Received: 21-01-2023 / Accepted: 14-07-2023 / Published (Online): 22-07-2023



ISSN: 2714-3236 (Online); 2714-3228 (Print); http://uniabuja.ujet.ng





Web of Change: Exploring the Internet's Influence on Education, Healthcare, Business, the Environment, and Democracy

Gaius ILIYA¹ and Bisallah I. HASHIM² ¹Department of Computer Science, University of Abuja, Abuja, Nigeria 2 Department of Computer Science, University of Abuja, Abuja, Nigeria *Corresponding author: gaiusiliya1@gmail.com; hashim.bisallah@uniabuja.edu.ng

Abstract

The Internet has profoundly transformed our lives, introducing revolutionary changes in how we learn, work, and connect with one another. This comprehensive paper delves into the impact of internet applications on key societal domains, namely education, healthcare, business, the environment, and democracy. While exploring these critical areas, it is important to note that this study primarily focuses on internet applications' influence in terms of expanding access to education and healthcare, optimizing business operations, and fostering democratic engagement. Other facets of the internet, such as entertainment, news, and communication (chatting), though significant, have not been extensively explored within the scope of this research. Through a meticulous analysis of the subject matter, this paper reveals the positive implications of internet applications, including enhanced educational and healthcare accessibility, improved business efficiency, and increased democratic participation. However, it also acknowledges the potential drawbacks, such as the spread of misinformation and privacy concerns. This research emphasizes the need for continued inquiry and dialogue to fully comprehend and harness the immense potential of internet applications in shaping our society.

Keywords

Internet; World Wide Web; ICT; Society; Technology

1.0 Introduction

Since its inception in the 1960s, the Internet has made great strides (Craig, 2022). Initialized as a means for scholars to share knowledge and collaborate on projects (Tarnoff, 2016), the Internet has since expanded into a worldwide network connecting billions of people and gadgets (Kemp, 2022).

The United States Department of Defense's Advanced Research Projects created the first version of the Internet, which was known as the ARPANET (Andrews, 2019; Featherly, 2022). ARPANET was conceived out of a need to share information over great distances without having dedicated phone connections between each computer in a network (Featherly, 2022).

As the Internet continued to evolve, new technologies and protocols were developed that made connecting and sharing information easier. One of the most significant developments was the creation of the Transmission Control Protocol/Internet Protocol (TCP/IP), which standardized the way data was sent and received over the Internet; This made it possible for different networks to communicate with each other, which laid the foundation for the global Internet we know today (Edwards, 2021).

The first web browsers were developed in the early 1990s (Lasar, 2019), a turning point for the Internet (Price, 2015). The World Wide Web (WWW) made it easy for people to access and share information through a simple point-and-click interface. This made the Internet accessible to a much wider audience and quickly became a popular way for people to communicate and share information. (Grossman, 2018).

In the twenty-first century, the Internet has had a significant impact on our lives. It has altered how we communicate, learn, and conduct business with one another (Joshi et al., 2022). The Internet has made it possible for people to communicate globally, regardless of their location. Social media sites such as Facebook, Twitter, and Instagram have facilitated communication between friends and family. Additionally, they have provided new business options for connecting with clients.

Consider how it has enabled people to interact, communicate, and access a multitude of information and resources online with ease; this has created new opportunities for businesses and made education, commerce, and healthcare more accessible and inexpensive for people around the world. As a result of these advancements, this study examines the impact of internet technology on five essential areas, including but not limited to education, healthcare, democracy, business, and the environment.

1.1 Statement of Problem

The Internet has had far-reaching implications, not just affecting how we learn, communicate, and conduct business, but also how we live our lives. Numerous aspects of society, including education, healthcare, business, the environment, and democracy, have been affected both positively and negatively by the Internet. This paper examines how the Internet has transformed various businesses and discusses the advantages and disadvantages of this new wave. This article will specifically examine how the

Internet has impacted education and access to healthcare, business and the global economy, the environment, and democracy via the dissemination of misinformation and the increase of online political polarization. The paper will conclude by discussing solutions to mitigate the Internet's negative consequences and maximize its positive effects on these crucial aspects of our society.

1.2 Aim and Objectives

This paper explores the Internet's impact on various aspects of society, including education, healthcare, business, the environment, and democracy. Overall, the critical objectives of the paper include:

- Look into the ways in which the Internet has altered the delivery and absorption of education, including the rise of online learning platforms and the possibility of expanded access to educational materials.
- ii. Assess how the Internet has changed healthcare, particularly the expansion of telemedicine and the possibility of better patient outcomes provided by digital resources.
- iii. Look at how the Internet has altered the business landscape and the possibilities it presents for boosting production and efficiency.
- iv. Discuss how the Internet has an impact on the environment, including the potential for enhanced sustainability through the use of digital tools as well as the possibility for increased awareness and engagement in environmental concerns.
- v. Study how the Internet affects democracies, considering how it can affect things like citizen engagement and the availability of information and opportunities to get involved in politics.

1.3 Literature Review

The Internet has revolutionized the way we live and interact with one another, and its impact on our society has been profound. From education and healthcare to business and the environment, internet applications have transformed how we access information, communicate, and conduct our daily lives (Shklovski et al., 2006).

