenti dei giocatori, è stata adottata una strategia strutturata e articolata in più fasi. Inoltre, per ampliare il dataset di opinioni disponibili, è stato progettato un questionario rivolto ai giocatori.

Il risultato di questa tesi consiste in un elenco di videogiochi, basato sulle preferenze dei giocatori, e in una lista di caratteristiche chiave di video game design che gli sviluppatori possono considerare nella creazione di giochi mirati al supporto e al sollevo dall'ansia.

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