EFFECTS OF DIGITALIZATION ON HUMAN HEALTH

Abstract

We all know that our modern society is digital-based. The role of digitalization in the age of modern globalization is undeniable. Looking at today's world, one can understand how deeply we are involved with digital gadgets. Every moment we have connected ourselves with technology. As a result of technology, we have gained a lot of knowledge in a very short time. We have come to know a lot about our physical immunity power. The digital revolution has undoubtedly transformed various aspects of healthcare, offering unprecedented opportunities for improving patient care, enhancing medical research, and increasing access to health information. The widespread adoption of digital technologies, such as electronic health records, telemedicine, wearable devices, and health apps, has facilitated remote monitoring, personalized medicine, and patient engagement, leading to improved healthcare outcomes and cost efficiency. One of the significant benefits of digitalization in healthcare is the democratization of information. Patients now have easy access to vast amounts of health-related data, enabling them to become more informed and proactive in managing their health. But due to the excessive use of digital gadgets; people are suffering from various new diseases. Various types of problems arise in our life through the use of digital gadgets. Children have addicted themselves to various types of digital games. So in my study, I have tried to highlight how digitalization has affected human health. This present study deeply analyzed the positive and negative effects of digitalization on human health. It also finds out the criteria for well-being. In this present study was qualitative approach and data were collected from various secondary sources i.e. different types of Articles, Journals, Wikipedia, Websites and various e-sources etc.

Key words: Digitalization, Human Health, Social media, Happiness, Online health care etc.

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I. INTRODUCTION

With the progress of civilization, the way of thinking of people has changed. People are combining science and technology for healthy living. It can be said that people organize so much to meet their daily needs. Humans are busy from waking up in the morning to going to sleep at night. Humans do not rest like technology. The world is now in the grip of ultimate advancement in science and technology. Every person in the world today is playing games on their mobile, laptop, or computer with an internet connection. In Global Overview Report 2021, a total of 7.83 billion populations out of 4.66 billion people have access to the internet. The number of people using the internet in daily life is increasing very rapidly in day-to-day (Singh et al., 2022). To tell the truth, technology has given the most advanced gifts to people. Everyone is using technology in their way. As a result, the good and bad of technology are intertwined with the good and bad of people. The same thing is sometimes an example of success, sometimes becoming a cause of failure.

We all know that modern society is the era of information technology. The close relationship of information technology with human life. People are always ready to make society and civilization better. The quality of human life has indeed been improved from the traditional way of life, but the thinking and consciousness of the people as a whole have not changed. As a result, social ills are spreading on the internet. That's why you can see different types of people on social media. Some are praising and some hate the same work. Social media is the easiest way to present yourself, but if you don't manage it right, you can lose yourself very easily. People are now more inclined to spend time alone with the ultimate opportunity for self-absorption thanks to technology. And thereinlays the problem.

The total development of a person is never possible without the development of thought. As people are sitting day and night with laptops or mobile phones, they are now more obsessed with the virtual world than the real world. They consider friends in the virtual world as their best friends. As a result, relatives associated with real life are gradually moving away. This is having a great impact on mental and physical health which is constantly making him deviate from society and health. Although people are somewhat aware of education, health awareness is less and nowadays it is decreasing day by day.

Due to modern technology, today we are wasting time sitting in the same place for hours, and with that day by day our body accumulates fat, performance decreases, stress increases and reluctance to work increases. It can be said that as a result of growing reluctance towards all activities, body weight is increasing, and health is breaking down. Pain in arms, legs, and back. Starting from a headache, a kind of pressure is noticed in the eyes and mouth. And a strange fickle tendency to be in the mind about everything is consuming people day by day. No one is free from this terrible grip of modern society. Modern life and technology are now becoming complementary to each other. Due to modern technology, the medical system has reached the pinnacle of development today. That is, without technology, the all-round development of human life is no longer possible. Between the pros and cons of technology, we have to choose the formula for a healthy and normal quality of life.

II. OBJECTIVES OF THE STUDY

The following objectives are determined for the present study:

1. To find out the meaning and concept of Human Health.
2. To analyze the concept of Digitalization.
3. To find out the Criteria of Wellbeing.
4. To find out the Positive Effects of Digitization on Human Health.
5. To find out the Negative Effects of Digitization on Human Health.

III. METHODOLOGY OF THE STUDY

The current study is qualitative in nature. The researcher collected data from various secondary sources there are websites, books, journals, research papers, research articles, newspapers, and various e-sources, etc.

