TREASURE HUNT 2D MISSION GAME

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FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
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DECLARATION

I hereby declare that this project report entitled

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is written by me and is my own effort and that no part has been plagiarized without citations.

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DEDICATION

I dedicate special thanks to my parents who giving me support and motivation throughout my PSM. This dedication are also to my PSM supervisor, Mr Muhammad Haziq Lim for the consultation, advices, comments and support just to make sure that I can finish this PSM successfully. I also want to thanks to all my friends that always are by my side as I working on this project.

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ACKNOWLEDGEMENT

Firstly, thanks to Allah for given me a chance and strength to me for finishes this PSM until the end.

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ABSTRACT

This project is called Treasure Hunt 2D Mission Game and developed based on some places in Melaka Tengah. This game will advertise local culture and places as Melaka Clocktower. This project is developed a game that contain a cultural value and non-violent issues. This project's target user is to people aged from 20 to 25. This game was developing using Three-Stage Iterative Development Process as a development methodology. An AI technique such as Fuzzy Logic was implement in this game as a decision making for the game. This project will be deliverable in CD as a merchandise for tourist that visiting Melaka. It also will be in stand alone computer that will be placed in tourism spot such as museum or zoo as to promote the Melaka.

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ABSTRAK

Projek ini dinamakan sebagai Treasure Hunt Mission Game dan ia dibangunkan berasaskan beberapa tempat di Melaka Tengah. Tujuan permainan ini dibangunkan adalah untuk mendedahkan dan mengiklankan budaya dan tempat di sekitar Melaka Tengah dan antara contoh tempat yang terkenal ialah Melaka Clock Tower. Projek permainan komputer ini dibangunkan berteraskan permainan yang mempunyai unsue-unsur budaya tempatan dan tidak mempunyai elemen keganasan. Projek permainan komputer ini disasarkan kepada golongan remaja terutamanya yang berumur dintara 20 tahun hingga ke 25 tahun. Projek ini dibangunkan dengan menggunakan Three-Stage Iterative Development Process sebagai methodology pembangunan projek. Dalam membangunkan projek ini, teknik AI bernama Fuzzy Logic diimplementasikan sebagai pembuat keputusan bagi permainan komputer ini. Permainan Treasure Hunt ini akan di modulkan dalam bentuk cakera padat dan akan dijadikan sebagai cenderahati kepada pelancong-pelancong yang melawat Melaka..

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TABLE OF CONTENTS

CHAPTER	SUBJECT		PAGE
	DECLARATION		ii
	DEDICATION		iii
	ACKNOWLEDGEMENTS		iv
	ABSTRACT		v
	ABSTRAK		vi
	TABLE OF CONTENTS		vii
	LIST OF TABLES		xi
	LIST OF FIGURES		xii
CHAPTER I	**INTRODUCTION**		
	1.1	Project Background	1
	1.2	Problem Statement(s)	3
	1.3	Objective	5
	1.4	Scope	6
		1.4.1 User Scope	6
		1.4.2 Player Scope	6
		1.4.3 Module	6
		1.4.4 Game Environment Scope	7
		1.4.5 Game Language	7

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	1.5	Project Significance	7
	1.6	Conclusion	8
CHAPTER II	**LITERATURE REVIEW AND PROJECT METHODOLOGY**		
	2.1	Introduction	9
	2.2	Domain	12
		2.2.1 Action Games	13
		2.2.2 Adventure Games	13
		2.2.3 Role-Playing Games	14
		2.2.4 Strategy Games	14
		2.2.5 Simulation Games	15
		2.2.6 Vehicle Games	15
		2.2.7 Puzzle Games	16
		2.2.8 Sports Games	17
	2.3	Existing System	17
		2.3.1 Comparison of Existing System	21 14
	2.4	Project Methodology	24
	2.5	Project Requirement	25
		2.5.1 Software Requirement	25
		2.5.2 Hardware Requirement	26
	2.6	Conclusion	26
CHAPTER III	**ANALYSIS**		
	3.1	Current Scenario Analysis	27
	3.2	Requirement Analysis	33
		3.2.1 Project Requirement	33
		3.2.1.1 Requirement Gathering	34

