

## METaverse: HOW DOES IT AFFECT TELEHEALTH AND HEALTHCARE?

Ashley Todd

### ABSTRACT

This paper includes data and information over two specific research questions: "How does or how will the metaverse affect telehealth?" and "Who and how are the stakeholders affected?". I collected data from other online sources, my class textbook, and discussions/interviews. I also conducted a stakeholder analysis to describe who and how people are affected by this topic. There have been many studies over metaverse and telehealth, however, many studies are predictions of the future. There are minor implications of this study as most of it is also predictions or thoughts of others. I was able to conclude that telehealth, an already popular concept, is going to grow as the metaverse grows. Additionally, the metaverse is expected to rapidly grow soon as technology is advancing quickly.

*Key words: metaverse, telehealth, healthcare*

### Background

Metaverse is an emerging 3D virtual space where humans can experience life in ways they cannot in the physical world. It is expected to grow at a rather fast rate due to the increase in demand from the entertainment and gaming industries. According to research, "The global Metaverse Market is projected to grow from USD 61.8 billion in 2022 to USD 426.9 billion by 2027, at a Compound Annual Growth Rate (CAGR) of 47.2% during the forecast period" (MarketsandMarkets Research Pvt. Ltd., 2022). The metaverse will not only be used for

entertainment and gaming but it can also be a part of the education and training sectors. It is expected to be used worldwide and for all ages. The metaverse is nothing to be scared off and has the exciting potential to make life easier, especially for healthcare.

### Introduction

Virtual reality (VR) devices are well-known already around the US. Despite them being around for years, sales took off during COVID. Since people were stuck in a house all day, they began searching for more sources of entertainment. This was only the beginning of the ever-growing metaverse.

This market is expected to grow globally. North America, Asia Pacific, Europe, Middle East and Africa, and Latin America are ones that are listed on MarketsAndMarkets article. However, according to MarketsandMarkets (2022): "By region, North America is expected to account for the largest market size during the forecast period" (MarketsandMarkets Research Pvt. Ltd., 2022). Having the ability to offer quality services along with the fastest services through their network structure is a large advantage that North America, which includes the US and Canada, has over other regions.

This discussion has led me to asking my research question: how does or how will the metaverse affect telehealth? The metaverse is ever-growing and eventually could take over for face-to-face interactions. My hypothesis is that the metaverse will positively impact telehealth and its stakeholders as it has the ability to open many paths and give the opportunity to be used worldwide. Not only can it help offer faster services, but it can also offer those services at a quality rate. There are limitations to this, and they will be discussed below. To support my study, I collected data and information through my Global Circles experience and online articles. Global Circles provides programs that allow individuals communicate internationally over certain topics. This specific topic was widely talked about in the Global

Circles chat, and I was able to gather information from not only other US residents, but also people from other countries.

### **Stakeholders in Healthcare/Telehealth**

There are many stakeholders for each different issue. A stakeholder “refers to a persons and groups that affect, or are affected by, an organization’s decisions, policies, and operations” (Lawrence & Weber, 2023). In this case, telehealth and healthcare is a very large field that can affect hundreds of different people, programs, and organizations. Stakeholder analysis is “an important part of the modern manager’s job is to identify relevant stakeholders and to understand both their interests and the power they may have to assert these interests” (Lawrence & Weber, 2023). I will be discussing and analyzing a few major stakeholders for the purpose of this paper. The other research question I will identify is who and how are the stakeholders affected? First and foremost, the hospital owners are vital internal stakeholders. Using telehealth helps lower cost for hospitals as they do not have to accommodate patients in person, reduces patient transfers, and frees the emergency department and urgent care centers for those who need it. It also allows for the cost of supplies to go down for hospitals. The power hospital owners have is informational power, as they see everything first-hand and understand how the metaverse affects the telehealth program.

Employees and managers are also vital internal stake holders that hold informational power. Metaverse and telehealth allows easier management strategies and makes seeing more patients in a timely manner easier. Suppliers are vital external stakeholders as the metaverse allows telehealth providers to gain more users and customers. They would have economic power since they are providers. Customers/patients are extremely important external stakeholders, as they are the ones telehealth must satisfy to be able continue the service and they have high economic power. Telehealth allows getting

seem by doctors for minor issues easier and offers more affordable options. Some patients live a very busy lifestyle where going to the doctor for minor things often get pushed off. Telehealth helps work around those schedules and saves the individual a trip to the doctor physically.

Government and regulators are important external stakeholders as they hold legal power. The government is considered a regulator in this case as it provides the laws concerning many telehealth related areas. Regulations such as requiring physicians to be licensed to administer medical advice or care via telehealth are often put into play. This helps ensure that the best and most informed medical advice is given.

