RHYTHMIC TRANSITIONS DURING GAME PLAYING SESSION: A CASE STUDY OF MALAYSIAN GAMERS

MUHAMMAD FADHIL WONG BIN ABDULLAH

THESIS SUBMITTED IN FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE DOCTOR OF PHILOSOPHY (DIGITAL GAMES)

FACULTY OF ART, COMPUTING AND CREATIVE INDUSTRY
UNIVERSITI PENDIDIKAN SULTAN IDRIS

2016

ABSTRACT

This research investigates the actions of gamers during the in-game cut-scenes transitions and how they adapt in multiple higher level actions during their game playing sessions. Drawing on Mediated Discourse Analysis and Multimodal Interaction Analysis, the exact lower-level action - pressing a button and higher-level action - playing a game provides important insights throughout the entire video game playing session obtained through video ethnography method. Video data of 5760 minutes were collected over a period of twelve weeks from four participants. Videos transcription and multimodal transcript were utilized to further explain the complex interaction between the video gamer and the video game playing. The term 'Rhythmic Transitions' was derived from this research which explains the switching over from the primarily focused attention away during cut-scenes provided us with a perfectly linked and synchronized rhythm of actions. Findings provide important insights to games' developers to have a better understanding and able to utilize transition period during cut-scenes in order to create a better game playing experiences to the gamers.

PERALIHAN BERIRAMA KETIKA SESI PERMAINAN VIDEO: KAJIAN KES PADA PEMAIN PERMAINAN DIGITAL DI MALAYSIA

ABSTRAK

Kajian ini menyelidik aksi yang dilakukan oleh pemain permainan digital ketika sesi peralihan tayangan adegan sunting dan melihat bagaimana mereka menyesuaikan diri dalam pelbagai aksi peringkat tinggi ketika sesi permainan tersebut. Berpandukan metodologi Analisis Wacana Pengantara (Mediated Discourse Analysis) dan Analisis Interaksi Multimodal (Multimodal Interaction Analysis), setiap aksi peringkat rendah - menekan butang pada alat pengawal dan aksi peringkat tinggi - bermain permainan digital dapat memberikan maklumat yang penting melalui beberapa sesi permainan yang dikumpulkan menggunakan kaedah video etnografi. Data video berdurasi selama 5760 minit telah dirakam sepanjang tempoh dua belas minggu bersama empat orang peserta. Transkripsi video dan transkripsi multimodal membantu menerangkan interaksi kompleks di antara pemain permainan digital dan permainan digital mereka. Terma peralihan berirama (Rhythmic Transitions) telah diperolehi daripada hasil kajian ini. Peralihan berirama ini menerangkan bagaimana peralihan fokus perhatian utama ketika berlakunya adegan sunting yang mana peralihan tersebut berlaku dalam satu keadaan yang saling berkait diikuti dengan rentak yang berirama. Hasil kajian ini membolehkan pembangun permainan digital memahami dan merekabentuk pengalaman permainan digital yang lebih baik khususnya ketika peralihan fokus utama bagi tayangan adegan sunting.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

CGI	Computer generated images
DRS	Digital replay system
DVD	Digital versatile disc
GDC	Games Developers Conference
GDI	Global Defense Initiative
GPS	Global positioning system
FPS	First person Shooter
PC	Personal computers
LCD Monitor	Liquid crystal display monitor
LCD TV	Liquid crystal display television
MAS	Malaysian Airlines System
MDA	Mediated Discourse Analysis
MIA	Multimodal Interaction Analysis
MIT	Massachusetts Institute of Technology
MMORPGs	Massively multiplayer online role-playing games
MMU	Multimedia University
MSDs	Musculoskeletal disorders
NOD	Brotherhood of Nod
PDA	Personal Digital Assistant
RTS	Real Time Strategy
SMS	Short message service
TBS	Turn-based strategy

TV	Television
UPSI	Universiti Pendidikan Sultan Idris
UKM	Universiti Kebangsaan Malaysia
USB	Universal serial bus
VGA	Video graphics array
WCG	World Cyber Games