Internet applications have created new options for learning and collaboration in education (Aldowah et al., 2017). The Internet has made education more accessible and flexible than ever before through online courses,

virtual classrooms, massive open online courses (MOOCs), and digital textbooks (Huer, 2018). This is a legitimate point because it has enabled students to collaborate with and learn from peers throughout the globe, thereby encouraging a more globalized educational experience (Van der Pol, 2008).

Internet applications in the healthcare industry have enabled patients to access medical information and communicate with their healthcare providers remotely (Craig et al., 2005). This has increased the accessibility and convenience of healthcare for people, particularly those who reside in remote or underdeveloped areas (Haleem et al., 2021). This fine art of technology has also enabled medical personnel to communicate information more efficiently and collaborate on patient care, resulting in better patient outcomes (Hillestad et al., 2005; Kuhn et al., 2015; Strong et al., 2014; Walker et al., 2005).

As previously said, Internet technology has had a significant impact on a variety of businesses. Businesses may now access a worldwide audience because of online marketplaces like Amazon and Alibaba (Morisset, 2020). Businesses have been able to automate various procedures, boosting efficiency and production (Shaqiri, 2015). Furthermore, the Internet allows organizations to do market research, target specific audiences, and analyze data, resulting in more successful marketing and advertising campaigns (Yannopoulos, 2011).

Another area where the Internet has had a significant impact in the twenty-first century is the environment. Individuals and organizations may now monitor and track environmental issues such as air and water quality in real time using the Internet (Doni et al., 2018). It has enabled individuals and organizations to interact and exchange knowledge about environmental issues, resulting in more effective and efficient solutions (Sayed et al., 2019). As a result, people and organizations may now effectively raise awareness about environmental issues such as climate change, resulting in increased public engagement and support for environmental projects (Mavrodieva et al., 2019).

The Internet has also had a significant impact on the field of democracy. Individuals and organizations can now obtain information about political issues and politicians through the Internet, resulting in more informed and involved citizenry (Saebo et al., 2008). It has also enabled individuals and organizations to organize and mobilize around political concerns, resulting in increased civic participation (VanFossen, 2008). Furthermore, the Internet is now regarded as a crucial instrument for promoting accountability and openness in governance, albeit whether it fulfills these objectives is debatable (Pina & Royo, 2010; Wong & Welch, 2004).

It should be noted that the influence of internet applications is only partially good. Over-reliance on technology has been shown to reduce face-to-face communication, resulting in social isolation (Lengacher, 2015; Stockwell et al., 2021). Furthermore, the Internet has resulted in increasing surveillance and privacy and security issues, as well as the propagation of misinformation and fake news (Quach et al., 2022; Di Domenico, 2021). Today's Internet applications have also contributed to the emergence of the "digital divide," in which certain individuals and communities are left behind in terms of access to technology and its accompanying benefits (Ramsetty & Adams, 2020).

Nonetheless, as society continues to rely on internet applications in their daily lives, it will be critical to understand the ramifications of new technologies and work to ensure that they are used for the development of society (Diomidous et al., 2016). This entails figuring out how to mitigate the Internet's negative consequences while also guaranteeing that everyone has access to its benefits (Kearns & Whitley, 2019).

To accomplish this, it is critical to invest in research and development, identify ways to improve Internet security, and encourage digital literacy (Yoo & Srinivasan, 2017; Hariati, 2021; Trnka et al., 2022). Policies and laws must be put in place to preserve data privacy and security while also ensuring that everyone has access to the internet. It is critical to promote digital literacy in order to ensure that everyone can utilize online applications securely and ethically (Santos & Serpa, 2017).

2.0 Materials and Methods

This paper is based on theoretical research that investigates the effects of internet technologies on contemporary society. The research is based on a review of the relevant literature, which entails collecting and analyzing secondary data from a variety of international journals, reports, and publications. The sources were selected with care to ensure their credibility and relevance to the research objectives. Using a qualitative method, the data were analyzed by systematically reading the relevant literature to find major themes and trends. To ensure a full overview of the topic's literature, the literature review was undertaken utilizing a variety of research methodologies and procedures, including critical reading and note-taking. The outcomes of the investigation are presented succinctly and backed by pertinent ideas and concepts. Also mentioned are the limits of the study and the implications of the findings for future research.

3.0 Results and Discussion

3.1 Various Applications of Internet Technology in Modern Society

These are divided into five subheadings as follows:

A. Education Impacts

The Internet has had a major impact on many facets of contemporary society, including education. With the introduction of the Internet, access to information and resources has become more convenient and readily available. This has led to considerable changes in the delivery and reception of education, as well as how students learn and interact with course material. In this section, we will examine the numerous educational applications of the Internet, including online learning, blended learning, and classroom technology integration. Examples of advantageous applications include:

- i. *Online Learning Platforms:* The Internet has enabled the invention and widespread usage of online learning platforms, such as MOOCs (Massive Open Online Courses), which enable anybody with an internet connection to access educational information from any location
- Self-Paced Learning: Online learning platforms and educational materials allow students to learn at their own pace, which can be particularly advantageous for learners who require extra time to master certain concepts.
- iii. *Flexibility:* The Internet has made it possible for students to continue their education regardless of their location or schedule, which can be especially advantageous for those who cannot attend conventional brick-and-mortar institutions.
- iv. *Collaborative Learning:* Online learning environments can enhance collaborative learning by allowing students to share knowledge and cooperate on projects and tasks.
- v. Online Assessment and Feedback: The Internet has made it feasible to offer and receive online assessments and comments on student work, which can assist teachers in identifying students who want further assistance.

