

The Impact of Multimedia Technologies on Our Society

Arepalli Sathibabu^{1*}, Sunil MP²

¹ KARE, India.

² Assistant Professor Department of Electronics and Communication Engineering, Faculty of Engineering and Technology, JAIN (Deemed-to-be University), India.

*Corresponding Author Email: ¹ arepallisathibabu@gmail.com

Abstract

In this research paper the impact of the multimedia technologies like the social media, entertainment platforms on society has been discussed. This has been given six sections they are as introduction, material methodology, results, discussion and conclusion. The introductory section has provided the brief introduction about the technologies regarding the multimedia, their latest version and the latest trends for using such technologies. OTT platforms, social media, Ed-tech platforms and other skill learning platforms are some of the popular sources for multimedia technology. The next parts have been discussed about the material and methods section this has been deals with the methodology that have been followed for this research. The data have been collected with the help of secondary data collection method, it had been analysed further with the help of thematic data analysis. Further the research approach that has been used here is inductive research approach. The next part has given a detailed rationale of the topic with the help of stats and figure in the form of graph. Here the global internet usage, the content that are available in the OTT platforms have been available, the effects of using the social media has been critically discussed.

Keywords

Learning, multimedia, Society, technology.

INTRODUCTION

Multimedia technologies are the type of technology that helps in creating and transmitting the message. Some of the great experiences of multimedia are like going to the movies, watching televisions, playing video games and searching through the internet. In other words it can be said that multimedia is the type of technology or the application which manipulates text and data like images, sound, and full motion videos [1]. There is a huge importance of multimedia in today's day to day life especially for the students. These days the multimedia has been helping the students to learn more languages with the help of the songs, audio and animations. Most importantly it has helped a lot in learning the language that is English with the help of learning the English grammar, English vocabulary and the pragmatic knowledge. In our society there is a huge impact of social media in changing the behaviour of the students as well as the working professionals. It has affected the student both positively and negatively, it seems that it is going to rise in future. Some of the popular examples of multimedia are television shows. Some of the popular destinations of entertainment are Amazon prime, Netflix, and others. In multimedia the social media can be considered as it is yet another way of entertainment for the people.

In this study the importance and impact on multimedia technology has been discussed further in this research in four sections like materials and methods, results, discussion and finally the conclusion part. The focus here will be the technological transformation in the field of multimedia and the students. The reason is quite evident that in today's

environment most of the users of multimedia are teenagers or the people of the age group between the 18 years to the 35 years.

MATERIAL AND METHODS

Material and method sections have discussed the research methodology that had been followed for the preparation of this research. In this research the data has been collected on the basis of a secondary data collection method. The collected data had been analyzed on the basis of thematic data analysis. Secondary data collection is the type of data collection which involves collection of the data on the basis of books, journals, and other theoretical methods of data. The data analysis method that has been in the preparation of this research paper is thematic and it is generally done with the help of themes that are prepared on the basis of the aims and objective of the research topic [2]. At the same time, the research approach that has been used in this research is an inductive research approach. Inductive research approaches that have been included in the research in case a research will be done on the theoretical basis rather than the quantitative. The research topic is based on the impact of multimedia technology and for that there will be themes based on the importance of the multimedia, and both its impact positive and negative [3]. In the next section results and in depth rationale has been provided and with this it has focused to draw a significance of the research topic.

RESULTS

Today the importance of multimedia cannot be degraded in this fast changing world as it is helping in effectively

communicating with others, watching shows that give thrill and over a good sort of entertainment. Social media can be considered as one of the multimedia channels as billions of users are posting their activities either for the purpose of entertainment or the purpose of information.