LIST OF APPENDIX

CHAPTER 1

INTRODUCTION

1.1 Introduction

This research investigates the actions of gamers during transition between video game playing and in-game cut-scenes. It demonstrates attentions shift during the transition period among video game players. The study will further analyze how these video gamers adapt in multiple higher-level actions during their long video game playing sessions. Each participant that involved with this research study could be seen shifted

and changing their primarily focus attention away from their video game play whenever there was an in-game cut-scene transition moment. Most importantly, the switching over that could be seen further in the analysis section does provides the study with a perfectly linked and synchronized rhythm of each participant playing their video game; this is how, later in this study the researcher came up with term: rhythmic transition. By adapting a research method called Multimodal Interaction Analysis (MIA) by Norris (2004, 2011a), this study provides further explanation on the complex interaction between the social actor (gamer) and mediational means (video game). As such the findings in this research study provides significant insights to games developers to have a better understanding of the transition period during in-game video cut-scenes thus allowing them to create a better game play in their future video games design.

According to Lindley (2005) cut-scenes are sequences of non-interactive animation and pre-rendered video. Meanwhile, Dunniway and Novak (2008) considered cut-scenes as interactive and it helps keeping the game player engage to their game play and not only that, these cut-scenes are far more exciting comparing to watching a movie. Such cut-scenes usually appear as introductions, but are also shown after certain missions or once objectives are completed (Juul, 2001). In general, game developers utilize in-game cut-scenes as an intermission in between game missions. They also applied cinematic techniques in these cut-scene creations so that the video game session is more appealing and fun to the video gamer (Dunniway & Novak, 2008). Jones (2008) explained that cut-scenes define the rhythm of game play too since these cut-scenes does helped keeping the game player engaged to their video game play. Not only that cut-scenes also provided video gamers an overview of what is going to happen

at the beginning of their video game play. When video gamers completed their earlier missions or objectives, an ending cut-scene is shown to them as a token of satisfaction!

Vorderer, Hartman and Klimmt (2003) has pointed out past and future research should have look far beyond the element of competition as other factors may have an important role when it comes to video game enjoyment. He then suggested that researchers should instead look at psychology of play as a framework for research on media entertainment. Furthermore, he pointed out that communication and psychology researchers has overlooked on computer and video games. These researchers failed to look into user's experiences and its effects on the user and community. Thus, future research should look into why a game is so entertaining, why it is so attractive and the effects of playing as well since there are rarely studied. While Cornett (2004) points out software and web usability studies have been conducted in recent years, there are still plenty of study opportunities and more work is needed on the usability of video games.

1.2 Background of the research

Technology in video gaming consists of hardware and software; hardware is the game machine itself and software is the games. Technology in games is progressing at a tremendous rate (Vorderer, Hartman & Klimmt, 2003). According to Fullerton (2014), the global video games industry contributed US$66 billion in the year of 2013 and it has been forecast that this figure is projected to rise to US$78 billion in 2017. Video games have flourished into something very popular and many people are considering it

as a leisure activity over the past decade (Lemay & Maheux-Lessard, 2012). In reality, it has now gone mainstream and video games are now aiming at new audiences (Lemay & Maheux-Lessard, 2012). Marshall, Ward and McLoone (2007) concluded that video games available on the next generations of game consoles are capable of offering us with unseen entertainment experiences. Vorderer, Hartman and Klimmt (2003) further explained the most recent popular games are able to offer us not only stunning images but they also provide us the realism in gaming through technical capabilities in current game platforms. One very good example is Microsoft Xbox 360 that is capable in providing us with stunning visual and audio presentation. As of March 2013, Microsoft Xbox 360 video games consoles hit US$77.2 million worldwide sales (Fullerton, 2014). The video games console of today is equipped with amazing graphics abilities and processing power. As such video game developers are able to create dramatic experiences within video games resembling what have been done in the television and film industries (Fullerton, 2014).

There are some disadvantages in a console environment comparing to Personal Computers (PC). Gee (2003) explains that a person who plays video games on game platforms such as Playstation, Nintendo Gamecube or Xbox will need to use the handheld controller which comes with limited buttons and built-in joystick. These handheld controller are having limited number of buttons on them comparing to PC where you will get to make full use of the video game controls using the mouse and keyboard. Moreover, in a console environment it does not have a similar keyboard as in PC. It was noted by Marshall, Ward and McLoone (2007) game controller configuration was developed through a number of key advances throughout a few series of generations in the game industry. According to Gee (2003) it is not surprising;

platform-game or console game players consider using a keyboard as a bad way to play video games and computer-game players think the opposite way.