- vi. *Professional Development:* The Internet has given instructors access to professional development opportunities, such as online courses and webinars, which can help them keep current in their fields and enhance their teaching abilities.
- vii. **Blended Learning:** The Internet has enabled teachers to employ a blended learning method, mixing traditional classroom instruction with online study.

B. Healthcare Impacts

The use of the Internet in healthcare, sometimes known as "e-health," has altered the delivery, management, and reception of healthcare. In addition, it has created new potential for innovation and collaboration in healthcare delivery and research. In this section, we shall investigate the numerous Internet applications in healthcare that result from its utilization. The following are examples of some:

- Telemedicine: The Internet has enabled the remote delivery of healthcare services via telemedicine, allowing patients to consult with healthcare providers via video conferencing, phone calls, or messaging (Haleem et al., 2021).
- ii. *Electronic Health Records:* The Internet has enabled healthcare practitioners to electronically store and access patient health information, so enhancing the continuity and quality of service.
- iii. *Online Appointment Scheduling:* The Internet has made it possible for patients to book appointments with healthcare practitioners online, hence enhancing convenience and decreasing wait times (Zhao et al., 2017).
- iv. *Remote Monitoring:* The Internet has enabled remote patient monitoring using digital tools such as wearable gadgets and mobile applications, which can improve patient outcomes and save healthcare expenditures
- v. *Tele-Rehabilitation:* Telerehabilitation through the Internet has made it possible for patients to get physical and occupational treatment remotely, which can enhance access to rehabilitation services and save healthcare expenditures (Buabbas et al., 2022).

- vi. *Online Health Communities:* The Internet has enabled patients to connect and support one another via online health communities, which can enhance patient outcomes by offering emotional support and access to information and services (Wu, 2018).
- vii. *Medical Research:* The Internet has facilitated healthcare workers' access to the most recent medical research and clinical guidelines, allowing them to make more informed judgments regarding patient treatment (Bhatia et al., 2018).
- viii. *Digital Tools for Diagnosis:* The Internet has enabled healthcare providers to use digital tools such as artificial intelligence and machine learning to aid in disease and condition diagnosis, which can improve patient outcomes and decrease healthcare expenditures (Kumar et al., 2022).

C. Business Impacts

The Internet has revolutionized how businesses function, creating an abundance of growth and expansion options. Businesses may now reach a worldwide audience, streamline operations, and enhance customer service with the development of online platforms and digital technologies. In this section, we will examine the many business consequences of the Internet, such as e-commerce, digital marketing, and online communication. Among the positive effects are:

- E-Commerce: The Internet has enabled businesses to sell their products and services online through e-commerce platforms, which has increased market reach and made it easier for consumers to purchase goods and services (Bloomenthal, 2022).
- ii. Digital Marketing: The Internet has made it possible for firms to reach their target audience through digital marketing channels such as social media, email, and search engines, which can be more cost-effective and targeted than traditional marketing techniques (Barone et al., 2022).
- iii. *Online Collaboration:* The Internet has made it possible for businesses to communicate remotely with partners, suppliers, and customers through online technologies such as video conferencing and project management software, which can increase productivity and efficiency (Kagan et al., 2022; Sogbesan, 2022).

- iv. *Remote Working:* The Internet has enabled businesses to establish virtual offices and remote work, which can increase flexibility, reduce costs, and make it easier to hire the best people regardless of location (Kenton et al., 2022).
- Business Intelligence: The Internet has enabled businesses to collect and analyze huge quantities of data, which can be used to make more informed business decisions and improve operations (Freedman, 2022).
- vi. *Supply Chain:* The Internet has enabled businesses to better manage their supply chain with tools such as enterprise resource planning (ERP) software, which can boost efficiency and reduce costs (McCue, 2022).
- vii. *Online Customer Service:* The Internet has made it possible for businesses to provide customer service through online channels such as chatbots, email, and social media, which can enhance the customer experience and decrease costs (Smith, 2022).
- viii. *Online Marketplaces:* The Internet has enabled businesses to sell their goods and services through online marketplaces like Amazon and Alibaba, which can increase the visibility and reach of small firms (Morisset, 2020).

D. Environmental Impacts

As the Internet continues to grow and evolve, it is increasingly being used as a tool to monitor and protect the natural world. In this section, we will explore the various ways the Internet is applied to environmental issues, and they include:

- i. *Online Activism:* The Internet has enabled individuals and groups to mobilize and organize online campaigns to raise awareness and promote sustainability, including petitions and social media campaigns.
- ii. Sharing Of Information And Resources: The Internet has enabled individuals and organizations to share knowledge and resources on sustainability, such as best practices, research, and data, which can assist others in making more sustainable decisions and supporting environmental projects (Xiao et al., 2022).

