## **ASSIGNMENT**

February 18, 2022

On

# "Emerging Technologies in Healthcare"

Submitted by: Priyanka Harde

Roll No.:21111039



#### NATIONAL INSTITUTE OF TECHNOLOGY

Under the supervision of : SAURABH GUPTA

### Contents

1	<b>A</b> (	CKNOWLEDGEMENT	3
2	IN	TRODUCTION	3
	3	Top 10 Emerging Technology Trends of 2021	3
	3.1	Conclusion	7

### 1 ACKNOWLEDGEMENT

I would like to express my sincere thanks and gratitude to Saurabh Sir for letting me work on this project. I am very grateful to him for his support and guidance in completing this project.

I am thankful to my parents as well. I was able to successfully complete this project with the help of their guidance and support. Finally, I want to thank all my dear friends as well..

### 2 INTRODUCTION

Emerging technologies are technologies whose development, practical applications, or both are still largely unrealized, such that they are figuratively emerging into prominence from a background of nonexistence or obscurity.

### 3 Top 10 Emerging Technology Trends of 2021

#### 1. Internet of Behaviors (IoB)

With the help of IoB, businesses will be able to monitor consumer and their behaviors and can take its advantage for their respective platforms. For example, a health-tracking application can get the data regarding your physical activity routine, diet, sleep, etc. and this data can be used to bring further behavioral change such as by providing you customized health plans, etc.

#### 2. Hyperautomation

Hyperautomation is a business-driven, disciplined approach that organizations use to rapidly identify, vet and automate as many business and IT processes as possible. Hyperautomation involves the orchestrated use of multiple technologies, tools or platforms, including: Artificial intelligence (AI).

#### 3. Edge Artificial Intelligence

Edge AI takes and processed the data to the nearest point of user interaction whether it be a computer or an Edge server, or any other device. Amazon Alexa, Google Maps, Drones, etc. are some of the common examples that are supported by the Edge AI.

#### 4. 5G

5G technology is indeed one of the trending technology and need of the hour also as almost every major technology whether it be Cloud Computing, Internet of Things (IoT), Blockchain, Virtual Reality or any other primarily rely on better Internet connectivity. The traits of 5G technologies like high internet speed, lower latency, better efficiency, high throughput, etc. will take the

internet connectivity game to the next level and help in unleashing a new realm of technological possibilities for various other technologies and businesses.

#### 5. Cybersecurity Mesh

As data is becoming the most valuable asset for any organization, there is a need to protect these data and information from any kind of cyberattack or data breach. If we particularly talk about Cybersecurity Mesh, it provides you with a more flexible and distributed approach for cybersecurity measures. It enables the security perimeter to be defined around the identity of a person or thing. In more simple words, with the help of Cybersecurity Mesh, anyone can get access to any digital asset in a secured manner – without depending on the location.

#### 6. Distributed Cloud

A distributed cloud is an architecture where multiple clouds are used to meet compliance needs, performance requirements, or support edge computing while being centrally managed from the public cloud provider.

#### 7. Augmented Reality and Virtual Reality

Virtual Reality (VR) is concerned with the creation of a simulated environment of the physical world with the help of computer technologies, Augmented Reality (AR) helps to the enhancement of that environment using computer-generated elements. They are having a wide

range of use in numerous domains whether it be gaming, transportation, education, healthcare, or any other.

#### 8. Quantum Computing

It is basically concerned with the process of computing that is primarily based on quantum phenomena such as superposition, entanglement, etc. The technology is having its potential use in various domains such as banking and finance, healthcare, logistics, and many more.

#### 9. Total Experience (TX)

It basically refers to the integration of multi-experience with customer experience, user experience, employee experience in order to provide a better and unified overall experience. Total Experience (TX) will surely help the businesses to take advantage of situations like distributed customers, remote work, etc.

10. Blockchain A blockchain is a distributed database that is shared among the nodes of a computer network. As a database, a blockchain stores information electronically in digital format. Blockchains are best known for their crucial role in cryptocurrency systems, such as Bitcoin, for maintaining a secure and decentralized record of transactions. The innovation with a blockchain is that it guarantees the fidelity and security of a record of data and generates trust without the need for a trusted third party.

#### 3.1 Conclusion

One may have probably figured out that all of these new emerging technologies are linked in some or the other way. These are the technology trends of the future, and they will have a big impact on other emerging trends that are to be seen around the world.

Reference - Wikipedia, geeks for geeks, investopedia, board in finity