According to Kane (2004), each key gives and initiates different action in a first person shooter game such as Counter Strike while the mouse itself has two functions; aim and fire a weapon. Thus, it makes us quick in physical response and provides us with the understanding about an interface and makes us familiar with the simulated environment (Galloway, 2004).

Controls on a handheld controller have their own controls system thus a person who is using it to play a game must learn to use the controller (Gee, 2003) to be able to fully enjoy their game playing session. The number of hours the gamers spend on playing games makes them close to the machine. Action, doing, pressing buttons and controlling are considered as physical inputs as defined by Galloway (2004). All these inputs are constantly needed from a gamer during game play since a game is an active medium hence requiring a full level of focused attention.

According to Scollon (1998, 2001), social action is the primary focus in Mediated Discourse Analysis (MDA). In MDA, mediated action is the unit of analysis (Norris & Jones, 2005, Scollon, 2001). It is necessary to analyzed both social actor and the mediational means when using mediated action as a unit of analysis (Norris, 2009). Jones and Norris (2005) define mediated actions as a social actor taking action through mediational means. The researcher will study each player's gaming progress and looking at their lower-level and higher-level actions while playing a Real Time Strategy (RTS) since many consoles strategy games are ports of their PC counterparts. RTS

actions are designed to be managed with the precision controls of a keyboard and mouse which were then shoehorned onto a controller with a limited number of buttons and a slower on-screen navigation (IGN Xbox 360).

Meanwhile, Apperley (2006) pointed out that strategy genre it can be split into two subgenres; Real Time Strategy (RTS) and Turn-based Strategy (TBS). Although both RTS and TBS are in two different subgenres, both still have one similarity which is both genres allow its player to have a god's eye-view during game play. In other words it means you look at the playing field from the top eye-view. RTS consists of two major aspects of control during game play; structure control and unit control. Structure control is where a player selects his or her building and units that need to be built and upgraded. The same goes for technologies where he or she needs to make decision and upgrade them. Unit control consists of three sub-categories; building, exploration and combat. The building sub-categories do overlap with structure control where you are managing your workers to collect resources and build structures. Next, the exploration sub-categories are where a player navigates and explores the game map to find the enemy unit. Lastly, combat is where a player commands their units to kill enemy units, defend their own base and capture enemy base (Claypool, 2005).

Due to a long period of game playing session, both RTS and TBS utilize cut-scenes in their introduction, at the end of every missions or once objectives are completed. Generally, game developers utilize in-game cut-scenes as an intermission in between game missions. Although, cut-scene is not merely considered as the main component in gaming experiences, it does serve its own purposed.

1.3 Problem statement

In the past few decades, we have witnessed an increase in research of computer and video games. According to Chen (2013), video games have been a subject of serious research in the last decade even though video games have been a part of home entertainment for more than thirty years. A growing number of research studies have been conducted looking at video game players' experiences in video games using various frameworks and methodologies with the increasing popularity of video games (Lemay & Maheux-Lessard, 2012). As pointed out by Myers (2006), the commercial success and huge revenue in the current video games industry, drives more academic interest in games and game studies. Console and hand-held games are currently the most popular types of electronic play according to Salonius-Pasternak and Gelfond (2005).

Most of the research conducted on electronic games studies the negative impacts on children and adults (Salonius-Pasternak & Gelfond, 2005). Crawford (2012) further added video games are commonly portrayed as an isolating and anti-social activity among our society. Video gamers are thought to be confining and dedicating themselves to their video game playing session. Video games players are seen as a group of people who have the tendency of violent or aggressive behavior is another common public view on video games gamers. Not only that, society also perceive video gamers as addicts due to their long hours of video game playing (Crawford, 2012). However, according to Chen (2013), Gosling and Crawford (2011), current research studies are more focusing onto the complex interactions between video game players and their

video game playing session. Recent studies are no longer confining only to elements of violence and the media effects theory in video games. McAllister and White (2012) has pointed out subject of evaluating video game player's experience is attracting further attention from both academicians and game developers.