- iii. Remote Monitoring and Control: Utilizing intelligent gadgets and the Internet of Things, the Internet has enabled individuals and businesses to remotely monitor and control their energy consumption and emissions.
- iv. Virtual Meetings and Conferences: The Internet has made it possible for individuals and organisations to hold virtual meetings and conferences, which can reduce the need for travel and associated carbon emissions.
- v. *Online Marketplaces for Sustainable Products:* The Internet has enabled users to purchase sustainable products, such as eco-friendly apparel, through online marketplaces, which can encourage the establishment of sustainable enterprises (Emmert, 2021).

E. Democracy Impacts

Internet usage in politics and democracy is a field that is fast expanding, and its implications are still being explored and comprehended. This section will examine the different applications of the Internet on democracy, including its impact on voter participation and political campaigns, as well as the potential for online platforms to encourage increased civic involvement and political discourse. Consequently, some of the Internet's effects on democracy include:

- i. *Increased Citizen Engagement:* Through online platforms such as social media, the Internet has made it feasible for citizens to participate in democratic processes more efficiently, which can boost citizen engagement and participation in democratic processes (Milakovich, 2010).
- ii. Increased Access to Information: The Internet has allowed citizens to access a wide range of information about political issues, which can help them make more informed decisions and participate more effectively in democratic processes.
- iii. *Online Voting*: The Internet has enabled certain countries' inhabitants to vote online, hence increasing voter turnout and making it easier for citizens to participate in elections (McCormack, 2016).

- iv. *Online Political Advertising:* The Internet has made it feasible for political campaigns to promote online, which can be more targeted and cost-effective than traditional means of advertising (Kissane, 2015).
- v. *Crowdsourcing:* The Internet has made it possible for citizens to participate in government via crowdsourcing, which can assist discover and prioritize political issues (Ihlow, 2018).

3.2 Some Identified Challenges with the Internet's Impact on Modern Society

The Internet has revolutionized our living, working, and communication styles. However, the widespread adoption of this technology has resulted in a variety of problems in numerous parts of society. In this section, we will address some of the issues posed by the Internet's effects on education, healthcare, democracy, the environment, and business in contemporary society. We will investigate how the Internet has impacted these fields and the potential remedies for these alterations.

A. Education-Related Issues with Proposed Solutions

Several issues linked with the usage of the Internet in education delivery include the following:

- i. Limited Access to Technology: One of the greatest difficulties in education is ensuring that all students have access to the technology necessary to participate in online learning. This can be a big obstacle for students from low-income or rural homes who require access to highspeed Internet or dependable computers. Providing students with technological loans, providing free internet access in public locations, and collaborating with local companies to provide free wifi are all potential solutions to this problem.
- ii. Digital Divide: Another obstacle is the digital divide between students with and without access to technology. This disparity can contribute to inequity in education, since students who require access to technology may be unable to continue their study. Creating digital literacy programs for students without access to technology and training teachers on how to use technology in the classroom are potential solutions to this problem.

- iii. Limited Interaction: Online learning can be isolating since students may have less possibilities for interaction and collaboration than they would in a regular classroom. Using video conferencing capabilities to promote real-time talks and developing virtual study groups where students may connect and work on projects are potential solutions to this problem.
- iv. Limited Access to Specialized Resources: Online education may restrict students' access to specialized resources, such as laboratory equipment and art supplies. Giving students virtual labs or developing online simulations and providing teachers with training on how to utilize these resources successfully are potential solutions to this problem.
- v. Limited Opportunities for Hands-On Learning: Online education may not offer more opportunities for hands-on learning than traditional classrooms. Incorporating virtual and augmented reality technology and training teachers to use these technologies successfully are solutions to this problem.

B. Healthcare-Related Issues with Proposed Solutions

A few problems associated with internet use in the healthcare industry include the following:

- ix. Data Privacy and Security: The use of internet-based technologies in healthcare has resulted in a growth in the quantity of personal and sensitive patient data saved and transmitted electronically. This can result in data breaches, identity theft, and other invasions of privacy. Implementing stringent data privacy and security regulations, encrypting sensitive data, and frequently monitoring and auditing data access are all potential solutions.
- x. Interoperability Issues: Different healthcare organizations and providers may use different electronic health record systems, resulting in interoperability concerns when sharing patient information. Implementing standardised data formats and protocols for data sharing and utilizing data integration tools to simplify data exchange between systems are examples of solutions.
- xi. Access to Care: Internet-based technologies have the potential to expand access to healthcare services, especially for rural and underserved

communities. However, not everyone has equal access to the Internet and technology, which can lead to inequities in access to care. To reach patients in remote places, solutions include giving access to the internet and technological resources and creating telehealth and remote monitoring programs.

- xii. Quality of Care: Utilizing internet-based technology in healthcare might raise questions regarding the quality of care provided remotely or via digital platforms. Implementing quality assurance and patient satisfaction measures for telehealth and digital health services, as well as ensuring that practitioners are trained and certified to give care via these platforms, are examples of solutions.
- xiii. *Technical Issues:* Internet-based technology can be difficult to navigate, resulting in technical issues for patients and healthcare practitioners. Implementing user-friendly interfaces and navigation tools for digital health platforms, as well as offering technical assistance and training for patients and clinicians, are examples of solutions.
- xiv. Legal And Regulatory Difficulties: The use of internet-based technology in healthcare presents legal and regulatory difficulties, such as data privacy and security, telemedicine licensing, and reimbursement. Among the solutions for overcoming these obstacles include keeping abreast of applicable rules and regulations and collaborating with legal and regulatory agencies.