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		3.2.1.2 Technical Analysis	42
		3.2.2 Software Requirement	44
		3.2.3 Hardware Requirement	45
	3.3	Project Schedule and Milestone	47
	3.4	Conclusion	49
CHAPTER IV	**DESIGN**		
	4.1	Introduction	50
	4.2	System Architecture	52
	4.3	Preliminary Design	53
		4.3.1 Storyboard Design	53
	4.4	User Interface Design	59
		4.4.1 Navigation Flow	59
		4.4.2 Input design and Output Design	61
		4.4.3 Metaphors	62
		4.4.4 Template Design	63
		4.4.5 Media Creation and Integration	64
	4.5	Conclusion	64
CHAPTER V	**IMPLEMENTATION**		
	5.1	Introduction	65
	5.2	Media Creation	66
		5.2.1 Production of Texts	66
		5.2.2 Production of Graphic	67
		5.2.3 Production of Audio	69
		5.2.4 Production of Animation	70
	5.3	Media Integration	72
	5.4	Production Configuration	72

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		Management	
		5.4.1 Product Environment	72
	5.5	Implementation Status	73
	5.6	Conclusion	75
CHAPTER VI	**TESTING AND EVALUATION**		
	6.1	Introduction	77
	6.2	Test Plan	77
		6.2.1 Test User	77
		6.2.2 Test Environment	77
		6.2.3 Test Schedule	79
		6.2.3 Test Strategy	79
	6.3	Test Implementation	80
		6.3.1 Test Description	81
		6.3.2 Test Data	82
		6.3.3 Test Result and Analysis	87
		6.3.4 Analysis Testing	89
		6.3.4.1 Analysis Testing In Overall	91
	6.4	Conclusion	92
CHAPTER VII	**PROJECT CONCLUSION**		
	7.1	Observation On Weaknesses and Strengths	93
	7.2	Proportions for Improvement	94
	7.3	Contribution	95
	7.4	Conclusion	95
	REFERENCES		96
	BIBLIOGRAPHY		97
	APPENDIX		

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LIST OF TABLES

TABLE	TITLE	PAGE
2.1	Comparison Of Games	23
3.1	The Activity Progress On The Treasure Hunt Action Games	47
5.1	Text Production In Treasure Hunt Game	66
5.2	Implementation Status Of Module In Treasure Hunt Game	73
6.1	Hardware Requirement For Testing	78
6.2	Software Requirement For Testing	78
6.3	Test Schedule Activity	79
6.4	Table Of Expected Result For Each Module	81
6.5	User's Level Of Satisfaction And Description	82
6.6	Game Design Testing Result	83
6.7	Game Navigation Testing Result	84
6.8	Game Play Testing Result	85
6.9	Game Audio Testing Result	86
6.10	Test Result And Analysis For Game Design Testing	87
6.11	Test Result And Analysis For Game Navigation Testing	87
6.12	Test Result And Analysis For Game Play Testing	88
6.13	Test Result And Analysis For Game Audio Testing	88
6.14	The Average In Category	91

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LIST OF FIGURES

DIAGRAM	TITLE	PAGE
1.1	Growth Of The Game Sales In The United State Since 1996 Based On Figures Provided By Electronic Software Association (ESA)	4
2.1	National Crime Victimization Survey Violent Crime Trends, 1973-2005 in US According To Bureau Of Justice Statistics In United State Of America	11
2.2	Super Contra	15
2.3	Mario Bros	19
2.4	Call Of Duty	20
2.5	Three-Stage Iterative Development Process	24
3.1	The Topology of Super Mario Bros by Ethan Hein	30
3.2	Call of Duty Screenshot	33
3.4	Rainbow Islands	38
3.5	Defender	38
3.6	Mario Bros Environment	40
3.7	Sketch of Treasure Hunt Environment	41
3.8	Mario Bros Gameplay Navigation Flow	41
3.9	Treasure Hunt Gameplay Navigation Flow	42
3.10	Universal Serial Bus (USB) Double Joystick	43
3.11	Keyboard	43
4.1	Game Architecture	52

