# Universiti Teknologi Mara

### Developing Interactive Digital Storytelling Utilizing Multiple Navigation Structure

Nur Liyana Binti Mazwar

Thesis submitted in fulfilment of the requirement for

Bachelor of Computer Science (Hons) (Multimedia Computing)

Faculty of Computer and Mathematical Science

February 2013

### **ABSTRACT**

This will be a thesis on developing interactive digital storytelling utilizing multiple navigation structure. Digital storytelling is communicating ideas to audience in digital form. The user can watch, read, hear and interact with this application. Furthermore, it provides lots of interaction to the user. All interactive digital storytelling is a nonlinear structure which is users can choose any chapter or part that they want to read. This will make users might miss an important part of the story. This also will make users did not go through the exact flow of story. There are lots of methods that can be used to prevent this problem. Instructional design method has many models such as ADDIE Model, Waterfall Model and Spiral Model. ADDIE Model has been used as method this digital storytelling. This model consists of five phases which are analysis, design, development, implementation and evaluation. Each phase plays an important part in developing the interactive digital storytelling. As a result, by combination between linear and nonlinear structure of digital storytelling users are more flexible to choose either they want to go through the navigation structure or linear structure. This will help users to go through the story according to the flow of story. It will prevent users from confusing about the flow of story. Last but not least, the navigation structure helps users to gain their knowledge about the story.

#### **ACKNOWLEDGEMENT**

First of all, I would like to say Alhamduhllah, for giving me the strength and health to complete this final year project. I express my thanks to my supervisor, Dr. Marina Binti Ismail for helping me to complete this final year project and guide me to develop this project. I am heartily thankful to my lecturer, Encik Mohd Yunus Bin Mohd Yussof, whose encouragement, guidance and support from the initial to the final stage enabled me to develop this final year project.

Besides that, I would like to say thanks to all participants especially children who have willing to evaluate this application and my family for providing everything such as money, advice and anything that are related to this final year project. I would also thank to University Teknologi Mara Malaysia (UiTM) and my faculty members without whom this final year project would have been a distant reality.

### **Table of Contents**

<u> </u>	4	1	_	T 4	1	-4
una	pter	1	:	ıntr	<b>'oau</b>	ction

1.1	Overview						1
1.2	Problem State	ement					1
1.3	Objectives						3
1.4	Scope	o	f	the		Project	3
1.5	Significant			of	Stu	dy	4
1.6	Conclusion						4
Chapter 2 :	Literature Revi	iew					
2.1	Introduction						5
2.2	Background						9
2.3	Overview Sto	oryline					9
	2.3.1	Drama	ntic Struc	cture of Sto	ryline		11
2.4	Device for Di	gital Sto	orytelling	3			12
	2.4.1	Digital	Storyte	lling using	Mobile		13
	2.4.2	Digital	Storyte	lling using	Computer		17
2.5	Content in Di	gital Sto	orytelling	<u>5</u>			17
2.6	Linear and No	onlinear	Storytel	ling			18
	2.6.1	Linear	Stories.				19
	2.6.2	Nonlin	near Stor	ies			19
2.7	Six Eler	nents	of	Good	Digital	Storytelling	20
2.8	Conclusion						23

# **Chapter 3: Research Methodology**

3.1	Introduction	. 24
3.2	Project Formulation Framework	24
3.3	Methodology	27
3.4	Hardware and Software Requirement	30
	3.4.1 Hardware Requirement	. 30
	3.4.2 Software Requirement.	31
3.5	Research Project.	.31
	3.5.1 Combination between Linear and Nonlinear Structure	32
3.6	Conclusion	34
Chapter 4	: Design and Development	
4.1	Project Planning	35
4.2	Story Board	37
4.3	Development Application	.41
4.4	Prototype Application	43
	4.4.1 Interface	. 43
	4.4.2 Content	. 44
450	Conclusion ^	52