C. Business-Related Issues with Proposed Solutions

A few problems associated with internet use in business include the following:

- ix. *Cybersecurity Threats:* The potential of cyberattacks is one of the greatest challenges posed by businesses' growing reliance on internet-based technologies. These assaults might originate from malware, ransomware, phishing, and other hacking techniques. Implementing effective security measures, such as firewalls, antivirus software, and intrusion detection systems, and giving employee training on spotting and avoiding these types of threats are solutions to this difficulty.
- x. Lack of Digital Literacy: As internet-based technologies evolve, many employees may need assistance keeping up with new software, tools,

- and platforms. Providing continual training and development opportunities to ensure that personnel have the essential skills and expertise to utilize new technologies effectively is one solution to this difficulty.
- xi. *Increased Competition:* As a rising number of organizations use internet-based technology, the competition is intensifying. Staying abreast of industry trends and consistently inventing to stay ahead of the curve are solutions to this difficulty.
- xii. Difficulty in Managing Remote Teams: With the development of remote work, businesses require assistance in managing teams that are geographically dispersed. To keep remote teams connected and productive, it is necessary to adopt effective communication and collaboration solutions, such as video conferencing and project management software.
- xiii. Difficulty in Maintaining Customer Relationships: With the proliferation of internet-based technology, businesses may require assistance in retaining personal ties with clients. Implementing customer relationship management (CRM) software and routinely connecting with customers via social media and other online channels are solutions to this difficulty.
- xiv. *Difficulty in Managing Big Data:* As businesses continue to generate and gather massive volumes of data, it can be challenging to efficiently manage, analyze, and utilize this data. Implementing data management and analytics systems to properly process and analyze enormous amounts of data is one solution to this difficulty.

D. Environment-Related Issues with Solutions

A few problems associated with internet use in our environment include the following:

- vi. Power Consumption and Sustainability: Internet-connected environmental monitoring systems necessitate electricity to function, which can have a substantial influence on the environment. Among the solutions are the use of energy-efficient and solar-powered gadgets and the development of systems with minimal energy usage.
- vii. *Limited Accessibility:* Internet-based environmental information may be inaccessible to those without internet access, such as those in low-

income regions or in developing nations. Offering access to internetenabled devices, providing training on accessing and utilizing online resources, and developing offline copies of online materials are all examples of solutions.

- viii. Lack of Transparency: Absence of Transparency Internet-based environmental monitoring systems may require greater transparency in data collection, analysis, and application. Transparency in data collecting and analysis methodologies, public participation in environmental monitoring, and the development of data visualization tools are among the solutions.
- ix. Limited Data Quality: Internet-connected environmental monitoring systems may generate vast quantities of data, however the quality of this data may require improvement. Solutions include adopting quality control methods, developing error-detection algorithms, and promoting collaboration among environmental organizations in order to improve the quality of data.
- x. Dependence on Technology: Internet-based environmental monitoring systems may become technologically dependent, rendering them susceptible to system outages, software faults, and other problems. Developing backup plans, creating system redundancy, and investing in disaster recovery plans are all viable options.
- xi. *Human Error:* Internet-based environmental monitoring systems may be susceptible to human mistakes, such as faulty data entry or poor system usage. Solutions include giving system training, enforcing stringent protocols, and leveraging automated data entry and analysis tools

E. Democracy-Related Issues with Solutions

Among the challenges related with the usage of the Internet in world democracies are the following:

vi. *Cyber-Attacks:* The possibility of cyber-attacks on voting systems, political campaigns, and government websites is one of the greatest obstacles facing democracy in the internet age. Increased investment in cyber security measures, more secure voting technologies, and

improved cyber security training for government officials and campaign employees are potential solutions to this issue.

- vii. Online Harassment and Hate Speech: The Internet has also made it easier for people to participate in online abuse and hate speech, which can create a hostile climate for marginalized groups and hinder their participation in democracy. This problem can be solved by enforcing tighter laws against hate speech and online harassment, improving the regulation of online platforms, and teaching individuals to recognize and respond to hate speech.
- viii. *Political Polarisation:* The Internet has made it simpler for people to identify and interact with those who share their views, which can lead to increased political polarisation and extremism. Campaigns promoting media literacy, fact-checking websites, and initiatives to foster civil conversation and compromise are methods for addressing this issue.
- ix. Foreign Interference: The Internet has also made it simpler for foreign governments and organizations to meddle in democratic processes, such as through disinformation campaigns and cyberattacks. Increased cooperation between governments, improved surveillance of online activity, and stronger controls on foreign political expenditures are potential solutions to this issue.
- x. Voter Suppression: The Internet has also made it easier for bad actors to engage in voter suppression, including through disinformation campaigns, hacking, and voter purges. This issue can be resolved by strengthening voter protection legislation, enhancing voter education, and investing more in cyber security.

4.0 Research Limitations and Suggestions for Future work

While this study offers valuable insights into the impact of the Internet on education, healthcare, business, the environment, and democracy, it is important to acknowledge certain limitations. Firstly, the study relied solely on secondary data obtained through periodical literature reviews and other sources, which may have limited the depth and intricacy of understanding the multifaceted influence of the Internet on society. Furthermore, the study did

not focus on specific geographical regions, potentially constraining the generalizability of the findings.