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DIAGRAM	TITLE	PAGE
4.2	The Storyboard Design from Scene A001 to Scene A002	54
4.3	The Storyboard Design from Scene B001 to Scene B003	55
4.4	The Storyboard Design from Scene B004	56
4.5	The Storyboard Design from Scene C001 to Scene C003	57
4.6	The Storyboard Design from Scene C004	58
4.7	Treasure Hunt Game Navigation Flow	60
4.8	Treasure Hunt Game Screen	61
4.9	Design of Building in Treasure Hunt Game	62
4.10	Template for the Project	63
5.2	Image Before and After Editing Process in Adobe Photoshop CS3	68
5.3	Diagram Show The Graphic Using Technique Rotoscoping	68
5.4	Diagram the audio production	69
5.5	Diagram production of animation in object animation	70
5.6	Motion Tween Technique Using Adobe Flash CS4	71
5.7	Armature Or Bone Technique Using Adobe Flash CS4	71
5.8	Process of the Media Integration	72
6.1	The Graph of Game Design Testing Results	89
6.2	The Graph of Game Navigation Testing Results	89
6.3	The Graph of Game Play Testing Results	90
6.4	The Graph of Game Audio Testing Results	90
6.5	The Graph of Overall Testing Result	92

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CHAPTER I

INTRODUCTION

1.1 Project Background

The phrases of video game and computer game are often used interchangeably. Typically there are a screen such as television, monitor, LCD through which the game is viewed. Input devices vary depending on the game and hardware, but usually involve a controller, joystick, keyboard or keypad. Essentially, most video games can be viewed as simulations of some form. Realism-based simulations include contemporary car racing games, business simulations, sports, combat and civilization development games. More abstract simulations involve adventure, fantasy, and space battle games, although realistic graphics and physics-based effects are used in many of these games. Other simulations include puzzle games such as Tetris, and conversions of traditional games such as Scrabble, Monopoly and crosswords.

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The computer and video game industry has only recently burgeoned into one that rivals the film industry in terms of consumer spending. In the United States alone, the games industry reported about $6.9 billion in sales in 2002, and sales increased to $7 billion in 2003 and $7.3 billion in 2004. Increased sales have also led to increased competition among games developers, as they vie for a share of the growing wealth. Because higher-quality games tend to sell better, game developers are increasingly looking for ways to improve their games. This also happened in our country Malaysia. There bunch of organization ready to invest in game industry such as MDeC (Multimedia Development Corporation).

This project is to develop 2D action game that will advertise local culture and places in some part of Melaka. Developing this type of game will require research in all aspect of multimedia in using Adobe Flash such as action script, navigation, contents and others that will be use for multimedia industries. The project is to develop the Action type of game using Adobe Flash and the game title is Treasure Hunt. This project is mainly about advertising by using a game.

Treasure Hunt is 2D action game mission is to search for the treasures that still remain in some of places in Melaka. Player will travel all across Melaka Tengah according the map given to searching for the treasure. Only one player allowed playing this mission game. Treasure Hunt action game has two adventure levels that need to complete by the player before find the treasure.

Each level player will face different task to complete the stage such like in the middle of level 1, players should finish a drag and drop game about Malaysian culture until the task is done before continuing the journey to find the treasure. Player also will facing other different task in level 2 and level 3 to complete their mission and found the treasure. Because lack of games that promote our country, this game can be use to promote lots of tourist spot in Melaka and also shows a local culture to others tourist. By making this 2D's mission game, it will be fun for user to learn about Malaysia especially Melaka while they enjoying playing the interactive game.

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This project is mainly using Adobe Flash CS4 to develop this game including the game movement, navigation, effects and the input is by using keyboard as the main controller. This mission game will use the latest Action Script 3.0 to create the game action such as the character movement just by pushing the button on the keyboard while the character of the game will response to each input from the keyboard.

1.2 Problem Statement

This project mainly is about multimedia industry in our countries because there is minority organization or individual use a multimedia such Adobe Flash as a platform to promote our countries and our culture. There only a few games that promote our country and our cultures to international and can assume this type of game in not exist at all. This is because lack of knowledge and skill to develop these kind of games. Using of Action Script 3.0, all the game effect in Adobe Flash such as character movement and action will be easier to manage. By using Adobe Flash, more 2D games can be developing in more interactive ways.

