

INNOWAVE

ISSUE 7



THE WALL MAGAZINE OF IT DEPARTMENT

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EDGE COMPUTING

ACT ON INSIGHTS CLOSER TO WHERE
DATA IS CREATED

Edge computing with 5G creates tremendous opportunities in every industry. It brings computation and data storage closer to where data is generated, enabling better data control, reduce cost, faster action and continuous operations.



BENEFITS



Deliver edge-enabled industry solutions built on IBM expertise.

Employ autonomous management that's built for scale and variability

Modernize telecom networks to deliver new services at the edge

What is VR?
Virtual reality uses computer technology to take you somewhere else - a digital "space" where you can move through and interact with others in a simulated environment.

VR

by Divyanshu Srivastava

When was VR invented?
The first VR prototype was created in 1968 by American computer scientist Ivan Sutherland with Bob Sproull.



- PROS:
- Better than reality
 - Connect with people
 - Give detail views

- CONS:
- High cost
 - Addiction to virtual world

Will VR replace the Internet?
When you think of VR, you might jump to a future in which the virtual world is our internet. But think of it this way: you can open YouTube and find a 3D virtual tour of the International Space station. But in future, space tourism won't just be a reality, it'll be a VR too, which means you could possibly, potentially enter the metaverse and walk around the space station as if you were there.

How does VR work?
Vision is the primary way human beings gain information about the world, so the accurate simulation of sight is the primary focus of VR. Computers use sophisticated software algorithms to make two-dimensional images and videos feel three-dimensional. Once these images and videos are rendered, or processed and put together, they are sent to a screen in VR headset.

SMART DEVICES



CONNECTED
CARS



MOBILE
CENTRIC



ALERT
SYSTEMS



PUBLIC
TRANSIT



SECURITY



SMART
AUTOMATION

A smart gadget is known to be an electronic device which is interlinked with other networks or devices by making use of different wireless protocols such as Wi-Fi, Bluetooth, NFC, 3G, etc. They have the capability to work autonomously and interactively. Modern technology has revolutionized the old technology and has made a huge impact on everyone's life. We make use of smart gadgets in daily lives in different ways. It can also be known to have artificial intelligence.

IMPORTANCE

Smart devices like smart phones, laptops, and desktop computers have made great advancement. Smart phones have become so powerful that they can perform basically anything from playing games, watching videos, word processing and much more. In addition, with the help of internet connection smartphones are hand held powerful desktop computers, which people carry in their pockets. Since, smart devices have become so powerful they have become a necessity for everyone, because they assist people in their everyday life. Smart devices are extremely useful to people because they make jobs easier for people.

Virtual Reality



What is virtual reality?

Virtual Reality (VR) is a computer-generated environment with scenes and objects that appear to be real, making the user feel they are immersed in their surroundings. This environment is perceived through a device known as a Virtual reality headset/helmet.



TYPES

3 primary categories of VR simulations used nowadays are : non-immersive, semi-immersive and fully-immersive simulations.

Benefits of Virtual Reality in Education...

- Increase knowledge area
- Active experience
- Boosts creativity
- Expands learners efficiency to gain knowledge.
- Helps to understand complex concepts, subjects / theories.

Limitations

- Locomotion sickness
- Cost of VR devices
- size of VR software
- Potential addiction
- Graphical limits
- Lack of vision of surroundings.
- Eye damage.

AUGMENTED REALITY

Augmented Reality (AR) is an enhanced version of the real physical world that is achieved through the use of digital visual elements, sound, or other sensory stimuli and delivered via technology. It is a growing trend among companies involved in mobile computing and business applications in particular. It involves overlaying visual, auditory, or other sensory information onto the world in order to enhance one's experience.

AUGMENTED v/s VIRTUAL

These two terms are often confused, so let's clarify. Augmented reality uses the existing real-world environment and puts virtual information - or even a virtual world - on top of it to enhance the experience.

- SNAPCHAT - A popular American multimedia messaging app. They impose different filters on user's face. This imposing of the filters look extremely real and original with the help of Augmented Reality and Artificial Intelligence.
- GOOGLE ARCORE - It makes use of motion tracking, environmental understanding, and light estimation to generate virtual characters that perfectly blend with the physical world. Best mobile apps that support AUGMENTED REALITY.

What is augmented reality (AR)?

Augmented reality (AR) is an integration of digital information with the user's environment in real time. Unlike virtual reality AR users experience a real world environment with generated perceptual information overlaid on top of it. The primary benefit of AR is that it manages to blend digital and 3-D components with an individual's perception of the real world.

Differences between AR & VR.

The biggest difference between AR and VR is that augmented reality uses the existing real world environment and puts virtual information on top of it. Whereas VR completely immerses users in a virtually rendered environment.

While the VR puts the users in a new, simulated environment, AR places the users in a sort of mixed reality. The devices used to accomplish this are different too. VR uses VR headsets which fit over user's head and present them with simulated visuals and audio information. AR devices are less restrictive and typically include devices like phones, glasses, projections and HUD's in cars.

Future of AR technology.

AR technology continues to grow as the popularity and familiarisation of apps and games increases. The expansion of 5G networks may make it easier to support cloud based augmented reality experiences.

For example by providing AR application with higher data speeds and lower latency. Since AR uses immersive technology, more opportunities and experiences across different platforms and media types are on the horizon.



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