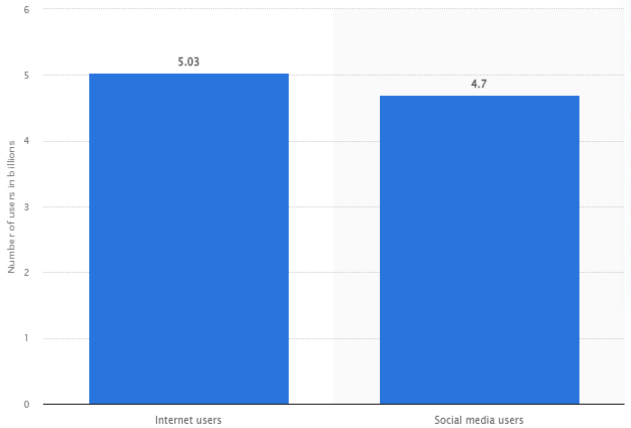


Figure 1: Worldwide digital population

The importance of social media can be understood with the help of the graph that has been provided above. According to the figure that has been provided above, the total number of internet users worldwide according to the year 2022 were around 5 billion users [4]. The total number of social media worldwide is around 4.7 billion which is pretty much similar to that of the total number of internet users [4]. In case the data is considered on the basis of continent wise or region the highest number of online users are from Asia which is over 2.8 billion users [4]. In Asia the country which had the highest number of internet users are India and China, both of these countries having approximately 658 million users. Due to these, internet consumption has increased in these countries in the recent decades. The market size of both the countries has been significant when it comes to the online presence and the major multimedia giants like face book, integral, snap chat and Netflix earns millions and billions form Indian market.

The impact in India or any other country can be seen in two different ways: positive and negative impacts and both of them have been discussed below. In India there students of colleges and university have got the opportunity to learn and interact with the people of different countries especially from the countries belonging to the Anglo-Saxon community [5]. Along With it had helped these students in increasing their cognitive achievements, academic achievements, and other comprehension. It is the multimedia technology that has provided the online tutorial facilities for the students who are living in distant locations. Today it is popularly known as digital education or e-learning.

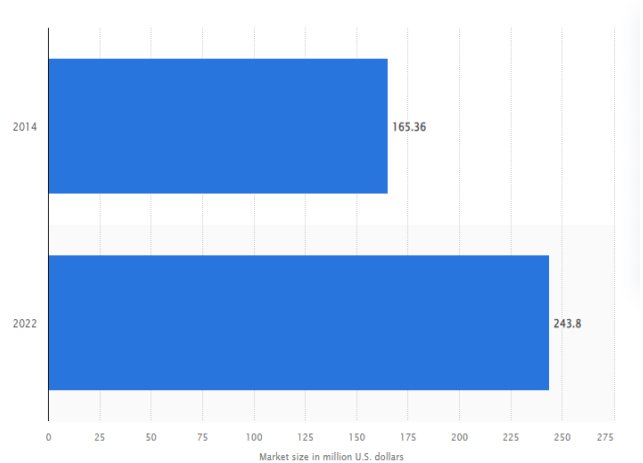


Figure 2: Size of the E-learning market comparison with the year 2014 to the year 2022

In the second figure it can be understood the projection of digital learning from the year 2014 as compared to the year 2022. In the year 2014 the total market size was around 165.36 billion US dollars and in the year 2022 the total market size is around 243.8 billion US dollars [6]. The market size is going to increase further in future and as the digitization of education has been given at a rapid pace. In this way it can be said that multimedia has impacted the multimedia and famous end-tech companies Demy and Unacademy are the popular end-tech companies which are operating their business worldwide.

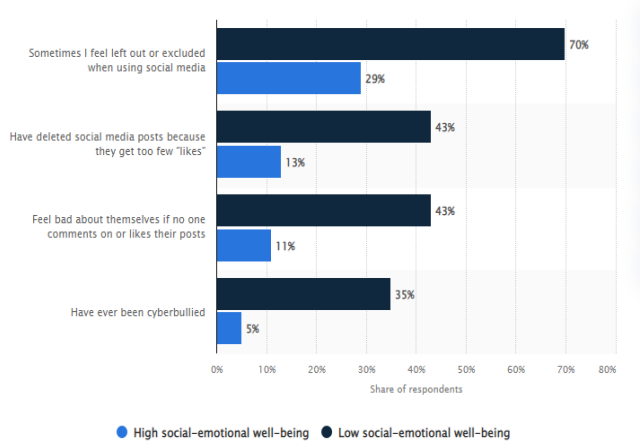


Figure 3: Negative Social media effects on the US Teens as of the year 2018

All the online learning platforms have somehow helped the student to learn new skills and at a minimal cost with the proper flexibility of time. Not all but some of the multimedia like the social media had a grave impact on the mental health of the teens especially the students of higher education. The figure 3 has given the stats about how the us teens had been affected with social media. According to the graph, 70% of the US teens who have low social emotional wellbeing have responded that they feel left out themselves when they do not use social media [7]. While, the teens with high social

emotional wellbeing has responded to 29% [7]. Also the 35% of the low emotional wellbeing teens have responded that they have been cyber bullied or faced any other type of online harassment but at the same time teens with the high social wellbeing the percentage was around 5% [7]. These figures can be a wakeup call for all the social media used as well for the parents of those teens who are having low social emotional well-being.