Notwithstanding these limitations, the findings of this study provide significant implications regarding the Internet's effects on various domains. It highlights the transformative role of the Internet in enabling remote consultations and telemedicine, facilitating online commerce and remote work, and promoting environmental sustainability and the democratization of information.

To further advance our understanding, it is imperative to conduct more comprehensive and empirical research. Future studies should employ robust methodologies, incorporating primary data collection techniques to provide more concrete facts and figures. Moreover, it is essential to extend the research scope to include other dimensions of the Internet's impact, such as entertainment, news, and communication (chatting), which have not been extensively explored within this study.

In addition, future research endeavors should explore the influence of the Internet on different demographic groups and geographic locations to better comprehend its diverse societal implications. The long-term effects of the Internet on society and the potential for unforeseen consequences should also be subjects of investigation. Validating and expanding upon the findings of this study through rigorous primary research will contribute to a more comprehensive understanding of the Internet's multifaceted impact on our world.

5.0 Conclusion

To conclude, internet technology has had a wide-ranging impact on modern civilization. The Internet has made education more accessible, interactive, and dynamic. It has enhanced patient care and information access in healthcare. It has improved citizen engagement and participation in government in a democracy. It has transformed commerce and created new chances for growth and innovation in Business. Furthermore, it has resulted in more sustainable and efficient resource utilization in the environment. However, as we have seen, there are also significant challenges and potential negative consequences associated with the impact of internet technology on modern society. These include issues related to privacy, security, and the digital divide. To address these challenges and ensure that internet technology continues to benefit society, we must invest in research and development, promote digital literacy and inclusion, and develop policies and regulations

protecting citizens' rights and interests. Ultimately, the impact of internet technology on modern society will be shaped by the choices we make and the actions we take. By being thoughtful, proactive, and responsible, we can harness the power of the Internet to create a better future for all.

6.0 References

- Aldowah, H., Rehman, S.U., Ghazal, S. (2017). Internet of things in higher education: a study on future learning. Proceedings of
 - the International Conference on Computer Science and Computational Mathematics, Langkawi, Malaysia, vol. 892.
- Andrews, E. (2019). Who Invented the Internet? HISTORY. Retrieved January 15, 2023, from https://www.history.com/news/who-invented-the-internet
- Barone, A., James M., Perez, Y. (2022). Digital Marketing Overview: Types, Challenges, and Required Skills. Investopedia. Retrieved
 - January 17, 2023, from https://www.investopedia.com/terms/d/digital-marketing.asp
- Bhatia, S., Patnaik, L., Pattanaik, S., Sahu, T. (2018). Internet use for patient care and health research: a cross-sectional study among physicians in a teaching hospital of Eastern India. J Fam Med Prim Care, 7, 993.
- Bloomenthal, A. (2022). Ecommerce Defined: Types, History, and Examples. Investopedia. Retrieved January 17, 2023, from https://www.investopedia.com/terms/e/ecommerce.asp
- Buabbas, A. J., Albahrouh, S. E., Alrowayeh, H. N. (2022). Telerehabilitation during the COVID-19 pandemic: patients and physical therapists' experiences. Medical principles and practice: international journal of the Kuwait university. Med Princ Pract, 31(2), 156-164.
- Craig, J., Patterson, V. (2005). Introduction to the practice of telemedicine. Journal of Telemedicine and Telecare, 11(1), 3–9.
- Craig, W. (2022). The history of the Internet in a nutshell. WebFX. Retrieved from https://www.webfx.com/blog/web-design/the-history-of-the-internet-in-a-nutshell/

- Di Domenico, G., Sit, J., Ishizaka, A., Nunan, D. (2021). Fake news, social media and marketing: A systematic review. Journal of Business Research, 124, 329-341. https://doi.org/10.1016/j.jbusres.2021.01.004
- Diomidous, M., Chardalias, K., Magita, A., Koutonias, P., Panagiotopoulou, P., Mantas, J. (2016). Social and psychological effects of the internet use. Acta Informatica Medica, 24(1), 66-68. https://doi.org/10.5455/aim.2016.24.66-68
- Doni, A., Murthy, C., Kurian, M. (2018). Survey on multi-sensor-based air and water quality monitoring using IoT. Indian Journal of Scientific Research, 17(2), 147-153.
- Edwards, B. (2021). The Foundation of the Internet: TCP/IP Turns 40. How-To Geek. Retrieved January 15, 2023, from https://www.howtogeek.com/751880/the-foundation-of-the-internet-tcpip-turns-40/
- Emmert, A. (2021). The rise of the eco-friendly consumer. Strategy+Business. Retrieved January 17, 2023, from https://www.strategy-business.com/article/The-rise-of-the-eco-friendly-consumer
- Featherly, K. (2022). ARPANET | Definition, Map, Cold War, First Message, & History. Encyclopedia Britannica. Retrieved January 15, 2023, from https://www.britannica.com/topic/ARPANET
- Freedman, M. (2022). Businesses Are Collecting Data. How Are They Using It?