According to latest market of multimedia industries in our countries, this is good opportunity to build 2D's game using Adobe Flash because there is lots of organization such as MDeC (Multimedia Development Corporation) ready to sponsor and help to build this multimedia product. In 1999, it was reported that the computer games industry had passed Hollywood box-office receipts in terms of annual turnover. And the world's digital games market has been growing at 20 per cent each year, totaling up to a US$28 billion (RM106 billion) industry today says Izwan Ismail in his blog "Studying Games Technology". All these developments do not just translate into the creation of business opportunities, but more importantly, it opens up a new line of career for game enthusiasts in the field of computer games

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development. This is a good chance for game developer to gain more profit. This makes this project can bring benefits more then just promoting Melaka.

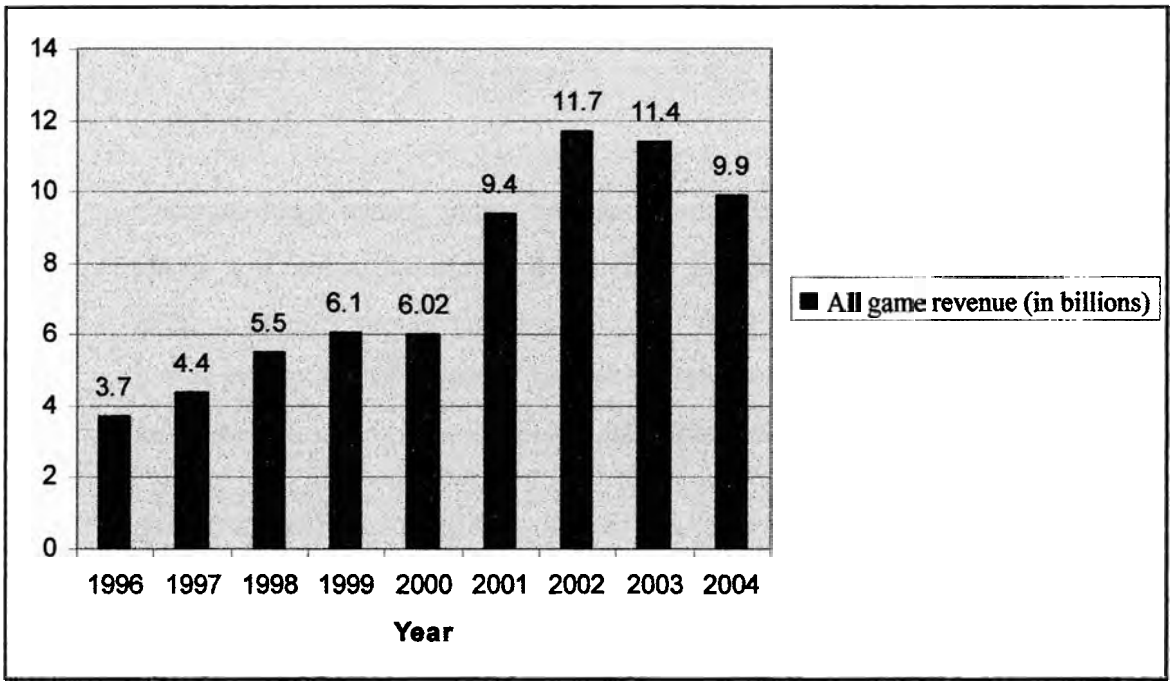

Figure 1.1: Growth Of The Game Sales In The United State Since 1996 Based On Figures Provided By Electronic Software Association (ESA)

There is a few games that promote our country and our cultures to international. Before this, a famous local artist, Lat improved that multimedia is a best way to promote our culture to others countries in the world by making a first Malaysian animation 'Kampung Boy' that get excellent response from local and global audience. According to Ministry Of Tourism Malaysia's Client Charter that's says," To promote the country as a leading local and international tourist destination". This means that we should promote our country to international. Why not we use 2D's game to promote our country to global after the successful 'Kampung Boy' in international animation industries.

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1.3 Objective

The project objectives are:

- To develop a single player mission games that contain 2 levels to complete the all mission.