It also comes with the end tech companies as many of these companies are targeting the students through aggressive marketing. It is yet another way which is creating a burden on the children as they are taught the things by these online education companies which may be not relevant to their age. It could be understood with the help of examples like learning coding is great but it is better to teach students who have genuine interest in coding that it should not be forced on any of the children. There are many online education platforms just for making money [8]. They are forcing this to these young minds so that they will learn these skills which are totally a ridiculous idea. Today the online contents show the content that is not relevant to the children due to a lot of sexual vulgarity and hence for children it is not a better option to take as much advantage of the multimedia. The internet surfing is also not safe for the young kids due to the presence of vulgar contents in clicks away. Many of the teenager's agave got addicted to the intimate content. The internet has been full of such contents hence it is very difficult for an ordinary student today to get away from such contents. It could be understood with the help of an example that according to Statista 87% men of USA of the age group of 18 to 35 years watch intimate content through the internet while 28% of the teenage women are involved in watching the online intimate content [9].

The multimedia industry has been growing in recent years and there has been a growth in the global revenue as well. Famous tech giants like Face book are using the technology sphere to establish their business with the help of ads that appear during shows. Major end tech companies are from India and the reason is quite clear as the possibility of generating higher revenue is good in India [1]. With the help of multimedia, people understand the culture and languages of the other nations. It could be understood with help of example that if a person has never traveled to the country of USA but if it had watched various shows of US of the movies it could figure out that which kind society are US. At the same time if a movie is based on the history of a country the viewer could understand the historical importance of that country. Countries like the US and China use those to promote their country's culture as well as the soft power of that country.

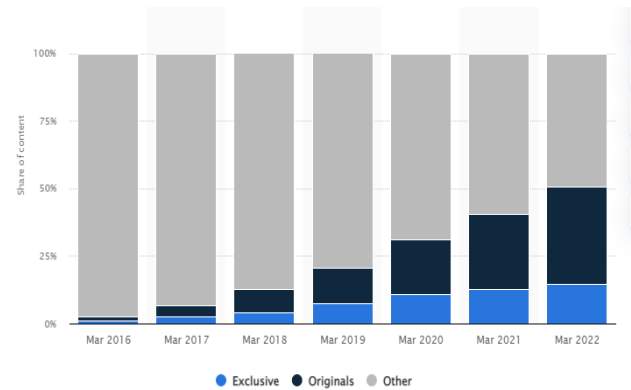


Figure 4: Distribution of the Netflix Content

This can be understood with the help of the content that is available by the various OTT platforms to understand the culture and the behavior of those countries. OTT platforms are those forms of multimedia which is the latest concept which provides exclusive content for the viewers and it needs a monthly subscription. The top two OTT platforms of the world are Amazon prime and the other is Netflix [2]. Between both of these Netflix's is more popular worldwide due to the type of content which it provides. Today the trend has been changing and people are fonder of watching the right content rather than watching the popular figures. There has been a graph that has provided the necessary detail of the contents of Netflix from the year 2016 to the year 2020. In the year 2016 the company was providing the contents that were based on other tastes and the share of the original content as well as the Exclusive content was 1.3% and 1.5% respectively [3]. But later on the company had understood that there will be consequences for the company if it will follow the similar trends hence it had made various changes in the content and it started to provide the content which were original and exclusive. In the year 2022 the company had started providing content which was based on the exclusive and original and in the year 2022 their 14.8% of the content came under the exclusive category. 35.9% of the contents came under the category of the originals and later was based on other content [3]. It has also been mentioned by the people that content these days are not based on the children under the age of 18 years. For that purpose, most of the OTT platforms make a separate section for the children which are full of the child contents.

One of the prime reasons behind this is that tot platform has become the one of the prime sources for entertainment not only for the adults but also for the children as well. The television viewer has been reduced in the recent years as smart phones replace this in recent years. As of the year 2022 the total number of Smartphone users was around 1.16 billion [4]. According to statista these trends seem to increase further in future and in the year 2028 the total Smartphone user expected to rise to 6.2 billion users [4]. In the previous sections it had been figured out that the highest internet users are from countries like India and China and Smartphone users are going to increase in the coming years. Society has been

affected due to the tremendous effect of social media. There has been progress in the field of education and gaining knowledge through the online mode. Education is like the skill and art of programming, data science, and machine learning. With the help of social media people have promoted their product through the online advertisement, posts and organizing webinars. These are some of the benefits that have occurred to the society but at the same time it has increased the competition.