Due to the fact that the researcher has both, personal and academic interest on video games studies, this study has eventually expanded by focusing on the interaction of gamer while they are playing their video games. Therefore, it allowed the researcher to study the actions of each gamer in adapting to the game and their action during the in-game cut-scene transition moment. Some video gamers continue playing their game so that they could enjoy the cut-scene videos available in the game. The researcher, for himself as a gamer will always try his best during his own game-playing session, struggle to overcome each mission objective so that he will be able to watch and enjoy the next in-game cut-scene video. Moreover these cut-scenes will help the gamer have a better understanding of the actual storyline that the game developer would want the gamer to experience.

Meanwhile, some other gamers are less interested with such cut-scenes video and they tend to hit the 'skip button' to skip whatever in-game cut-scenes videos shown to them. They just want to continue with their game playing session without wasting any time and do not even bother with those cut-scenes. Commonly, in-game cut-scene videos in a video game, the gamer is given an option to remain on the game play screen

and watch the cut-scene videos displayed on their screen or he or she will have the option provided the game developer to skip the whole cut-scenes sequence.

This research looks at action of each gamer during the transition between video game playing and in-game cut-scenes. It demonstrates attentions shift during the transition period (see Conceptual Framework, Figure 1.1). This study derived from two main models; Mediated Discourse Analysis (MDA) and Multimodal Interaction Analysis (MIA) proposed Scollon (1998) and Norris (2004, 2011a), which both are focusing on the actions performed by the gamers throughout their game playing sessions.

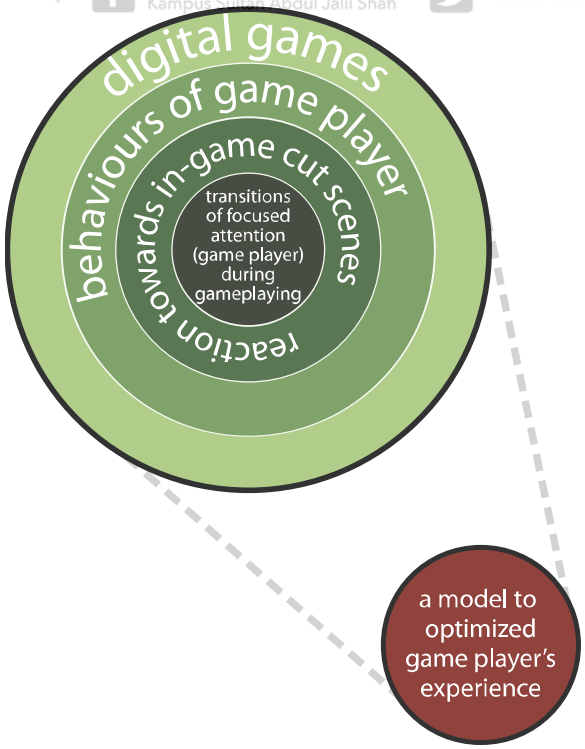

Figure 1.1. Conceptual framework

These models (MDA and MIA) provide an important insight to game developers allowing them to enhance the gamers' experience. Based from these two models, this study will further explore on the actions that the gamers performed during the in-game cut-scenes. Vorderer, Hartman and Klimmt (2003) insisted that future research in game studies should look into why a game is so entertaining, why it is so attractive, and what the effects of playing actually are. Melissinos and O'Rourke (2012) pointed out there are plenty of things someone could do with video game since it has become so massive now.

According to Scollon (1998, 2001), social action is the primary focus in Mediated Discourse Analysis (MDA). In MDA, mediated action is the unit of analysis (Wells & Wong, 2012, Norris & Jones, 2005, Scollon, 2001). It is necessary to analyze both social actor and the mediational means when using mediated action as a unit of analysis (Norris, 2009). Jones and Norris (2005) define mediated actions as a social actor taking action through mediational means. The researcher will study each player's gaming progress and looking at their lower-level and higher-level actions while playing a Real Time Strategy (RTS) since many consoles strategy games are ports of their PC counterparts. RTS actions are designed to be managed with the precision controls of a keyboard and mouse which were then shoehorned onto a controller with a limited number of buttons and a slower on-screen navigation (IGN Xbox 360).