Understanding the Digital Game Classification System: A Review of the Current Classification System and Its Implications for Use within Games for Health

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Abstract. This paper discusses and identifies the current video game classification systems employed throughout North and South America, Europe, Eurasia, Far East and Australasia. Ten main systems are employed, and although there are similarities, there are differences across the systems concerning: content descriptors, rating process and age categories. This paper proposes a series of recommendations for the classification of off-the-shelf games used by clinicians within the healthcare sector, for ease of use and clarity while implementing games for rehabilitation use. It is suggested; a worldwide classification system would facilitate a greater understanding and eradicate issues which occur by clinicians, support networks and patients utilizing this innovative approach to aid rehabilitation. For such a system to be established, a number of regional organizations, industry professionals, academics and end-users would be required to outline a format, and establish an appropriate system to be utilized.

Keywords: Classification System, Health, Rehabilitation, Digital Gaming.

1 Introduction

The use of off-the-shelf videogames is fast arising in popularity as a rehabilitation and training aid within many clinical environments. This entertainment medium, which during its short life span has quickly expanded in both hardware and software technology formats, initially perceived as a leisure pass time, [1] suggest this medium has the potential to assist people with rehabilitation. In recent years, several studies have been conducted to identify the suitable use and implementation of both commercial and high-end video game technologies for health issues such as rehabilitation of motor function following a stroke and fall prevention in older adults [2].

Conversely, a recent review focuses upon the utilization of current videogame console systems in the provision of training and rehabilitation programs to older
adults within their own homes. The review proposes several scenarios whereby the consoles have been used within a clinical environment. In particular, it concentrates upon the functional independence of older adults; injury and disability resulting from a stroke and fall and the additional opportunities provided by internet-enabled game consoles. Which in turn suggests this technology can serve a wider purpose for example; rehabilitation and training but also facilitate and improve the healthcare services distributed to older adults [2].

In addition to console-based videogames, online gaming environments such as Second Life [3] are providing positive approaches to psychological rehabilitation, for example with soldiers returning from war zones and are suffering from post-traumatic stress disorder (PTSD). The environment can aid soldiers and their families to understand the causes and symptoms [3-4]. Likewise, exergames have shown to be a positive facet in combating subsyndromal depression (SSD), based upon a 12-week intervention utilizing the Nintendo Wii™ Sports, 35 minutes per session, three times a week. The respective authors reported the results displayed a substantial improvement towards ‘depressive symptoms, mental health-related quality of life, and cognitive performance’. However, the results did not show an improvement towards the ‘physical health-related quality of life’ [5]. To ascertain and build upon the initial findings, the researchers stipulate further investigation is required via randomized control trials [5]. The studies which have been reported in the respective review [1] do not outline the specific segments of the games which have been the most beneficial for health rehabilitation in the respective studies.

The method of interaction is varied in current game technologies and has enabled both proficient and novice users the opportunity to experience new forms of gaming into their lives. Due to the nature of the consumer markets, this has motivated development companies to identify innovative approaches to enhance videogame interaction which has led to the integration of leading-edge elements such as; video capture and inertial sensing devices which have the capability to measure physical movement of individuals. Until recently, such technology could only be found in expensive and dedicated laboratory facilities. It is becoming evident that the use of off-the-shelf game technology within the health sector [see 1] is going to increase, in particular with users unfamiliar with such modes of interaction. There is a possibility that health consumers, their personal and clinical support networks may lack a full understanding of video game technology and how it may best be applied to healthcare.

The aim of this review is to provide an outline of videogame technology that has hitherto been neglected in the games for health literature, that being the classification of commercially available videogames. This review outlines the history, development and procedures undertaken by the 10 rating systems currently in use across three regions (North and South America, Europe, Eurasia, Far East and Australasia). Following this, recommendations are proposed offering guidance for the development of a rating system that will be appropriate for the classification of video games for use in health-related contexts across all regions.