  Treasure Hunt action game has two adventure levels such as. Each level player will face different task to complete the stage such like in the middle of level 1, players should finish a drag and drop game until the task is done before continuing the journey to find the treasure. Player also will face other different task in level 2 to complete their mission and found the treasure.

- Apply a Fuzzy Logic as a decision making technique in this action game.

  Making action game consist some sort of technique call decision making using as a controller for the game character and there are many type of it such as generic algorithm, fuzzy logic and many more. This project use Fuzzy Logic technique as a decision making for Treasure Hunt action game. It were use for the character of dog inside the game.

  To develop an action game based on Melaka Tengah evironment.

  Because lack of games that promote our country, this game can be use to promote lots of tourist spot in Melaka and also shows a local culture to others countries.

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1.4 Scopes

To develop this project, there were several scopes that need to take in account such as user scope, player scope, module scope and game environment scope. This scopes used as the requirement and target user to develop the game.

1.4.1 User Scope

These game target users are from age 20 years old to 25 years old. Local and international tourist also target user for this game because it can be interactive enjoyable tourist guide.

1.4.2 Player Scope

These game can be single player or multiplayer game and it can be play in same time for multiplayer mode.

1.4.3 Module

These game will be only deliverable in CD as a merchandise for tourist that visiting Melaka. It also will be in stand alone computer that will be placed in tourism spot such as museum or zoo.

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1.4.4 Game Environment Scope

The game environment for this project will cover some interesting places in Melaka Tengah such as Melaka Historical City and along Sungai Melaka.

1.4.5 Game Language

This game will fully use English as a main language because this game will be played by international tourist.

1.5 Project Significance

There is a lot of benefit to everyone from this project especially to Melaka and Malaysia because this project is to promotes Malaysia and its culture especially in Melaka It also good to our game industries that will gain more game developers if this project success. The tourists from others county also will have benefited from this project by knowing about our country in interactive ways. This will contribute to more tourists visiting Malaysia.

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1.6 Conclusion

As a conclusion, this project will give revolution in gaming industries in our country and increase the number of local game manufacturing in Malaysia and decrease the imported games from others countries. The expected output from this project is developing a new era of gaming by promoting a local places and culture using 2D game. This game will be deliverable in CD and also available in internet. In this chapter, gave an overview on the project that will develop and it also explain how the game will be.

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CHAPTER II

LITERATURE REVIEW & PROJECT METHODOLOGY

2.1 Introduction

A literature review is a body of text that aims to review the critical points of current knowledge on a particular topic. Most often associated with science-oriented literature, such as a thesis, the literature review usually precedes a research proposal, methodology and results section. Its ultimate goal is to bring the reader up to date with current literature on a topic and forms the basis for another goal, such as future research that may be needed in the area. A good literature review is characterized by a logical flow of ideas current and relevant references with consistent, appropriate referencing style proper use of terminology; and an unbiased and comprehensive view of the previous research on the topic. According to Cooper (1988) "a literature review uses as its database reports of primary or original scholarship, and does not report new primary scholarship itself. The primary reports used in the literature may be verbal, but in the vast majority of cases reports are written documents.

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In article 'A survey method for assessing perceptions of a game: The consumer play test in game design' by John P. Davis, Keith Steury, and Randy Pagulayan, the computer and video game industry has only relatively recently burgeoned into one that rivals the film industry in terms of consumer spending. In the United States alone, the games industry reported about $6.9 billion in sales in 2002, and sales increased to $7 billion in 2003 and $7.3 billion in 2004. Increased sales have also led to increased competition among games developers, as they vie for a share of the growing wealth. Because higher-quality games tend to sell better, game developers are increasingly looking for ways to improve their games. Their research shows that developing game nowadays can gain lots of money. This is because of the number of people playing games are increasing every years.

According to Duncan Riley in his research, 217 million people worldwide play games and most of them played online games and this proved the market of game industry. Duncan Riley collected the data from Worldwide Online Gaming Community by collecting unique user that visits online games. Another research in 2003 by Steve Jones found that 70% of students surveyed reported playing video, computer, or online games at least "once in a while" ,65% reported being "regular" or "occasional" game players, 100% reported to have played a video, computer, or online game, and 27% said they don't play games at all. He also found that 69% were exposed to video games in Elementary School, 28% exposed to computer games in elementary school, 6% exposed to online games in Elementary school. This shows that people play games and it is good opportunity to game developers to making money in game industry.

