



## What is Augmented Reality?

Augmented reality (AR) is a three-dimensional interactive experience that mixes real-world views with computer-generated features. AR differs from VR in that VR is a fully self-contained computer environment, whereas AR overlays computer components on top of real-world items in real time.

# AUGMENTED REALITY

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source and citation :

<https://www.youtube.com/watch?v=Wxzcd04rwc8>

<https://poplar.studio/blog/augmented-reality-stats-infographic/>

<https://www.quytech.com/blog/type-of-augmented-reality-app/>

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## Augmented reality and 4th Industrial Revolution

As Malaysia is striving toward the 4th I.R, the nine supporting pillars known as "9 Digital industrial technologies" play a major role as it is the foundation for bringing Malaysian closer to technological and network connectivity. With Augmented Reality (AR for short) being one of them, its future is expected to be involved in a lot of sectors such as video gaming, healthcare and engineering within 2025 with a large amount of revenue set on its development. Other than that, Augmented reality is expected to be projected to 3.5 billion users, within snapchat and instagram, which include  $\frac{1}{4}$  of the population and 9 out of 10 brands are planning to apply Augmented reality in their campaign with over 15 billion dollar revenue. With the up and coming of augmented reality, there have been 10 popular uses or cases for AR in many fields such as education where students are able to use AR to inspect a matter in a 3D manner where it can revolutionize how they study and give huge advantage to those who study through visuals. Other than that, AR can also change how people shop for fashion and design. By using AR, we can see how a product might look on us when we get it, allowing some insight into whether it is worth the buy or not, and this concept is applied in "virtual fitting room technology" with expected revenue of 10 billion dollars by 2027. Another game changing factor that is brought about by AR Technology is the creation of Metaverse, which is thought of as a physical, augmented and virtual reality in a shared online space. It the next evolution of internet and will greatly affect all industries. Other popular use of AR currently include design, jarvis-like AI, indoor/ outdoor navigation, healthcare, automotive industry, sport industry and virtual user instruction and manual instruction.

To summarize, this talk presents the relationship between AR and the 4th Industrial Revolution in a manner that is easy to grasp by us, students. With the exposure of how Augmented reality works in the industries, type of AR and famous cases and use of AR, we were thrilled to be able to indulge in the process and direction the nation is taking to the realization of 4th I.R. Furthermore, the talks also present us with insight on how we should develop ourselves, from the human sides such as creative endeavors and social interaction to 4th I.R required skills such as complex problem solving, critical thinking and emotional intelligence. Lastly, the speaker did highlight the income of those involved in AR, which definitely became motivation for many participants to pursue this topic as a future career.

## Reflection from the talk

The talk input gives some insight on how Augmented Reality will affect Malaysia in our journey to further digitize our industries in approaching the 4th Industrial Revolution. This has further expanded our perspective on the fields and requirements that are needed to improve our connectivity and technological development. Other than that, this talk has piqued our curiosity on how far AR can digitize our physical world such as learning through AR, digital showroom and enhancing our connectivity through the internet. Finally, we also gain some input on the skills needed from both soft skills and hard skills perspective, to contribute in the development of "9 Digital Industrial Technologies", the pillar of Malaysia 4th Industrial Revolution, Augmented Reality especially and be part of the bodies that move the nation towards its future.

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## Type of Augmented Reality

First is Marker-based AR . Markers are identifiable patterns that cameras can quickly perceive and analyse. Markers stand out visually from the surroundings . Users may scan markers from their device's camera feed using software, which is generally in the form of an app. Second is Projection AR . The projection of light on a surface is one of the most basic forms of AR. Light is thrown onto a surface in projection-based AR, which is attractive and engaging. Third , Superimposition Based AR . The superimposition of the objects is explained by the term itself. This AR displays a replacement view of the in-focus item. This is accomplished by overlaying an augmented view of the item over the complete or partial view.