In the perspective of engagement the multimedia had played a key role as it had helped to get together with all the other people. These engagements had benefited to operate the business successfully during the Covid-19 pandemic of the year 2020. During the time of pandemic when everything was uncertain for when the business and the school and colleges will be open was not sure. During that period due to availability of the video conferencing and applications like Skype and Google meet all the important business meetings were held successfully. At the same time the government also used those platforms to propagate their message to the policy of their country [5]. Also today all the important announcements by the head of states are offered on social media platforms like twitter. These are generally done because the influence of social media is huge and these days the posts that are done on these social media by the political leadership becomes the news. Many times multimedia teaches useful lessons to the people with the help of the movies and television shows [6]. Many television shows become the best source to highlight the important issues that are ongoing in society. These moral values and motivational lessons are given to each and every person who enjoys and learns those lessons at the same time.

Excessive involvement into the social media as well as in OTT platforms had diverted the youth population and they have become addicted to though voyeurism that these platforms are offering. The social media companies have been taking those advantages and they have made that multimedia in a way that it appears addicted. The addiction is not only with social media and OTT but also the gaming platforms. Some examples of popular gaming platforms are like PUBG, Free Fire and many more.

DISCUSSION

The multimedia had a grave impact on each and every section of the society especially on the younger generation. In the above section it has been covered in depth with help of graphing the importance of multimedia in our society. The first graph that has been provided is based on the worldwide digital propulsion and from that as of the year 2022 total number of internet users worldwide is around 5 billion and the total number of social media is slightly less than the total number of social media users that is 4.7 billion users. From this it can be understood that today the internet has reached distant places and all of them are connected digitally. The multimedia is a media which provides entertainment, educational and useful information to the people through

different mediums. It comprises the social media, OTT platforms, televisions and other online education providing platforms. Among all the sources of the multimedia most popular is social media as worldwide almost every internet user is connected with any type of social media platform. After the social media platform the other multimedia which the people consume the most is the OTT platforms. It has almost replaced the televisions in terms of providing a whole lot of entertainment to the people. After the covid pandemic it had also replaced the cinema hall in terms of providing the movies and other content.

The OTT platforms like the Amazon prime and Netflix become more popular after the covid lockdown when the theaters were shut down and the producers have compelled to release their movie on these platforms. Due to this these platforms started gaining popularity after the pandemic and the policy of these OTT platforms regarding the content also responsible for its popularity in such a short period of time. In the fourth graph it has been discussed that in the year 2016 the content that were provided by Netflix were mostly based on the other types and there was a scarcity of original as well as exclusive contents. But in the coming year the company had changed their policy regarding the content and it started to include more and more original content and more exclusive content. And as of the year 2022 in the total number content that Netflix provides 35 % among them comes under the category of original. Also it had increased the content that were based on the exclusiveness and among the exclusive content category the 14.8% of the content were based on the exclusive category.

Multimedia has also helped to provide quality education to the students who are living in distant places at affordable cost. After the pandemic the online mode started gaining popularity as the school and colleges were shut down and the teacher found that the best way to continue the education of the students that have been halted due to the spread of virus. Famous video conferencing applications like Zoom, Google meet and whatsapp have become popular for taking online live classes. In the meantime it was also used by the business managers for online video conferencing. These are the online video conferencing applications as well as the soft ware's that became popular in that particular period of time. Many of the Ed-tech startups as well as the companies gained popularity and had generated a huge amount of revenue. Some of them even become multibillion industries and among them Byju's of India is the best example. Not only the education based platform became popular in the meantime but also the skill based training platforms like Udemy, skill share have also gained popularity.

Digital platforms have been growing at a rapid pace and it is clearly evident that none of the spread of viruses has made any impact on the digital infrastructure across the globe. The figure two has provided a graph that is pretty much evident that the digital infrastructure is going to become more popular in terms of online education. In the year 2014 the size of the E-learning market worldwide was around 165 billion

US dollars but in the year it had become 243.8 billion US dollars. Along with these the students as well as the teenagers have been affected by different types of metal pressure as well as disease. All of this has happened due to the social media usage and consumption of the contents that are not relevant for a particular age group. Many of the teenagers have been affected by the addiction of the contents like voyeurism and watching the intimate contents. Not only with the online content consumption but these young brains are also affected by the online cyber bullying by other people and this has been resulted due to getting access to social media at an early age of 18 years.

