

Chapter 36

Pundana Go!

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Abstract

“Pundana Go!” is an augmented reality game-based application which is used to ease the conduct of freshies’ orientation programme at UiTM PuncakPerdana Campus. The objective of this game is to make the orientation become more fun and enjoyable by using a digital game. The process involves designing AR digital game in PuncakPerdana Campus. The uniqueness of this application is it provides students with enjoyable orientation activity and it is also very easy to develop and use. With this application, new students will get interested to attend the orientation. Hence, the percentage of absentees in the orientation can be minimized. Moreover, less manpower is needed to run this orientation programme. It is hoped that these techniques can be used at a larger audience involving students from other campuses.

Introduction

Augmented Reality (AR) is a technology that works on computer vision based recognition algorithms to augment sound, video, graphics and other sensor-based inputs on the real world objects using the camera of any devices. AR technology has been around for the past few years and now it has becoming phenomenon especially in education. However, augmented technology not only used for academic purposes but also in game-based applications. In line with that, we have created an augmented reality game-based, named ‘Pundana Go!’ which used to ease the conduct offreshies’ orientation programme at UiTMPuncakPerdana Campus. “Pundana” stands for PuncakPerdana, while “Go!” was taken from the idea of ‘Pokemon Go’. “Pokemon Go” once has been an addiction to the world. “Pundana Go” is a game that aid the freshies to befamiliarized with the university vicinity and important places such as the library, classes, offices, lecturers’ rooms and many others places that are being used frequently by the students. “Pundana Go” is actually designed by using HP Reveal (formerly Aurasma) application. HP Reveal has been included a powerful drag-and-drop web studio that enables anyone to easily create, manage and track augmented reality campaigns (HpReveal ,n.d.).

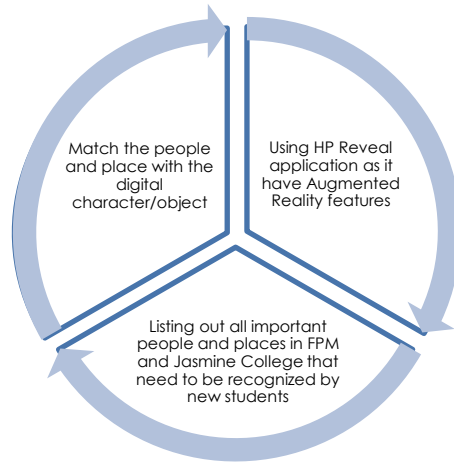


Fig. 1.0 Concept of ‘Pundana Go’

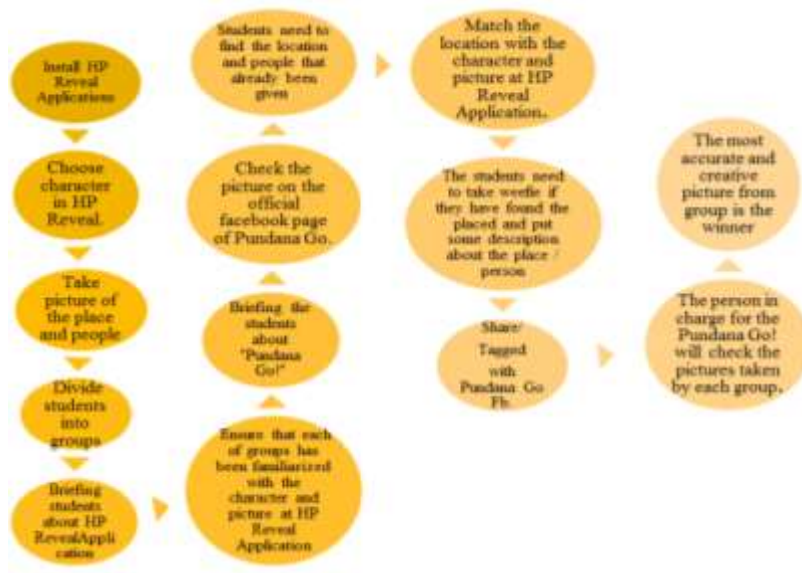


Fig. 2.0 Steps in “Pundana Go” Game

Based on figure 2.0, the first element that is included in “Pundana Go” is using an Aurasma application that has Augmented Reality features. However, we actually need to list out all the most important places and location in the faculty to aware the new students. In Malaysia Higher Institution, it is compulsory for the freshies to have orientation but the orientations are generally less exciting. However, with the element of augmented reality, the orientation can be fun and enjoyable as well as memorable. Along with the augmented reality technology, the learners have the potential to explore the university facilities by using their very own smartphone through preprogrammed Augmented Reality application. “Pundana Go!” Platform used Hp Reveal as a tool to develop the Augmented Reality game. Freshies need to install Aurasma first in their mobile devices in order to play “Pundana Go!” There are a lot of characters, photos, 3D cartoons that need to be matched by the students with the places in university that have been prepared by the facilitator of the program. Through “Pundana Go!” freshies are able to explore and visit the preprogramed locations. Participants are also required to take selfie pictures at every checkpoint prior to submitting their pictures to the designated

Facebook page. Winners are determined according to the completion time and completeness of pictures sent to the Facebook page.

Table 1
Differences between Students orientation game and AR Game

Item	Student Orientation Game	AR Game
Entertainment	Common and ordinary	Modern and Fun
Manpower	Need more manpower at each checkpoint	Reducing manpower
Accessibility	Complicated	Wide, Universal and friendly
Student's Participation	Students will easier to get boring with the common games hence lead to many absentees	Students are excited to experience a new games and activity
Environment of orientation	Common	More lively and enjoyable

Based on the differences above, it shows that students' orientation sessions are generally less exciting. With the rise of Industry revolution 4.0, students need very modern and capable digital platforms as part of their learning activities.

Conclusion

In a nutshell, augmented reality (AR) applications are an interactive platform that allows visualization of digital information about places, objects and many others in animation or contextual format. Not only that, augmented reality is the integration of digital information with the user's environment in real time. Unlike virtual reality, which creates a totally artificial environment, augmented reality uses the existing environment and overlays new information on top of it. Take the Nokia City Lens for the Windows platform, or Google Goggles for iOS and Android; these vastly popular AR apps have millions of users in the world. Therefore, such replication in the exploration of university environment adds interactive experiences for new students.

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