IV. NEED AND SIGNIFICANCE OF THE STUDY

In the modern era, we move forward depending on digital platforms like Facebook, Twitter, Snapchat, YouTube, and Instagram. From teenagers to elderly grandparents, everyone uses social media to escape from their busy schedules, find each other, relieve stress and depression, improve health, and share their thoughts with the world. As a result of modern technology, we can learn about various medical topics at home which help us to understand and know information about medicines, diagnosis, modern surgical procedures, and doctors very easily. But many times we involve ourselves with social media in such a way that we cannot control ourselves and it directly affects our health. Various types of problems arise in our life through the use of excessive social media. Children suffer from loneliness due to parents spending too much time on phones or laptops, which is not good for their health. People are becoming lazy day by day to use digital technology and they suffer from various diseases. Students are getting addicted to Facebook, Instagram, WhatsApp, and Reels through smartphones in such a way that attention is getting lost from their studies. So, we can say that this present study has a great need and is significant. I have tried to highlight all these aspects in my study.

V. DISCUSSION

1. **Meaning and Concept of Human Health:** Human health refers to the overall well-being and functioning of a person's physical, mental, and social status. It encompasses various aspects of a person's condition, including physical fitness, emotional well-being, cognitive abilities, and social interactions. Human health is influenced by a combination of genetic, environmental, lifestyle, and socio-economic factors. The WHO definition envisages three dimensions of health- Physical, Mental, and Social (Sukumar&Shashirekha, 2014).

   - **Physical Health:** Physical health refers to the condition of the body and its ability to function optimally. It involves aspects such as body composition, cardiovascular fitness, strength, flexibility, and the absence of diseases or physical impairments.

Maintaining good physical health involves practices such as regular exercise, a balanced diet, adequate sleep, and preventive health.

- **Mental Health:** Mental health refers to the combination of a person's emotional and psychological. Good mental health is characterized by emotional resilience, a positive self-image, the ability to manage emotions, and the absence of mental disorders. Promoting mental health involves practices like stress management, seeking support when needed, engaging in self-care, and accessing mental health services when necessary.

- **Social Health:** Social health refers to an individual's ability to form and maintain meaningful relationships, engage in social interactions, and participate in community activities. It involves having a support system, feeling a sense of belonging and experiencing positive social connections. Nurturing social health involves building and maintaining relationships, fostering a sense of community, and advocating for social equality and justice.

  It is important to note that human health is a dynamic concept and varies among individuals based on their unique characteristics, circumstances, and genetic makeup. Additionally, health is not merely the absence of disease but encompasses a state of complete physical, mental, and social well-being.

2. **The Basic Concept Of Digitalization:** The basic concept of digitalization refers to the process of converting analog information or physical objects into digital form, which can be processed, stored, and transmitted using digital technology. It involves the transformation of various aspects of our lives, including data, documents, media, processes, and services, into digital formats.

   Digitalization enables the representation of information in the form of binary code (0s and 1s), which can be easily manipulated and processed by computers and other digital devices. This conversion brings several benefits, including increased efficiency, improved accessibility, enhanced storage and retrieval capabilities, and the ability to automate tasks.

   - **Key elements of Digitalization include:**

     - ➢ **Digitization:** It involves converting analog content, such as text, images, audio and video into digital formats. For example, scanning physical documents to create digital copies or converting analog audio recordings into digital MP3 files.
     - ➢ **Connectivity:** Digitalization allows for seamless connectivity between devices and systems, enabling the transfer of digital information over networks. This connectivity facilitates communication, collaboration, and the sharing of data and resources across different platforms.
     - ➢ **Data-driven decision-making:** Digitalization generates vast amounts of data, which can be collected, analyzed, and used to make informed decisions. Organizations can leverage data analytics and artificial intelligence to gain insights, optimize processes, and drive innovation.

➢ **Automation:** Digitalization enables the automation of manual and repetitive tasks through the use of digital systems and software. This can lead to increased productivity, reduced errors, and cost savings.

➢ **Integration:** Digitalization involves integrating various digital technologies and systems into existing processes and infrastructure. This integration enables interoperability, streamlines workflows, and improves the overall efficiency of operations.

Overall, digitalization has a profound impact on society, the economy, and individual lives, revolutionizing how we work, communicate, access information, and engage with the world around us.

3. **Criteria For Good Wellbeing:** In the flow of time, the most important thing is your health. Due to a lack of health awareness, people are constantly suffering from various diseases. So we will see which conditions are necessary for our good health.

- **Less use of mobile phones**: Technology can never be left out in today's technology-dependent era. But we are a bit more addicted to our current phones because we are busy with the phone every moment for no reason. Phone addiction often makes us do various mistakes. For example, you are busy on the phone, you fall asleep without eating, or you can waste time by waking up night after night. So we need to use phones as less as possible for good health.