 Business News Daily. Retrieved January 17, 2023, from https://www.businessnewsdaily.com/10625-businesses-collecting data.html
- Grossman, D. (2018). On This Day 25 Years Ago, the Web Became Public Domain.

 Popular Mechanics. Retrieved January 15, 2023, from https://www.popularmechanics.com/culture/web/a20104417/www-public-domain/
- Haleem, A., Javaid, M., Singh, R., Suman, R. (2021). Telemedicine for healthcare: Capabilities, features, barriers, and applications.\

 Sensors
 International, 2, 100117. https://doi.org/10.3390/s20100117

- Hariati, P. (2021). Implementation of digital literacy toward pandemic situation. In International Virtual Conference on Democracy and Education (pp. 2920-2926). https://www.bircupublishing.com/wp-content/uploads/2021/05/International-Proceeding.pdf#page=57
- Hillestad, R., Bigelow, J., Bower, A., Girosi, F., Meili, R., Scoville, R., Taylor, R. (2005). Can electronic medical record systems transform health care? Potential health benefits, savings, and costs. Health Affairs, 24(5), 1103–17. https://doi.org/10.1377/hlthaff.24.5.1103
- Huer, J. B. (2018). Higher Education Technology Leadership: A Delphi Study. A Doctorate thesis submitted to Lamar University-
- Ihlow, M. (2018). Crowdsourcing is a step forward in citizen participation. Democracy International e.V. Retrieved January 17, 2023, from https://www.democracy-international.org/crowdsourcing-step-forward-citizen-participation
- Joshi, R., Pavithra, N., Singh, C. K. (2022). Internet an Integral Part of Human Life in 21st Century: A Review. Current Journal of Applied Science and Technology, 41(36), 12-18. https://doi.org/10.9734/cjast/2022/v41i363963
- Kagan, J., Mansa, J., Li, T. (2022). Video Conferencing: How It Works, How to Use It, Top Platforms. Investopedia. Retrieved January 17, 2023, from https://www.investopedia.com/terms/v/video-conferencing.asp
- Kearns, A., Whitley, E. (2019). Associations of internet access with social integration, wellbeing and physical activity among adults
- in deprived communities: evidence from a household survey. BMC Public Health, 19(1), 860. https://doi.org/10.1186/s12889-019-7199-x
- Kemp, S. (2022). Digital 2022: Global Overview Report. DataReportal Global Digital Insights. Retrieved January 15, 2023, from
 - https://datareportal.com/reports/digital-2022-global-overview-report
- Kenton, W., Kindness, D., Munichiello, K. (2022). Virtual Office: Definition, Costs, Benefits, Drawbacks. Investopedia. Retrieved

- January 17, 2023, from https://www.investopedia.com/terms/v/virtual-office.asp
- Kissane, D. (2015). Three Ways The Internet Has Changed Political Campaigns | DOZ. DOZ. Retrieved January 17, 2023, from
- https://www.doz.com/marketing-resources/three-ways-internet-changed-political-campaigns
- Kuhn, T., Basch, P., Barr, M., Yackel, T., Adler, M., Brahan, R. (2015). Clinical documentation in the 21st century: executive summary of a policy position paper from the American College of Physicians. Annals of Internal Medicine, 162(4), 301–3. https://doi.org/10.7326/M14-1723
- Kumar, Y., Koul, A., Singla, R., Ijaz, M. F. (2022). Artificial intelligence in disease diagnosis: A systematic literature review, synthesizing framework and future research agenda. J. Ambient Intell. Humaniz. Comput., 1-28. https://doi.org/10.1007/s12652-021-02134-w
- Lasar, M. (2019). Before Netscape: The forgotten Web browsers of the early 1990s.

 Ars Technica. Retrieved January 15, 2023, from https://arstechnica.com/information-technology/2019/05/beforenetscape-forgotten-web-browsers-of-the-early-1990s/
- Lengacher, L. (2015). Mobile technology: Its effect on face-to-face communication and interpersonal interaction. Undergraduate Research Journal for the Human Sciences, 14. Retrieved from http://www.kon.org/urc/v14/lengacher.html
- Mavrodieva, A. V., Rachman, O. K., Harahap, V. B., Shaw, R. (2019). Role of social media as a soft power tool in raising public awareness and engagement in addressing climate change. Climate, 7(10), 122.
- McCormack, C. B. (2016). Electronic Voting around the World. In Democracy Rebooted: The Future of Technology in Elections (pp. 9–14). Atlantic Council. http://www.jstor.org/stable/resrep03645.9
- McCue, I. (2022). What Is ERP (Enterprise Resource Planning)? Oracle NetSuite.

