# THE DEVELOPMENT OF COVID-19 AWARENESS CAMPAIGN THROUGH 3D ANIMATED DIGITAL COMICS



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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JUDUL: THE DEVELOPMENT OF COVID-19 AWARENESS CAMPAIGN THROUGH 3D ANIMATED DIGITAL COMICS

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# THE DEVELOPMENT OF COVID-19 AWARENESS CAMPAIGN THROUGH 3D ANIMATED DIGITAL COMICS

# YONG KIAN PING



This report is submitted in partial fulfilment of the requirements for the Bachelor of [Computer Science (Interactive Media)] with Honours.

# FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY UNIVERSITI TEKNIKAL MALAYSIA MELAKA

## **DECLARATION**

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



I hereby declare that I have read this project report and found this project report is sufficient in term of the scope and quality for the award of Bachelor of [Computer Science (Interactive Media)] with Honours.

SUPERVISOR : \_\_\_\_\_\_ Date : 12 September 2021 (TS. NORAZLIN BINTI MOHAMMED)

# **DEDICATION**

This report is devoted foremost to my beloved family, supervisor, and friends which supervised and inspired me along the project.



#### **ACKNOWLEDGEMENTS**

I would like to express my sincerest appreciation to all those who provided me with the assistance to complete this report. A special honour I give to my final year project supervisor, Ts. Norazlin Binti Mohammed, who aided in suggestions and encouragement specially in writing this report.

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I would also like to thank my beloved parents who have been giving me support and motivation throughout my project especially during the pandemic.



#### **ABSTRACT**

The title of this project designated as "The Development of Covid-19 Awareness Campaign Through 3d Animated Digital Comics". The objective of this project is to study 3D animation in digital comics for the COVID-19 awareness campaign, to develop a 3D animated digital comic book on COVID-19 awareness, and to evaluate the usability of 3D animated comics in delivering awareness campaign compared to conventional comics. According to the research, the public still lacks awareness of the COVID-19 threat. The public needs to be more aware of how dangerous the viruses are. This project hybrid both the traditional digital comic with the 3D animation to form a new reading experience. It is intended to raise the COVID-19 awareness to the public through reading the motion comics. The research on the usability of the motion comics of the awareness campaign is then carried out.



#### ABSTRAK

Tajuk projek ini ialah "The Development of Covid-19 Awareness Campaign Through 3D Animated Digital Comics". Projek ini bertujuan untuk mempelajari animasi 3D dalam komik digital bagi kempen kesedaran COVID-19, untuk mengembangkan buku komik digital beranimasi 3D mengenai kempen kesedaran COVID-19, dan untuk menilai / membandingkan keberkesanan komik animasi 3D dalam menyampaikan kempen kesedaran berbanding dengan komik konvensional. Menurut kajian, masyarakat masih kurang mengetahui tentang ancaman COVID-19. Orang ramai perlu lebih menyedari betapa bahayanya virus tersebut. Projek ini merangkumi tradisional digital komik dengan animasi 3D untuk menyampaikan pengalaman pembacaan komik yang baharu. Projeck ini bertujuan untuk meningkatkan kesedaran ancaman COVID-19 kepada masyarakat melalui membaca komik bergerak. Penyelidikan mengenai keberkesanan komik bergerak tentang kempen kesedaran akan dijalankan kemudian.



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# LIST OF ABBREVIATIONS

**MCO Movement Control Order Computer-Generated Imagery CGI 3D 2 Dimensions 2D 3 Dimensions Short Message Service SMS PDF Portable Document Format Augmented Reality** AR VR **Virtual Reality** 

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#### **CHAPTER 1: INTRODUCTION**

