AUGMENTED REALITY TO ELEVATE THE CHENTA KOPI

Hanis Wadiha Mohd Azhar¹,a, Syed Muhammad Hazry Asraf¹,b and Syed Zulkarnain Syed Idrus¹,c,*

¹School of Human Development and Techno-Communication (iKOM), Universiti Malaysia Perlis (UniMAP).

a haniswadiha@gmail.com; b hazrysyed@gmail.com; c syzul@unimap.edu.my

Abstract. Augmented Reality (AR) to elevate the Chenta Kopi is an application which uses ‘augmented reality’ as a platform to well-known by students and also staff among university. It developed for all student and also staff Universiti Teknikal Malaysia Melaka. This project contain various type of interactivity and element of multimedia like graphic, video, audio and ‘augmented reality’. Element multimedia like this can afford for attract the user also know much further Chenta Kopi. This paper attached with ‘augmented reality’ which enable users fully use their smart phone function. This project develops by using a few software applications like Adobe Illustrator, Adobe Photoshop, Adobe Premiere Pro, and Entiti. The entire graphical element available in this project is design in Adobe Photoshop and Adobe Illustrator. Adobe Premiere Pro is for editing video. Entiti is the platform where all the multimedia element ware integrating to develop an augmented reality. This is reform way for student and staffs acquaint Member of Chenta Kopi closer.

1. Introduction

There are many factors to consider when evaluating the decision to rebrand a name. Typically you are gripped with a sense of bewilderment as the word “rebrand” typically means “change”. This is always difficult, especially when you are the one responsible for the success and longevity. In this modern world, technology has been the most frequent information medium used by anyone. In the case of Rebranding Chenta Kopi to implement Augmented Reality it is most widely used to let the student or lecturer knows the activities and many more about faculty society [1].

Branding is the creation of a new look and feels for an established product of the company. The usual goal of branding is to influence a customer’s or user’s perception about a product or service from the company or society overall by revitalizing the brand and making it seem more modern and relevant to the customer’s or user’s needs [2].

This main purpose of this project is to introduce the Chenta Kopi in UTeM for prospect student by based on AR techniques and to provide the prospect students with complete information about the program offered in each faculties in university by using Entiti application as one of the promotional media.
2. Related works

Nowadays, New Media has evolved and change ceaselessly. Augmented Reality (AR) is an emerging form of experience in which the Real World (RW) is enhanced by computer-generated content tied to specific locations and/or activities. Over the last several years, AR applications have become portable and widely available on mobile devices. AR is becoming visible in our audio-visual media (e.g., news, entertainment, sports) and is beginning to enter other aspects of our lives (e.g., e-commerce, travel, marketing) in tangible and exciting ways [3].

In this era, with the development of high performance and low cost hardware, computers are already considered as part of our everyday life. High performance electronics is now ubiquitous and offer great and continuously improving resources ready to support us in the execution of ordinary tasks. A way to exploit these new resources is given by Augmented Reality (AR) [4]. AR is a breakthrough technology but, at the present day, it is still affected by serious problems that jeopardize its implementation in industrial environments.

Three applications that utilized new media and augmented reality technologies has been chosen and looked at about the components.

![Image of Bombay Sapphire: Augmented Reality Product Label](image)

**Figure 2.1: Bombay Sapphire: Augmented Reality Product Label**

Augmented reality has so many great applications in the packaging and consumer goods space. For this campaign, we teamed up with Shazam and Bombay Sapphire to create a unique AR experience for Bombay Sapphire customers using the bottle label as the activation point [5].

When the scanned the label revealed an animation, representing the essence and character of Bombay Sapphire in augmented reality. Customers could then watch exclusive video content, showcasing a mix of different Bombay Sapphire cocktail recipes.

This is the main type’s product packaging. Each of design had own information and interactivities. The design of label explains that attributes visually shown the information of the product.
Lemon & Orange created a virtual fitting room for Timberland where people could try out clothes from the newest collection without actually wearing them. Dorota Williams supported the action and gave some advice on fashion in Mokotow Gallery on 25th October 2014 [6].

The device followed the person’s movement and analysed it in real-time thanks to Kinect technology. When a person got close to it, the app scanned the person’s face, took a picture and looked for a good model for it. On an 80-inch screen, using their gestures, they could freely change their outfits- jackets, jumpers, trousers and shoes. The person could go back to the previous outfit and make some changes anytime they wanted. At the end their new look was saved and sent by e-mail to the person who created it and also put in gallery on Timberland’s fan page. The outfit could have also been shared on Facebook following the link from the e-mail.

A special app for iPad was enabled for customers visiting Timberland in Mokotow Gallery. Tablet version took a picture of the face and put it on a model. Later, by using touch screen, the person could have changed the clothes freely. Like before, the outfit was sent by e-mail and could have been shared on Facebook. A Facebook app is being created for those who could not use it in Mokotow Gallery. In a moment on Timberland’s fan page everyone will be able to create their own stylish outfits.