- Retrieved January 17, 2023, from https://www.netsuite.com/portal/resource/articles/erp/what-is erp.shtml
- Milakovich, M. E. (2010). The Internet and increased citizen participation in government. JeDEM eJournal of eDemocracy and Open Government, 2(1), 1–9.doi:10.29379/jedem.v2i1.22
- Moriset, B. (2020). e-Business and e-Commerce. In International Encyclopedia of Human Geography (pp. 1-10). Oxford University Press.
- Pina, V., Torres, L., & Royo, S. (2010). Is e-government leading to more accountable and transparent local governments? An overall view. Financial Accountability & Management, 26(1), 3-20.
- Price, S. (2015). Turning Point in History: The World Wide Web. prezi.com. Retrieved January 15, 2023, from https://prezi.com/lqsmrp2pot0j/turning-point-in-history-the-world-wide-web/
- Quach, S., Park Thaichon, K. D., Weaven, S., Palmatier, R. W. (2022). Digital technologies: Tensions in privacy and data. Journal of the Academy of Marketing Science, 1-25. https://doi.org/10.1007/s11747-022-00845-y
- Ramsetty, A., Adams, C. (2020). Impact of the digital divide in the age of COVID-19. Journal of the American Medical Informatics Association, 27(4), ocaa078. https://doi.org/10.1093/jamia/ocaa078
- Sæbø, Ø., Rose, J., Flak, L. S. (2008). The shape of eParticipation: Characterising an emerging research area. Government Information Quarterly, 25(3), 400–428.
- Santos, A. I., Serpa, S. (2017). The importance of promoting digital literacy in higher education. International Journal of Social Science Studies, 5(6), 90. https://doi.org/10.11648/j.ss.20170506.12
- Sayed, E., Ahmed, A., Yousef, M. E. (2019). Internet of things in Smart Environment: Concept, Applications, Challenges, and Future Directions. World Scientific News, 134, 1-51.

- Shaqiri, A. B. (2015). Impact of information technology and Internet in businesses. Academic Journal of Business, Administration, Law and Social Sciences, 1(1), 73-79.
- Shklovski, I., Kiesler, S., Kraut, R. (2006). The Internet and social interaction: A meta-analysis and critique of studies 1995–2003. In
- R. Kraut, M. Brynin, & S. Kiesler (Eds.), Computers, phones, and the Internet: Domesticating information technology (pp. 251–264). New York: Oxford University Press.
- Smith, M. (2022). 13 Best Practices for Improving Online Customer Service Help Scout. 13 Best Practices for Improving Online Customer Service. Retrieved January 17, 2023, from https://www.helpscout.com/blog/improve-online-customer-service/
- Sogbesan, T. (2022). The 5 Best Project Management Software for Your Business.

 MUO. Retrieved January 17, 2023, from https://www.makeuseof.com/best-project-management-software-for-business/
- Stockwell, S., Stubbs, B., Jackson, S. E., Fisher, A., Yang, L., Smith, L. (2021). Internet use, social isolation and loneliness in older adults. Ageing & Society. Available online doi:10.10
- Strong, D. M., Volkoff, O., Johnson, S. A., Pelletier, L. R., Tulu, B., Bar-On, I. (2014). A theory of organization-EHR affordance actualisation. Journal of Association for Information Systems, 15(2), 53–85
- Tarnoff, B. (2016). How the Internet was invented. The Guardian. Retrieved from
- http://www.theguardian.com/technology/2016/jul/15/how-the-internet-was-invented-1976-arpa-kahn-cerf
- Trnka, M., Abdelfattah, A. S., Shrestha, A., Coffey, M., Cerny, T. (2022). Systematic review of authentication and authorization advancements for the Internet of Things. Sensors, 22(4), 1361. https://doi.org/10.3390/s22041361

- Van der Pol, J., Van den Berg, B. A. M., Admiraal, W. F., Simons, P. R. J. (2008). The nature, reception, and use of online peer feedback in higher education. Computers & Education, 51(4), 1804–17. https://doi.org/10.1016/j.compedu.2008.06.001
- VanFossen, P. J., Berson, M. J. (2008). The electronic republic? The impact of technology on educating for citizenship. West Lafayette, IN: Purdue University Press.
- Walker, J., Pan, E., Johnston, D., Adler-Milstein, J., Bates, D. W., Middleton, B. (2005). The value of health care information exchange and interoperability. Health Affairs (Millwood), 24(Suppl Web Exclusives), W5–W18. https://doi.org/10.1377/hlthaff.w5.10
- Wong, W., Welch, E. (2004). Does E-government promote accountability? A comparative analysis of website openness and government accountability. Governance, 17(2), 275-297.
- Wu, B. (2018). Patient continued use of online health care communities: Web mining of patient-doctor communication. J. Med. Int. Res., 20, e126. https://doi.org/10.2196/jmir.8234
- Xiao Y, Liu X, Ren T (2022) Internet use and pro-environmental behavior: Evidence from China. PLoS ONE 17(1): e0262644. doi:10.1371/journal.pone.026
- Yannopoulos, P. (2011). Impact of the Internet on Marketing Strategy Formulation. International Journal of Business and Social Science, 2(18), 1-7. Available at http://www.ijbssnet.com/journals/Vol_2_No_18_October_2011/1.pdf
- Yoo, S., Srinivasan, S. (2017). Evidence-based research on internet connectivity:

 A prerequisite for effective policymaking. IEEE Internet Initiative.

 Retrieved from https://internetinitiative.ieee.org/newsletter/march-2017/evidence-based-research-on-internet-connectivity-a-prerequisite-for-effective-policymaking
- Zhao, P., Yoo, I., Lavoie, J., Lavoie, J., Simoes, E. (2017). Web-Based Medical Appointment Systems: A Systematic Review. J. Med. Internet Res., 19(4), 1-17. https://doi.org/10.2196/jmir.8234