#### 1.1 Introduction

Comics is known as the visual medium of image-text combination that is used to deliver ideas or information. It is commonly created by hand-drawing or in printed form with either sequenced of single or multiple panels of images. As soon as computer technology advancing, comics in digital form becoming the latest trends among the public. With the aid of drawing devices and software, digital comics creation is much faster than traditional hand-drawn comics. Without the need for paper, the lifetime of a digital comic is said to last forever compared to physical comics. On the other hand, animation is a moving object, image, or any kind of visually created by a photograph, drawing, or created by computer. Unlike the traditional handdrawing and painting animation by frames, animations in this era are mostly created with CGI. It is faster and easier to produce high-quality animation. There are two main types of animation, 2D animation which consists of flat images, and 3D animation which integrates depth of third-dimension-space into the 2D world. People are more attracted to the motion visual compared to the static images or texts (Dindar, Yurdakul&Dönmez, 2013). As humans perceive better when things are in motion, 3D animation gives a better understanding and perception compared to 2D animation (Au, 2014). As computer technology becoming mature, a new form of comics is revealing in the public eyes. Animated comics, also known as motion comics, is the invention of hybridisation of both comics and animation through CGI, visual effects, and complex digital compositing that bring a new impression among the readers (Smith, 2015). Since the beginning of the pandemic, the world was putting massive affords into preventing the outbreaking of COVID-19 viruses (Kokudo&Sugiyama, 2020). The actions taken include educating the public on COVID-19 through awareness campaigns. The common approach in delivering COVID-19 awareness is through television, online media, radio, poster, SMS or any other publication such as newspapers, and magazines. Comics, however, is an alternative medium to educate the public through the awareness campaign as it encourages people to read and learn effectively (Muniran&Yusof, 2008).

#### 1.2 Problem Statement

According to (Camoens, 2020), compounds that worth more than half a million ringgit were issued to MCO violators on 28th October 2020. This incidence shows the public still lack of awareness on the COVID-19 threat. Public needs to be more aware on how dangerous the viruses are (Hu, Lou,...&Wang, 2020). Besides, conventional comics for awareness campaign nowadays are mostly in static image form. Some people might face difficulty just by reading the texts or to visualise the static images compared to animation (LESTARİ&MUSTADİ, 2020). This could lead to obstruct on delivering the COVID-19 awareness campaign among the public.

# 1.3 Objective

This project embarks on the following objectives:

- 1. To study on 3D animation in digital comics for COVID-19 awareness campaign.
- 2. To develop a 3D animated digital comic book on COVID-19 awareness.
- 3. To evaluate the usability of 3D animated comics in delivering awareness campaigns compared to conventional comics.

# 1.4 Scope

This project integrates 3D animation into the traditional comic book. The target users of this project are focusing to the young adult which aged between 18 to 24 and those are interested in reading comics or watching the animation film. The approach in delivering this project is through Windows application due to the animation media formatting.

# 1.5 Project Significant

This project hybrid both the traditional digital comic with the 3D animation to form a new comic experience. This animated comic book expects to benefit those having difficulty in reading or visualising the comics. It intended to raise the COVID19 awareness to the public through attractive comics with animation. Besides, this project also investigates the usability of 3D animated comics in delivering the awareness campaign compared to the conventional comics.

# 1.6 Conclusion

To conclude, this chapter briefly introducing the project that carried on as well as describes the project objectives.



#### **CHAPTER 2: LITERATURE REVIEW AND PROJECT METHODOLOGY**

#### 2.1 Introduction

This chapter will discuss about the domain and the other sub-categories of this project. Besides, the existing system that relates to the domain is described, and the methodology of this project is also explained in this chapter.

# 2.2 Domain

# **2.2.1** Comics

# 2.2.1.1 Physical Comics

According to (Eisner, 1985; McCloud, 1993), comics is defined in combination term of communication, language, and is relies on visual experience of both creator and reader. Comics nowadays is not just a medium of enlightened, learned, or entertainment tools, but also involved in legal side (Chute, 2017). Traditionally, comics is created in printed medium such as newspaper, magazine, or combined as a book. Comics initially is to entertain the reader, or just act as a simple drawing art. At the late 1930s, the comic book covers act as the advertisement medium and as enterprising packaging for a product (Goulart, 2000). Figural 2.1 shows the comic strip back in 1912s where the story events and respective scenes are organised and arranged in panel strip. The viewport usually in a third or first-person angle, while the text captions use for story narrations (Eisner, 1985). The dialogues are showing in a white bubble or balloon and a tail to indicate the speaker.