Working closely with SIG, leaders in aseptic packaging, we created this eco-friendly example of a promotional water product with an interactive AR content experience that tells the story of water’s health benefits, the eco credentials and the rest of the range to show the cross-promotional possibilities. This is a great example of how AR can add a new narrative to an existing product through interactivity and animation [7].

SIG have been using Zappar for a number of years to power their AR-enabled packaging across a diverse range of their customers’ packaging as well as on their own packs.
### TABLE I. COMPARISON OF THE PREVIOUS PROJECTS

| Index | Title                                      | Audio | Video | Animation | Text | Image |
|-------|-------------------------------------------|-------|-------|-----------|------|-------|
| [5]   | Bombay Sapphire: Augmented Reality Product Label | Yes   | Yes   | Yes       | Yes  | No    |
| [6]   | Timberland Augmented Reality Campaign      | Yes   | No    | No        | Yes  | Yes   |
| [7]   | SIG: W-in-a-Box Augmented Reality Packaging | Yes   | No    | Yes       | Yes  | No    |

Based on the table, the interactive element of audio and text is available for all three applications. For element of video, Timberland and SIG did not show any video. Different with Bombay Sapphire, their use this element to attract their customers by watch an advertisement.

For element of animation, only Timberland did not use this element. Because their use button function to make it the augmented reality to their customer choose the cloth, shoes, shirt, cap, pants and anything else. That the way to attract their customer to use it the augmented reality. Compare with Bombay Sapphire and SIG, their use the simple animation to promote their product to customer. For element of image, Bombay Sapphire and SIG did not use this element in their augmented reality. Only Timberland use this element to promote their product to customer by using augmented reality. Customer must choose what kind of item their want to try without wear it by using augmented reality, then the item will pop up on big screen to make customer acting like their wear it.

All the three application mentioned above have been developed aims to promote their offer to the public and to attract public to using their application is part of their marketing strategy.

### 3. The structural design of AR

In the development of AR, it goes through some of the processes commonly used by some industries.

![System Planning](image1)

![Implementation](image2)

**Figure 3.1.** The structural design of the AR.

#### 3.1. User Interface Design

User interface acts as medium that allow the user to interact with the system. User interface is the most important medium because most of the good system is depending on how many users can understand how to use the system or product. In process of designing the user interface, it must be really properly in order to develop better interaction between the users and the system. There are three fundamental parts for user interface which are navigation design, input design and output design.
3.2. Navigation Design

The navigation design will be shown through the flow chart below.

![Flow Chart for Navigation Design](image)

**Figure 3.2:** Navigation structure of augmented reality packaging box product

3.3. Output Design

Figure 3.3 below is the content and output design for marker. Marker which is logo marker contains video, 2D image, text and button for user to interact with.

![Content for Marker](image)

**Figure 3.3:** Content for marker

3.4. Logic Interactivity

In ENTiT Creator Software, there is a way to make the object user interact. User can touch the object and the object can move around or can be the button to the next page. Below are the logic that have been made in this augmented reality product.
Figure 3.4: Logic design for marker

4. Conclusions

Augmented Reality and training is a decent combine of group that prepared to make a brilliant impact to the informative world. Despite the obstacles that the things encounter, the application still prepares to inspire everyone. Little issue on the product would not check the developing of Augmented Reality in instruction. In a perfect world later on, the product will experience further change and the idea to realize the Augmented Reality packaging product is succeeded.

References

[1] Jorge Martin Gutierrez (2015). Historical Graffiti in Temple of Debod.
[2] Abdul Nasir Zulkifli (2010). Development and Evaluation of i-Brochure: A Mobile Augmented Reality Application.
[3] Agung Bayupati (2015). Augmented Reality Mobile Application of Balinese Hind Temples: DewataAR.
[4] Bistaman, I. N. M., Idrus, S. Z. S., & Rashid, S. A. (2018, June). The use of augmented reality technology for primary school education in Perlis, Malaysia. In Journal of Physics: Conference Series (Vol. 1019, No. 1, p. 012064). IOP Publishing.
[5] ENTiTi Platform user guide (2016). Accessed 2016, https://storage.googleapis.com/creator/Creator%20User-Guide.pdf
[6] WakingApp Realities (2016). Accessed 2016, https://www.wakingapp.com/
[7] Aggarwal, V (2017). Augmented reality technology introduction and its real world uses. Retrieved from https://www.3pillarglobal.com/insights/augmented-reality-introduction-and-its-real-world-uses.
[8] Hellyer, B. S. (2014). Tyler Packaging says augmented reality design app will save customers cash. Retrieved from https://www.bakeryandsnacks.com/Article/2014/09/25/Tyler-Packaging-augmented-reality-3D.
[9] Levski, Y. (2017). Markerless vs. Marker Based Augmented Reality. Accessed 23 March 2017. https://appreal-vr.com/blog/markerless-vs-marker-based-augmented-reality/
[10] The Franklin. (2016). W H AT I S AUGM EN T E D R E AL I TY ? Retrieved from https://www.fi.edu/what-is-augmented-reality