**AUGMENTED REALITY**

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**What does it do?**

Augmented reality is the technology of implementing or enhancing objects in the user’s environment in real time. Not to be confused with virtual reality in which the user uses technology to enter a computer-generated environment, augmented reality aims to enhance the user’s own reality. AR is at the state in which it is optimised so well that it can easily run on most mobile devices. Currently AR is shown to be both practical and entertaining with its popularity primarily dominated by mobile applications. The most iconic example of this is Niantic’s Pokémon Go released in 2016. The entertainment app displayed and flexed the augmented reality’s technology to bring to life world renowned Pokémon characters to life in the user’s own environment allowing them to immerse themselves into the childhood dream of living in a world with these creatures. The most popular usage of AR comes from the mobile application ‘Snapchat’, with approximately 260 million daily *active* users. Snapchat utilises AR to bring more user engagement to the app by augmenting the reality surrounding the user as well as utilising facial recognition features and implementing AR into them to modify and enhance the face of the user for a more pleasing photo or modifying the users face and facial features for entertainment purposes. With the introduction of AR to snapchat, their aim of more user engagement and interactions with the app have been met with research showing that users who utilise these AR features interact with the application approximately 30 times a day! A more practical look at how AR technology is implemented is in Google’s Google Translate AR app which allows for real time translations of the environment around the participant. The app reads the language the camera is aimed at an provides a translation. This allows the user to enter words they cannot read or write into the app to receive a translation more suited to them. The future of Augmented reality is predicted to continue to grow despite being overshadowed by the similar Virtual reality. AR can be expected to begin having companies focus more on delivering a better user interface experience as it was found that many users did not enjoy operating the applications with its poor interface. Augmented Reality can also be expected to be further optimised to run on mobile devices more efficiently and reduce the intensity on the devices battery, battery depletion being a major problem with AR apps, along with better optimisation comes larger scale AR projects and applications taking AR away from the niche entertainment and practicality it currently has. By 2023 Augmented reality is predicted to be worth up to $20bn-$70bn whereas virtual reality is predicted to only be worth up to $15bn despite being the current powerhouse. This is predicted to be due a multitude of factors such as augmented reality being easier to get into than virtual reality. Everyone with a mobile phone will be able to experience augmented reality without the need to go out and purchase a device the same way that virtual reality users must. Along with this is eCommerce in the AR apps. Earlier example Pokémon Go contains a plethora of various in game purchase options for the user to partake in. Following the idea that AR is more easily obtainable than VR, AR on mobile can be easily advertised on to further increase profits. With mobile phones constantly being upgraded and improved, AR can piggyback itself on the success of that with more powerful apps for users to use at their fingertips.

**What is likely the impact?**

The further developments of AR, better user experience, increased optimisation, high market value with introducing more advertisements within apps, highly accessible, will likely impact augmented reality in increasing its popularity, retain consumer base and better performance and applications. With the improvement of better user experiences AR apps will be able to retain a larger portion of their customer base allowing for companies to have a more consistent active user pool rather than users only using the application for a limited time and moving on due to unsatisfactory user experience. With the increase in optimisation that the technology is underway to have, applications for AR will be capable of handling larger functions as well as having more pleasing visuals. This would be accompanied by applications also having smoother performance with less stuttering and buffering in the application further pushing a better user experience at the same time. The applications that utilise AR being mostly free on the app store/play store means that advertisements will be needed for the companies to make profit. With most successful AR apps being free to download, implementing advertisements onto them will be one of two major ways for the business to make profit, the other being paid in-app purchases. If a company aims to cater to the public and have no in store purchases, they will likely implement the advertisements. This brings forth a new section of the market to advertise within which further increases the market value of Augmented reality technology thus leading to more innovation. People utilising AR technology now will likely keep up to date with the improvements as well as continue utilising the applications. With the highly accessible nature of most AR apps, most being smartphone based, people using smartphones will likely utilise the applications that the future of AR will have. Augmented reality will most likely not make any job redundant but rather add a layer of digital complexity to the existing jobs. An example of this is utilising computers and augmented reality to train and teach students or new employees. This in turn frees up company space of not needed to allocate an employee to train and teach the new individual on how to operate the facilities they will use.

**How will this affect you?**

Improved augmented reality will improve upon the apps that I currently use that already have AR technology implemented such as snapchat and google translate. These improvements will allow for the apps to run smoother and not drain battery life of my smartphone as quick. Improved AR technology would also likely be a reason for myself to search out other interesting AR apps on my phone, where it is most accessible. If AR does improve it will likely be implemented more into my everyday life leading to a different lifestyle of what I do on my phone and in my spare time, be it for entertainment purposes or functional programs. Friends will likely also share the same affects as myself as they also currently only use AR on entertainment platforms such as snapchat and other social media apps. Once AR improves, they will likely also utilise whatever large app incorporates AR into itself. Currently my parents do not use any technology with AR in it. In the future it may become more accessible to the older demographic and become easier to use and learn for them. Siblings and cousins will likely experience the same affect as myself.

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