WEB701

Assignment 3

Develop

Part 3

The edge of web technology

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Table of Contents

Chosen web technology – Augmented Reality

The chosen edge of technology for the purposed web application is augmented reality.

Augmented reality (AR) is the enhanced version of the physical world that is achieved and brought to life using digital visual elements such as sounds, video, graphics and other sensory data which is delivered via technology.

One of AR's goals is to highlight specific features, increase the understanding of those features and show accessible insight into those features that can be then applied to many real-world applications. (Hayes, 2020).

Key attributes of AR technology are:

- Overlaying visual, auditory, or other sensory information onto the physical world to enhance a user's experience.
- Many businesses and organisations use AR to promote their products and or services. They also use it to collect user data.
- The difference between augmented reality AR and virtual reality VR is the fact that VR is a self-contained cyber/digital environment and AR adds to the physical world.

Brief History

Augmented reality technology dates to as far as the early 1960's. It was not until the 1990's when the term augmented reality was coined. The early technology was built with projection and camera technology to emit onscreen silhouettes.

AR has been used in theatre performances and became much more common place when in the late 1990's sports broadcasts showed virtual graphic systems on top of viewer feeds that showed the player line. The first notable example of this is the NFL yellow yard marker line where it showed the current teams advancements. The system is still used today although it is much more advanced than it used to be.

From the 2000's till today, developers have access to open-source AR tool kits, AR is commonplace in most sport games and viewings. Google and Microsoft and unveiled their own devices capable of mobile AR, although the devices are expensive. Social media platforms use a multitude of augmented reality in the form of camera filters on a user's mobile phone. Lastly, multiple industries have begun to adopt the use of AR in their daily processes. (Poetker, 2019).

Relevance

AR could have as big of an impact on society as the internet did. AR can provide real tangible value to consumers and businesses quickly and easily, especially when it comes to the personalisation of e-commerce and advertising. (Ismail, 2019).

A great example of the impact of AR on the internet and society was the boom of the Pokémon Go app in 2016. This app allowed users to collect virtual Pokémon on their mobile

devices while walking in the physical world. The app relied upon AR to create such a unique experience.

With such a unique experience and an overwhelming adoption rate of the app, it kick-started the conversation and shift into many organisations wanting to adopt the technology. Since Pokémon Go, AR has been adopted into a variety of markets from education, sports, fitness, gaming, productivity, e-commerce etc. (*Augmented Reality: What Is It & How Will It Affect Telecommunications?*, 2021).

Implementation

AR gives customers the chance to view and interact with products in a similar way that they normally would as if they were visiting a physical store. For the chosen charity web application this could be in the form of digital storefronts, virtual closets, or the ability to try on the clothing through AR. Implementing this technology could lead to increased site engagement and higher conversion rates. Also, the technology offers flexible customisation for customers

A 3D model developer would be the best choice to work on producing quality samples to implement on the site, but now mobile scanning solutions exist which enables the ability to take multiple 2D images of a product and convert to 3D. (Lockhart, 2021).

Future impact

With the expansion of faster network speeds like 5G it is predicted that AR experiences will be able to be hosted much more effectively and even on cloud-based networks. This will make it easy to get programs and have interactions from anywhere in the world.

After the wake of COVID-19 as companies and organisations have adopted remote work stances. This could allow people to stay connected and have better sociable interactions that stimulate human senses rather than just a simple video or voice call. A great example would be having a meeting that showcases people as projections of themselves or as avatars all the while they could be doing it from any location in the world.

Ecommerce and advertisement will have a huge impact on consumers heading into the future, I hope it won't be overwhelming, but it is very exciting to see what will develop.

Conclusion

I believe that in under a decade there will be improvements and developments in the field of AR, VR and XR technology. It's exciting to see such developments on the consumer front as well as multiple industry fronts, it means that AR and accompanying technology has a lot to offer. AR has the potential to connect people all around the world in a new and exciting way. To change the way we interact in the ever growing digital space.

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