INTERAGAMES: Development of new models for interacting with video games to improve the leisure prospects and rehabilitation of people with functional diversity

Type of Project

Ongoing research project

Summary

The development of new models of interaction for people with functional diversity, using commercial videogames for all video consoles (Xbox, PS3, PC, Wii) through the development of an access system based on alternative, universal hardware that is customisable to the needs of the user.

Low-tech, high-tech products, services and contexts for play

A new interface platform between users with disabilities and the major games of the main commercial videogames platforms. The designed system enables the access to the different platforms on the market (Xbox 360, PS3, Wii and PC) and to any game, to the people who previously couldn't play, improving their entertainment prospects. The user doesn't have to learn how to use a new specific device, because they can still use the adapted mice or joysticks they usually use to access the computer or to control the environment. In addition, the system supports the added use of controllers which can be handled with different parts of the body as well as actions selected by pressing or by sweeping. The adaptation of the controllers and joysticks are complemented with the design of customizable software for each user and game. This allows the implementation of macros to assign a combination or a fast sequence of buttons by pressing only to one button, providing the access to the more complicated videogames actions.
The result is a device for people with disabilities to enjoy alone or with friends of the current videogames in the market.

The context of use

Home, school and rehabilitation center

Type of play in this play system

Cognitive

Rule play (including videogames)

Social

Solitary

Parallel

Objectives related to play according to ICF-CY

Play for the sake of play: Major life areas - d880 enagement in play

d8800 solitary play

d8802 parallel play

Community social and civic life - d920 recreation and leisure time

d9200 play

Play-like activities: Therapeutic and educational objectives

b2 Sensory functions and pain

Number of participants

5-10

Chronological Age

6-12 years

Development Age

6-12 years

LUDI Categories of disabilities

Physical impairments:

Explanation on the use of low-tech, high-tech devices, services or contexts

Explanation

Visual instruction with written language

Involvement

Adult: therapist/educator/researcher

Peer with disabilities

Role

Participatory observer

Evaluation of objectives and outcome measures

Description of outcome measure(s)

Observation by professional/researcher providing the play experience

Summary of achieved effects

ongoing

References to the intervention or research project

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Keywords

Videogames, functional diversity, interaction, users