



VIRTUAL REALITY DIPLOMA

ASSIGNMENT 1

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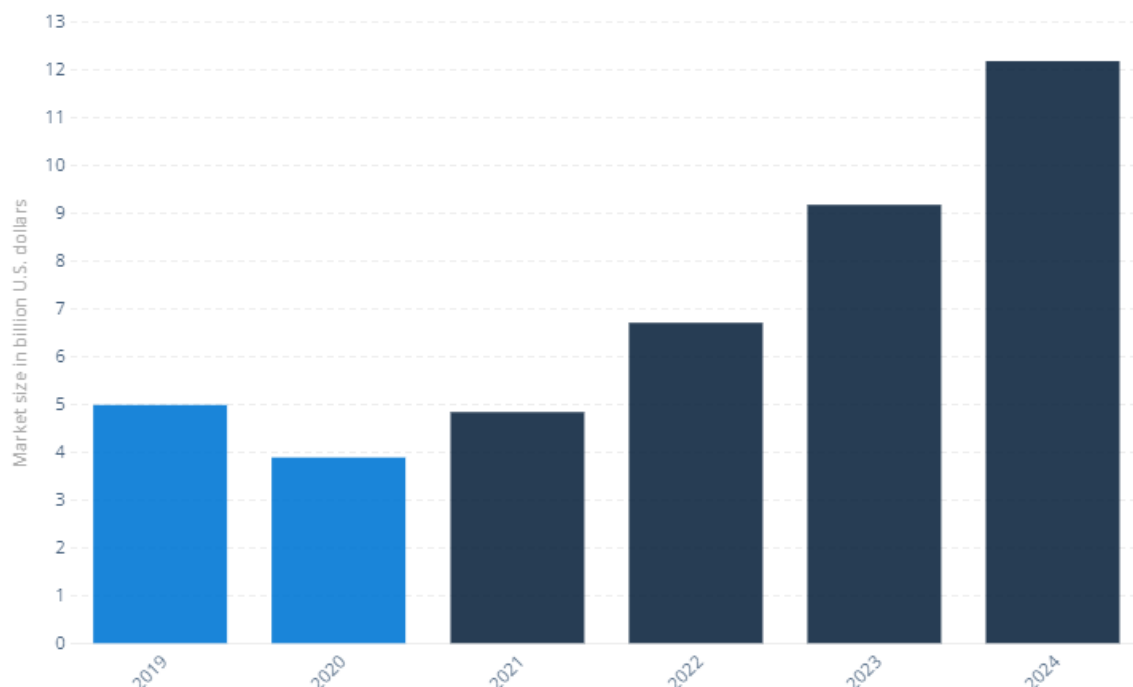
The VR Industry

A simulated experience that is either entirely different from or similar to the real world is known as virtual reality (VR). Virtual reality (VR) tries to provide the user a sensory experience that may include sight, touch, hearing, smell, or even taste.

The global VR market is expected to grow from less than five billion dollars in 2021 to more than 12 billion dollars by 2024, indicating that the sector as a whole is expanding quickly. The predicted expansion is anticipated to benefit both the business and consumer sectors, especially the growing VR gaming market. Analysts predict that advancements in VR hardware, such as the release of more stylish and compact devices, would encourage a greater uptake of VR by consumers and businesses. Manufacturing, workforce development, and healthcare are among the industries that VR technology is projected to affect the most.

Virtual reality set to grow significantly

VR market size worldwide in 2019 and 2020, with forecasts up until 2024



Source: [ARtillery Intelligence](#) • Includes consumer hardware - including console and PC VR headsets, along with standalone VR headsets - as well as enterprise hardware, consumer software, enterprise software, LBVR Admissions, and advertising.

The VR in Daily Life

According to eMarketer, the number of VR users in the US is 57.4 million while the number of AR users is 90.9 million. By 2022, the number of AR users in the US will jump to 95.1 million (Business Insider, 2021). This might indicate the huge number of users and applications the VR might be used today or in the future as the VR is used in **military training**, because virtual reality enables a wide variety of simulations, the military in the US and the UK have both adopted its use in training. All military branches—the army, navy, air force, marines, and coast guard—use VR. Virtual reality (VR) training is effective in a society where technology is embraced from a young age and youngsters are accustomed to video games and computers. For a variety of training reasons, virtual reality (VR) may transport a student into a variety of diverse situations, locations, and environments. It is also used in **fashion**, a less well-known application of VR is in the fashion industry, where it has had a significant impact. Retailers can design their signs and product displays, for instance, without fully committing to the build as you would in the real world, using virtual simulations of store surroundings. It is also used in **sports**, for athletes, coaches, and spectators, virtual reality is revolutionizing the sports world. Coaches and athletes can utilize virtual reality to train more effectively for a variety of sports, It can be used for **medical treatment** (Mental Health) and **medical trainings** for practicing operations and procedures provide a learning environment without negative consequences; this eliminates the possibility of hurting or making a mistake while using real patients as practice subjects. Students can build abilities that they can subsequently apply in the real world by using virtual patients. Its also presented in the **educational** field, it expands to schools with the adoption of virtual reality in learning and teaching environments. Students can engage with one another and with objects in a three-dimensional space. They can also be taken on virtual field trips, such as those to museums, solar system tours, and trips through history.

The VR is expected to be used more and more in the future as it can be our next life and it can introduce a new virtual world as meta introduced the metaverse and how this virtual reality can be in the real state or marketing or in the entertainment as real as possible

The Impact of VR

Pros	Cons
Distance Socializing	Addiction, users can become isolated, negatively affecting their mental health and become dependent on the use of VR.
We have better trainings in real-time situations but without having the fear of losing resources and money	Physical harm, as the VR for long time or with constant usage can lead to serval harmful things to the human body
Doing different applications and feel like it's real	For now, resources are limited and highly costed

VR Example to implement

Well, there are two examples of VR experiences I would like to see and implement one day, which are

- 1- ***Medical Equipment Maintenance/Calibration***, where the VR offers models to medical devices from inside and how you can repair/maintain/calibrate them for every part in the device. As this problem faces a lot of students in the field of biomedical engineering.
- 2- **Medical Equipment Planning**, like the architectural planning for buildings, medical equipment planning ensure that every room has the devices that it needs in certain places and the hospital itself has the needed equipment/ number of rooms/ regulations on the room that ensure the cost will be minimized and increase the profit and safety of the hospital. The VR will offer real simulation to the plan and we can decide which is better planning based on our experience in the VR