### **Telehealth Data**

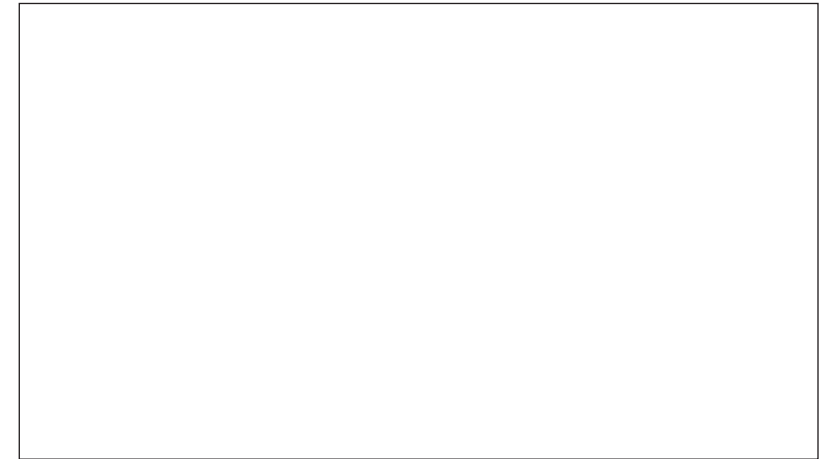
As stated above, telehealth is a valuable tool in healthcare and can be very beneficial to both internal and external stakeholders. According to the CDC, “In 2021, 37.0% of adults used telemedicine in the past 12 months” (Lucas & Villarroel, 2022). Additionally, the percentage of adults who used telemedicine increased with education level and varied by family income and region (Lucas & Villarroel, 2022). I participated in a Global Circles discussion, “Metaverse and virtual life - the implications on society, education, and the future of work”, on March 20th and March 31st of 2023. In my Global Circles experience, I got the chance to talk via zoom with residents from the US along with people from other countries and gather information on this topic.

Each country had a different perspective on telehealth, and some did not know what telehealth was. I along with one other person from the U.S., shared our experiences and I was able to note that telehealth was a common thing to see. We both commonly use telehealth along with knowing many other people who utilize it. One lady from Tunisia was not familiar with telehealth and was also not a fan of the idea in certain situations such as emergencies. I was able to collect that we

all believe the metaverse will positively impact telehealth resulting in the stakeholders also being positively impacted. The easier metaverse makes telehealth, the better the patients are and the more efficient hospitals can perform. After talking with multiple people around me and around my hometown, telehealth is widely known and used. I personally have used telehealth and it was fast and convenient. There was less hassle for me and the staff, along with quality service. I did not have to take off work or school and was able to complete the appointment within fifteen minutes. This was extremely helpful, and I was very satisfied with the services and plan to use it again. As the world develops, eventually telehealth will be inevitable when it comes to dealing with the small, rather simple medical needs. Do not use telehealth for urgent or serious medical needs”.

### **Growth of Metaverse in Healthcare/Telehealth**

Metaverse and telehealth are something that will be growing over the next several years. A LinkedIn article stated, “during the projected period of 2024–2030, the market for healthcare in the metaverse is anticipated to increase by USD 5,373 million at a CAGR of 48.3%” (Kolhe, 2022). Figure 1 shows that data. Growth is a measurement for success and if the metaverse can benefit healthcare in general, it will be worth it long term. Not only is it beneficial for one certain age group, such as 20-40 years of age, but all age groups also seem to utilize the fast and easy service. Following the last quote it states, “to strengthen their positions in the market and meet the needs of healthcare in the metaverse across multiple industry end-users, major firms have chosen partnerships, collaborations, acquisitions, and product creation as their primary organic growth strategy” (Kolhe, 2022). Eventually, metaverse and telehealth will be used world-wide and will be pushed upon customers.



### **Analysis of Data**

After researching and talking with multiple people, it seems as though the US utilizes telehealth, and many seem to like it. Not only is the market for healthcare in the metaverse anticipated to increase, but it is also suggested that healthcare is going to be one of the top utilizers for metaverse. I was slightly surprised that all age groups utilized and liked telehealth, as the older generation always seems to like to do things the old way and in person. Seeing that all age groups can and will adapt to these changes makes our future hopeful. The development of the metaverse this far has been significant and based on data it seems as though it is about to take off on the growth chart.

### **Conclusion**

Overall, metaverse plays a large and important role in telehealth and healthcare in general. The metaverse is the foundation of telehealth and without it the chances of having telehealth are slim. Everyone will adjust as it grows, as well as the program itself. All stakeholders must prepare for the growth especially the government regulators and hospital owners. More regulations will have to be

implemented to ensure telehealth is done safely and effectively. Along with regulations comes laws that must be followed. As the metaverse grows, the more difficult it can be to control each factor which requires stakeholders to be more involved. The metaverse has exciting potential for people across the globe. ■

## REFERENCES

- Lawrence, A. T., & Weber, J. (2023). *Business and society stakeholders, ethics, public policy*. McGraw Hill Education.
- Lucas, J. W., & Villarroel, M. A. (2022, October 12). Products - data briefs - number 445 - October 2022. *Centers for Disease Control and Prevention*. Retrieved April 28, 2023, from <https://www.cdc.gov/nchs/products/databriefs/db445.htm>
- Kolhe, H. (n.d.). Healthcare in metaverse market - A big revolution in healthcare industry expected to hit with a CAGR of 48.3% over the forecast period 2024 – 2030. *LinkedIn*. Retrieved April 26, 2023, from <https://www.linkedin.com/pulse/healthcare-metaverse-market-big-revolution-industry-harsh-k-?trk=pulse-article>
- MarketsandMarkets Research Pvt. Ltd. (2022, November 17). Metaverse market size projected to gain US\$426.9 billion by 2027, growing at a CAGR of 47.2%-report by MarketsandMarkets™. *GlobeNewswire News Room*. Retrieved March 20, 2023, from <https://www.globenewswire.com/en/news-release/2022/11/17/2558308/0/en/Metaverse-Market-Size-Projected-to-Gain-US-426-9-billion-by-2027-Growing-at-a-CAGR-of-47-2-Report-by-MarketsandMarkets.html>

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■ **Ashley Todd** is an IU East Student