A SEMINAR REPORT ON

Augmented Reality IN Collaboration with Spark AR

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING CERTIFICATE

This is to certify that **Ms. Khyade Yashswini Mallinath** a student of **Computer Science and Engineering**, bearing **Roll No. 353**, has successfully completed seminar on **Augmented Reality In Collaboration With Spark AR**.

To my satisfaction and submitted the same during the academic year 2021-2022 towards the fulfilment of Bachelor of Technology under DBATU, under the Department of Computer Science and Engineering, Shree Siddheshwar Women's Engineering College, Solapur.

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ABSTRACT

An analysis of Augmented reality since 1968 first head mounted display system by Evan Sutherland and we will that object as "Sensorama". It wasn't computer controlled but it was the first example of an attempt at adding additional data to experience and now Augmented reality is achieved through a variety of technological innovations in their own way. AR is the future of design and we tend to agree. Already mobile phones are such an integral part of our lives that they might as well be extensions of our bodies; as technology can be further integrated into our lives without being intrusive (a la Google Glass) – it is a certainty that augmented reality provides opportunities to enhance user experiences beyond measure.

This will almost certainly see major advances in the much-hyped but still little seen. UX designers in the AR field will need to seriously consider the questions of how traditional experiences can be improved through AR – just making your cooker capable of using computer enhancements is not enough; it needs to healthier eating or better cooked food for users to care.

The future will belong to AR when it improves task efficiency or the quality of the output of an experience for the user. This is the key challenge of the 21st century UX profession.

INTRODUCTION

Augmented reality (AR) is a digital technology which is trying to spread and fix its root in key segments like Retail, Marketing, Real estate etc., apart from gaming. Augmented reality is the latest and fastest growing technology which has taken over Virtual Reality by surprise. The most important aspect of computer science is **problem solving**, an essential skill for life. Students study the design, development and analysis of software and hardware used to solve problems in a variety of business, scientific and social contexts. With augmented reality the data which you gets will be more informative and also you can see the augmented view of physical objects by simply using a smart phone or tablet .It is a great technology which can help our day to day life in various fields and even in medical and industrial applications. When points comes to tools AR have certain set of software to build like **Spark AR**.

LITERATURE SURVEY

Innovative approaches in the teaching of computer science are required to address the needs of diverse target audiences, including groups with minimal mathematical background and insufficient abstract thinking ability. In order to tackle this problem, new pedagogical approaches that make use of technologies such as Virtual and Augmented Reality, Tangible User Interfaces, and 3D graphics are needed. This paper draws upon relevant pedagogical and technological literature to determine how Augmented Reality can be more fully applied to computer science education. AR increases engagement and interaction and provides a richer user experience Research has shown that AR increases the perceived value of products and brands. Well implemented AR activity conveys innovation and responsiveness from forward-thinking brands. AR is mobile and personal and, therefore, hugely accessible to a rapidly growing smartphone market. AR is an inexpensive alternative to other media platforms as no specific media needs to be purchased Brands have access to detailed analytics enabling them to truly understand their audience Augmented Reality for all AR has a number of practical applications for organisations across different industry sectors. Some examples of industry specific applications include:

AR in-car dashboards to provide drivers with a range of technical and travel information.

Act as a virtual instructor for everyday maintenance (i.e. changing oil, checking tyre pressure).

Content

Collaboration With Spark AR

Is an augmented reality (AR) platform that can be used **by brands as a marketing tool**. Businesses and individuals can create AR effects, publish and share them, and Connect with other developers and creators. Effects can be shared on Instagram, Facebook, Facebook Lite, and Messenger. Languages are acts as base for these platform.



Fig. Sample Implementation of AR

Best Current Examples of Augmented Reality

- 1. Mobile App.
- 2. Nintendo's Pokémon Go App.
- 3. Google Pixel's Star Wars Stickers.
- 4. Disney Coloring Book.
- 5. L'Oréal Makeup App.
- 6. Weather Channel Studio Effects.
- 7. U.S. Army.

Augmented Reality is used in various fields like Education, Advertising and Promotion, Tourism and Sightseeing, Industries, Real Estate, Retail, Gaming, Entertainment, Automotive, Marketing, etc.

Why 'Metaverse'?

- There is a new digital reality on everyone's lips; the metaverse. Being touted by Facebook as the "next chapter" of the internet, many believe it is nothing more than a diversion to deflect from the company's tarnished reputation. I believe it is far more than that.
- When COVID-19 struck in 2020, around 320 million students were suddenly out of school.
 Though ed-tech companies jumped in to connect students with their schools, this was possible only to a limited audience.
- Many students in rural areas were not equipped with the required resources and, therefore, faced several challenges in this sudden shift to online learning. According to various studies, less than 50% of students who reside in rural areas have home access to the Internet.
- This caused millions of students to miss a year of schooling during the lockdowns. Of those, many will never return to school and this has thwarted India's years of efforts towards universalisation of education.
- This has been a problem for other countries as well. The UNESCO recently released a projection covering 180 countries, estimating that 24 million children may not return to education due to the pandemic. The largest share is in south and west Asia.

CONCLUSION

AR helps humans to challenge with problems as such Spark AR consist of knowledge of coding and imagination of human to have an creative idea and get implemented for the advance development for the growth of technology . building this future and that's because India's talent pool, the engineers, developers and creators, and your whole vibrant startup ecosystem are playing a huge role in shaping the future. Metaverse refers to a combination of multiple technologies, including virtual reality, augmented reality and video where users "live" within a digital universe

APPENDIX

- https://en.wikipedia.org/wiki/Menlo_Park,_California
- https://www.facebook.com/search/top?q=spark%20ar%20creators
- https://about.fb.com/news/