CONCLUSION

Multimedia has become an integral part of the everyday life of today's people whether it is through social media or through other platforms that provide content for entertainment purposes. There have been many occasions that usage of multimedia has become mandatory like the whatsapp and YouTube. All of the above have a grave impact on society and hence to build a clear understanding about the impact of multimedia on society this discussion has been made. It had been explained in five sections namely the introduction, material and methods part, results and the discussion part. In the introductory part a brief background of the research topic has been explained with its significance in today's society. Multimedia has acted as the most effective tool to convey one's message to the people of distant places. It has also been the best source of gaining a good sort of knowledge as it has been available free on the internet. The next section has discussed the material and method that have been used for the conduction of this research. In this section the data analysis, research approach and data collection method have been discussed. The research approach that has been used here is an inductive research approach, while the data that have been collected for this research is based on a secondary data collection method. The data have been analyzed with the help of thematic data analysis method with the preparation of the themes. Later the discussion has been provided with the results where an in depth rationale regarding the topics have been discussed.

In the rationale part the significance and its impact whether it's positive or it is negative has been discussed thoroughly with the adequate figure and graph. After that, all the important points and useful findings have been critically discussed in the discussion part. The discussion part has been however aimed to figure out the impact of multimedia on society and the focus was the people of the younger generation.

REFERENCES

- [1] Manogaran, Gunasekaran, et al. "Wearable IoT smart-log patch: An edge computing-based Bayesian deep learning network system for multi access physical monitoring system." *Sensors* 19.13 (2019): 3030.
- [2] Ismail, Ahmed, Hong-Linh Truong, and Wolfgang Kastner. "Manufacturing process data analysis pipelines: a requirements analysis and survey." *Journal of Big Data* 6.1 (2019): 1-26.
- [3] Abbas, Jaffar, et al. "The impact of social media on learning behavior for sustainable education: Evidence of students from selected universities in Pakistan." *Sustainability* 11.6 (2019): 1683.
- [4] Statista. Worldwide digital population July 2022, (2022). <https://www.statista.com/statistics/617136/digital-population-worldwide/> Accessed 18 January 2023.
- [5] de Groene, Donna, et al. "Bird exploitation in an Early Anglo-Saxon community: taxonomic and biometrical investigations at West Stow." *Quaternary International* 543 (2020): 81-92.
- [6] Statista. E-learning market size 2014 and 2022, (2022). <https://www.statista.com/statistics/501104/worldwide-elearning-market-size/> Accessed 18 January 2023.
- [7] Dixon.S . Statista. Negative social media effects according to U.S. teens 2018, by emotional well-being, (2022). <https://www.statista.com/statistics/934121/negative-social-media-effects-usa-teenagers-emotional-well-being/> Accessed 18 January 2023.
- [8] Chen, Tinggui, et al. "Analysis of user satisfaction with online education platforms in China during the COVID-19 pandemic." *Healthcare*. Vol. 8. No. 3. MDPI, 2020.
- [9] Buchholz.K . Statista. How Much of the Internet Consists of Porn?, (2022). <https://www.statista.com/chart/16959/share-of-the-internet-that-is-porn/> Accessed 18 January 2023.
- [10] Rajan, Thomason. "The Unusual Case of BYJU's: Creating One of the World's Most Valued Educational Technology Companies from India." *Indian Journal of Marketing* 52.4 (2022): 8-23.
- [11] Martínez-Sánchez, María Eugenia, Ruben Nicolas-Sans, and Javier Bustos Díaz. "Analysis of the social media strategy of audio-visual OTTs in Spain: The case study of Netflix, HBO and Amazon Prime during the implementation of Disney+." *Technological Forecasting and Social Change* 173 (2021): 121178.
- [12] Stoll.J . Statista. Share of Netflix content available globally by type 2016-2022 (2022). <https://www.statista.com/statistics/859550/netflix-content-availability-worldwide/> Accessed 18 January 2023.
- [13] Degenhard.J . Statista. Smartphone users in the World 2013-2028 (2022). <https://www.statista.com/forecasts/1143723/smartphone-users-in-the-world> Accessed 18 January 2023.
- [14] Del Rio-Chillcce, Angie, Luis Jara-Monge, and Laberiano Andrade-Arenas. "Analysis of the Use of Videoconferencing in the Learning Process During the Pandemic at a University in Lima." *International Journal of Advanced Computer Science and Applications* 12.5 (2021).
- [15] Cingel, Drew P., and Marina Krmar. "Prosocial television, preschool children's moral judgments, and moral reasoning: The role of social moral intuitions and perspective-taking." *Communication Research* 46.3 (2019): 355-374.