- **Regular health checkups:** Regular visits to the doctor, and regular health check-ups are essential for good health. As a result, minor health problems can be detected and prevented before they become major. Even if you feel physically healthy, don't forget to get a regular health check-up every year. Because health is wealth, we need to keep that wealth healthy and normal.

- **Healthy home environment:** A healthy home environment means that environment where the child gets an opportunity to grow up independently and spontaneously and is also conducive to maintaining good relations with everyone in the family. Every person's closest people are his family members. So we should move forward by maintaining a good relationship with each person in the family. Children should develop good relationships with each other through affection, love, care, spontaneity, etc. If there is strife, or discord in the family then the child will become helpless, insecure this will break him mentally. Therefore, one of the conditions or ways to stay mentally healthy is to create a healthy and normal home environment for the child.

- **Contact with Positive People:** We interact with different types of people in our society. Among them, there are some people with whom we get a lot of peace of mind. That is, we have to keep in touch with such people whose speech, conduct, and attitude are always useful for society and people and whose views and thoughts will be positive towards society. From these people, we will learn morals, values and develop a positive attitude towards people and society which will help us to stay mentally healthy.

- **Good Sleep:** We know that sleep is as important as a healthy diet and exercise. Adequate sleep is fundamental to the physical and mental well-being of every individual. Since every person is different, everyone's sleep needs are not the same as other needs. Some people fall asleep very quickly while others take time to fall asleep. But everyone needs adequate sleep for good health. For every person, staying up late is very harmful to the body. If a person wakes up at night and sleeps too much during the day, it is harmful to his health. Therefore, adequate sleep is one of the most important conditions for good mental and physical health.

- **Meditation:** Meditation is a long and far-reaching process. It brings physical well-being as well as reduces mental stress in the individual. It helps to build good relationships with every person in the society. Meditation is one of the medicines to reduce our stress. Regular meditation keeps us away from various diseases and it also keeps our mind healthy. So we all have to patiently practice meditation daily.

4. **Positive Effects Of Digitalization On Human Health:** In today's technology-dependent era, we are using various types of modern gadgets every moment. Many studies suggested that some social networking systems have a positive impact on human health. Media posts and behavior can also be very useful in identifying or predicting depressed people. In a report was discussed that digitalization helps people connect countries around the world with more advanced expertise and available treatment that can help improve our knowledge of human health. One-third of medical faculties use social media for their teaching and nearly 50% of faculty plan to use digital platforms in the near future (Tripathiet al., 2018). The contribution of modern technology in the field of health is mentioned below.

- **Health Apps:** Today, the digital revolution has resulted in the creation of hundreds of health apps. These apps allow patients to monitor their health and diseases, provide them with medical information, access their test results, and enable them to request when it's time for a checkup.

- **Improving Doctor-Patient Communication:** In the age of technology, social media helps establish better communication links between healthcare organizations and patients. Educated patients can contact doctors anytime through social media. Today's technology has given patients an opportunity to learn about other ways to contact and communicate with their doctors in case of emergencies or after-hours queries. As a result, the doctor-patient relationship becomes much sweeter.

- **Electronic Health Records:** The electronic health record is a systematic collection of electronically stored health information about patients. These health records can directly or indirectly support any other care-related activities through a variety of interfaces, including evidence-based decision support, and outcomes reporting.

- **Virtual medical appointments:** Nowadays, due to digitalization, it is possible to easily book virtual appointments with doctors in the country and abroad. Also, due to digitalization, it is possible to consult different doctors for various health-related problems and get solutions for those problems very easily.

- **Upgraded Lifestyle:** Although some technologies are very harmful to our health, most of them are designed for the greater good of mankind. Technology makes our daily life easier and timelier. Transportation, everyday household appliances, robotics, and artificial intelligence have all improved the lives of people in the 21st century.

- **Artificial Organs:** Artificial organs or we can say man-made organ is the most amazing wonder of modern technology. Bones, joints, artificial hands, artificial feet, artificial hearts, and many more are made for human health (Muhammad, 2023). It reduces the disability of people and enables them to live happily. We can never really forget the contribution of technology.

- **Technology is greatly improving patient care:** Technology has made patients much more caring, reliable, and safe these days. Doctors and nurses can now use tablets or laptops or computers to record the contents of patients' treatments and ensure that they are receiving the right treatment. Above all, we have to acknowledge the fact that thanks to digitalization in today's medical system patients can develop a greater understanding of their treatment and care.

- **Technology is making us more active:** As a result of technology, we can know the news of the country and abroad as well as be aware of new incurable diseases in a moment. In today many new electronic exercise machine have been invented which people can still be physically active at home.