Increasing the numbers games player also give some problem such as probability of increasing violence among the players. An article literature from Carnagey and Anderson (2004) stated that the violent digital game can caused the increase of the aggressive, cognition and effect of human. According the literature written by Carnagey and Anderson, the "Nintendo era" introduced more powerful platform than the previous era and the violent theme have been injected to various games during this era. Inside the literature written by Carnagey and Anderson, they

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stated that 89% of games contain some of the violent issue and 50% of the games contain serious violent action towards other game characters. This kind of game will inerease the aggression of player. Playing violent game can also lead to physiological desensitization to real-life violent and decrease being helpful to others. But according to Bureau of Justice Statistics in United State of America, total of violent crime are decreasing year from 1973 to year 2005. This shows that games are not a threat of making people violent and it depends to individual.

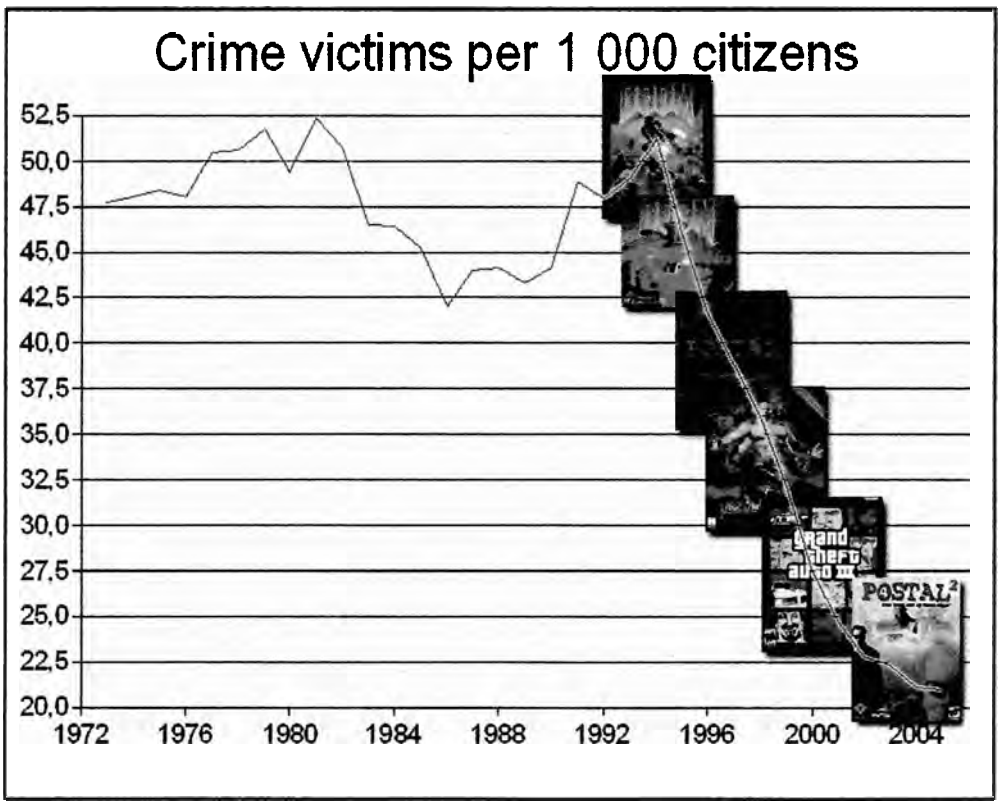

Figure 2.1: National Crime Victimization Survey Violent Crime Trends, 1973-2005 in US According To Bureau Of Justice Statistics In United State Of America

Violence is not a reason why people played games. Researcher Cragg Ross Dawson conducted a number of interviews and discussions with gamers as young as seven through to players in their early 40s; parents of young gamers, game industry representatives and game reviewers were also interviewed. In his research, he found that people play games to escape from every day life and to escape to a world of

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