CONSIDERATIONS IN DESIGNING GAMES[1] FOR OLDER PEOPLE

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ABSTRACT

Games have been around for the last 30 years. However, a majority of older people aged 50 and above are not drawn to playing games. We investigate whether older people would be interested in playing games and if not, what changes are needed to accommodate the older player.

Keywords

Games, Older people, Design

1. INTRODUCTION

Changes in the world population indicate that there will be a greater number of older people in the next 50 years than there have been in the last 50 years. Europe has been highlighted to be one of the areas where population ageing will be most significant [5]. In the UK, although a considerable proportion of older people are in the low income groups, many have high disposable incomes [1] with people aged 50-64 on average earning £60 (gross) more a week than the average individual [2].

These figures point towards a potential gap in the leisure market for older adults. If a better consumer offer targeted older people, in the form of goods and services that could enhance their quality of life and offer increased opportunities for enjoying the considerable free time at their disposal, then older people might be encouraged to spend more [1]. To investigate the requirements of such an offer, research into older adults and gaming is being investigated at the University of Abertay, as part of the UTOPIA Project [6]. These requirements could offer games publishers information to expand their consumer base.

Currently, older people take up leisure activities such as watching television, physical activities, needlework, reading books or participate in community activities [2]. The motivation behind these activities is either to keep themselves busy, to be socially included, to keep themselves mentally alert or just to have some fun. Games can fulfil these functions, but will older people be keen to play existing games or would game developers have to adapt games to suit them? This paper investigates this question and reports our findings on a games workshop, discussing possible considerations in designing games for older people and further areas to investigate.

2. GAMES WORKSHOP

A games workshop was carried out by the UTOPIA Project to ascertain older people's preferences for interfaces in general. We chose to test this by asking older users to play computer and console games. We invited older computer users from our database of users to attend our workshop. 11 people attended, 8 were females and 3 were males and their ages ranged between 50-84 years. Data was captured using a general questionnaire and audio and video recording. 3 console games and 5 computer games were available to play with. The console games, which were available, are Super Monkey Ball, Crazy Taxi and The Weakest Link. The computer games that were available are

- Neverhood™ (a clay adventure game) [4],
- SimTunes™ (a paint program which is also a musical composition program),
- Jill of the Jungle (a 2D action game) and
- Loop (a looping game from Shockwave) [3]

Before playing commenced, most users were shown how to use certain functions or given a demonstration. Although we expected results in the area of interfaces, we also found salient results for games research. Below is a summary of our findings.

2.1 Navigation

Participants encountered problems attempting to navigate and did not understand where they had to go in the game or if they were going the right way. In these instances, some participants preferred human help with few willing to learn via trial and error.

Virtual world games assume that players will figure out where to go and what to do by trial and error. This assumption may not hold true for older people whom may just want to move on in a game to yield successful results.

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[1] Games in this paper refer to computer, console and video games.

2.2 Feedback

Whilst playing the games, participants did not expect to receive aural feedback to their actions. This led participants to claim there wasn't enough feedback to the games. At times, even when they recognised feedback, participants did not know what to do thereafter. In one game, participants tended to repeat the same movements without seeing the connection between their actions and results.

Alternative forms of feedback should be offered for older players, so they can see and hear the feedback of their actions. In addition, tips should be offered on screen as to what players should do next.

2.3 Interfaces

Many interface issues were raised. Participants encountered difficulty in keying two buttons at the same time for a complicated manoeuvre. Participants also had problems using thumbsticks on joypads for console games. Some of the observation results point to the fact that the keyboard was not the most suitable input interface for the users.

Numerous alternative interfaces are available for different games, such as steering wheels, dance mats and EyeToy^{TM} featuring a camera interface. Given the option, older players may prefer them to standard interfaces. This is an area that warrants further investigation as it is possible that, like using a mouse, once older users are given time to familiarise themselves with an interface, they may not have any problems using it.

2.4 Game Design

Many participants failed to understand the concept/objective of the game, having to collect items, points, having another life, different levels, etc. For example, one participant avoided a knife because she thought it could be used to hurt the character in the game, rather than help it. A different sense of logic and perception exists in the game world, one which older players are not familiar with. Until older players grasp this concept, older players may prefer to play games that mirror activities in their life such as a sport or driving game.

2.5 Perception of Games

Most participants came with negative perceptions of games. One participant assumed that games were played by teenage boys who had nothing better to do. Others thought it was expensive and a waste of time. Despite these perceptions, participants' attendance and interest in playing games at the workshop suggested an openness and interest in exploring games further.

Some participants showed inconsistency in their answers and behaviour. In one instance when 3 participants were asked individually whether they enjoyed playing console games, they denied any enjoyment, despite the fact that they were captured on video laughing and smiling whilst playing.

3. CONCLUSION

The games that were chosen for this workshop limited itself to reality and quasi-reality games with realistic tasks and outcomes. This was to ensure that older players could relate to content in the games.

Once most participants learned the basics, they began to enjoy playing the games offered. Some participants commented that playing a game would be good practice in learning how to use a mouse.

We have identified issues that are relevant for the older player. Further studies needs to be conducted into older people's perceptions of games and game playing and what may motivate them to play games. By doing so, we may be equipped to change negative perceptions and include older people into the existing gaming population.

4. ACKNOWLEDGEMENTS

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