- **Digital Healthcare:** Digital healthcare is such a vital area that cannot be unnoticed in a nation like India where the population increased rapidly. There are 0.7 doctors and 1.1 beds out of 1000 people (Kumar et al., 2020).So digital healthcare is a very necessary issue in our country. We should look at healthcare from two perspectives – pre-Covid and post-pandemic. As the world's outlook on healthcare in the post-Covid era is much better than it was in the past, India's outlook in that regard is also much better today. Today, various health researchers are improving the medical system. Doctors in the country and abroad have been able to discover medicines for various diseases with the help of technology.

5. **Negative Effects of Digitalization on Human Health:** Although social media has proven to be a boon to us in a technology-dependent society, it has some unexplored aspects that are affecting our psyche. In this age of the internet, everyone likes to use social media. Be it, children or old people, everyone loves to use social media. But if we talk about the harm of technology, then people of all ages are harmed. Piyus Upadhyay studies in Uttar Pradesh and report that high level of anxiety and depression are associated with internet addiction among adolescents, and it affect many domains of individual's interpersonal, social, occupational, psychological, and physical health(Mishra &Mohapatra, 2018). The harmful effects of this technology on our physical and mental health are mentioned below-

- **Depression and Anxiety:** Humans need face-to-face contact to stay mentally and physically healthy. But nowadays, most of us access social media through our smartphones or tablets to communicate or exchange ideas with others. Due to

excessive use of social media, depression and anxiety are increasing rapidly among people and this reason people are deteriorating their relationships.

- **Lack of Sleep:** Due to excessive use of social media, children and youth these days are getting less sleep, which leads to a lack of attention and physical activity, thereby deteriorating their mental health and physical health. People are not sleeping properly due to excessive busyness on social media like Whatsapp, Facebook, and Instagram. As a result, the level of depression and anxiety is increasing day by day.

- **Memory is declining:** Today's widespread use of social media can have a special effect on memory. According to experts, people who spend most of their day on social media have less memory than others. We all know that just as our body needs rest, so does our mind. During leisure time our brain completes the process of storing useful information and helps to delete unimportant information from the brain. But being busy with social media doesn't give the brain time to rest properly and this can have a bad effect on memory.

- **Cyberbullying**: Cyberbullying means cyber harassment. Cyberbullying is a combination of two words cyber and bullying. Meaning of Cyber basically refers to the internet or online. In this case, cyberbullying will focus on short messaging texts via the Internet or technologies such as online chat, online media and social media. It does not harm people physically; it damages people internally through the use of various modern devices (Guan et al., 2016).

- **Hearing Loss:** Now an inevitable part of digital life is usually using earbuds or earphones while exercising, listening to music, watching online videos, or making phone calls. In the digital age, hospitals and doctor's chambers are now crowded with treatment for hearing loss in children and teenagers. Doctors have long attributed the use of earphones or earbuds as the main cause. According to the doctor, using earphones or earbuds for a long time increases the moisture in the ear, which leads to infection.

- **High Blood Pressure:** In the age of advanced digital health information technology, teenagers are online for hours every day on their phones and laptops. Excessive use of technology increases stress, insomnia, and dizziness which increase blood circulation. Because when people are under stress, the heart rate also increases, resulting in an increase in blood pressure.

VI. CONCLUSION

In conclusion, this research paper has explored the effects of digitalization on human health, uncovering both its advantages and challenges. The digital revolution has undoubtedly transformed various aspects of healthcare, offering unprecedented opportunities for improving patient care, enhancing medical research, and increasing access to health information. The widespread adoption of digital technologies, such as electronic health records, telemedicine, wearable devices, and health apps, has facilitated remote monitoring, personalized medicine, and patient engagement, leading to improved healthcare outcomes and cost efficiency.

One of the significant benefits of digitalization in healthcare is the democratization of information. Patients now have easy access to vast amounts of health-related data, enabling them to become more informed and proactive in managing their health. Digital health tools have empowered individuals to monitor their vital signs, track their fitness levels, and gain insights into their overall well-being. Moreover, digital platforms have facilitated the dissemination of medical knowledge, allowing healthcare professionals to access the latest research, collaborate with colleagues, and provide evidence-based care.

In conclusion, the digital revolution is transforming the healthcare landscape, reshaping how we deliver and receive healthcare services. Embracing digitalization has the potential to improve patient outcomes, enhance efficiency, and drive innovation in the field of healthcare. By addressing the challenges associated with digitalization and embracing its opportunities responsibly, we can pave the way for a future where technology and human well-being go hand in hand.

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