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DIGITAL TECHNOLOGIES AND THEIR IMPACT ON SOCIETAL DEVELOPMENT

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Abstract:
Throughout human history, technical innovation has been a primary driver of significant social, economic, political, and cultural transformations. These transformations have become even more visible in the internet era. This article deals with the issues based on analyzing the impact of digital technologies—particularly computers and the Internet—on society. It also investigates the role of digital instruments in globalization, which has a huge impact on societies around the world. The study demonstrates the revolutionary potential of digital advances in transforming communication, business, governance, and daily life around the world.

Keywords: Technology, digital innovation, human society, economy, information, globalization, automation.

Introduction

Throughout history, technology has played an important role in meeting societal requirements through the application of science and mathematics. From ancient achievements like the compass and calendar to recent breakthroughs like artificial intelligence and blockchain, technology both reflects and develops human civilization. In the information age, digital technology have permeated every part of life, linking people, driving economic activity, and changing how we communicate and interact.

As previously said, technology is defined as any application established or built using applied science or mathematics to tackle a societal problem. These could be agricultural technology from ancient civilizations or computational technologies developed more recently. Technology can encompass both ancient creations like the calculator, compass, calendar, battery, ships, or chariots and

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current innovations like computers, robots, tablets, printers, and fax machines. Future technologies will feature advanced advancements like blockchain, smart cities, more sophisticated intelligent devices, quantum computing, quantum encryption, and enhanced artificial intelligence.

Both ancient and modern human civilizations have benefited from technological advancements, inventions, and applications utilized in communities to complete certain tasks, but they have also been challenged by them. Technological innovation has become critical to the prosperity and growth of societies. At the same time, human cultures' culture, ideals, and aspirations have influenced how they produced, embraced, and responded to technology. Human civilizations and their technologies are inextricably linked since technical systems are produced by people and reflect the core of a population's needs and culture. The cyclical nature of society and technology stems from the fact that each has a considerable influence on the other, beginning with human needs and progressing to technological innovations aimed at meeting those requirements. These technologies alter how civilizations behave and operate, influencing their economy and stimulating additional technological demand, resulting in a self-reinforcing loop. These interdependent ties of mutual influence and co-evolution have persisted throughout history, resulting in the co-development of two major types of synergistic partnerships, which vary depending on the civilization.

2. Methodology

This article employs a descriptive-analytical approach based on literature review and historical comparison. Scientific articles, digital reports, and worldwide economic statistics are used to assess the role of digital technology in today's society. The examination looks at technological effect in three areas: social contact, political activism, and economic progress.

Technological growth has played a critical role in the history of globalization, revolutionizing industry and enabling major societal transformation. For example, the creation of the steam engine revolutionized mobility and changed people's lifestyles. However, throughout modern human history, no technological breakthrough has had the same influence as digital technologies, particularly computers and the Internet. Socially, they have spawned new human relationships, such as social media, and have even facilitated the political expansion of democratic norms, grassroots political activism, election

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campaigns, and uprisings such as the "Arab Spring" [6]. They've even revolutionized social areas, such as public Wi-Fi access points.

The computer permitted the storing of massive amounts of data and the automation of previously inconceivable tasks for people. Computers eventually got integrated into consumer life, dramatically altering people's lifestyles. ARPANET, a network of computers at CERN that evolved into the Internet in 1992, currently has billions of users across the world. Email, game consoles, laptop computers, compact discs, mobile phones, digital cameras, smartphones, social networking websites, Bluetooth, 3D printers, Bitcoins, driverless cars, and virtual reality are some of the other notable digital technological advancements. Digital technologies are critical for increasing globalization. People can now interact in previously unthinkable ways because to advances in communication. This enables global information flow, making distant events directly relevant to individuals throughout the world.

Economically, this has resulted in a more worldwide and integrated economy. Transnational corporations have grown in importance as global economic activity has increased.

The Internet also plays an important political role. In addition to disseminating information and generating awareness about political ideas and theories, it acts as a forum for political campaigning—not only for regular election campaigns, but also for fostering mass movements. These movements have gained visibility in the age of globalization, as the Internet enables groups with modest means to express their issues to a large audience. The Internet has been regarded as a critical role in the spread of democratic principles, as demonstrated during the Arab Spring of 2011 [6].

The Internet currently accounts for a major share of worldwide trade. It facilitates the immediate sharing of information and data around the world, facilitating collaboration across a wide range of economic and social activities. The Internet has also created new markets and investment opportunities. It has evolved into a platform for entertainment providers such as Netflix and YouTube, which broadcast videos and music. These services are revolutionizing the entertainment sector, and some fear that traditional media—newspapers, television, and radio—are becoming outdated as the Internet gains traction (Enli & Syvertsen, 2016).

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3. Results

The rise of computers and the Internet has transformed communication, allowing for real-time worldwide information exchange and new types of social connection. Social networking, digital entertainment, and e-commerce have transformed public life. Automation and artificial intelligence technologies are altering production by enhancing efficiency and minimizing human error. Major firms such as Apple and Microsoft now outperform the GDP of several countries, highlighting the economic potential of digital sectors.

The Internet also hosts a number of e-commerce enterprises, including Amazon and Alibaba, which have emerged as major participants in retail and trade. These platforms enable numerous firms to market their products domestically and globally, presenting opportunities that might otherwise be unavailable through traditional channels.

Computers have enabled increasing automation. Automation is the use of technology, programs, robotics, or procedures to reduce human intervention. This is especially evident now in the manufacturing sector. For example, automotive manufacture has grown increasingly mechanized, with robots gradually displacing human labor. This leads to speedier and more efficient production, which can be a cost-effective investment for many business owners.

4. Discussion

Digital technology have accelerated globalization, enabled political mobilization (such as the Arab Spring), and fueled the emergence of internet subcultures. They also bring up concerns about digital dependency, privacy, and the future of labor. The combination of smart gadgets, social media influencers, and e-learning systems represents a shift in cultural and communication norms. The influence of automation in industry and services exemplifies how societies must adjust to rapidly changing workplaces.

The benefits of automation include reduced human mistake, weariness, and emotional interference. Machines, for example, are not stressed and can run at a constant rate. However, human workers are still required to supervise these machines, and they may need to adjust to changing work settings in the future [7]. Aside from physical manufacturing, automation has cyber applications such as network security, data processing, verification, and help via artificial intelligence and bot programs—such as cloud computing (remote networks and

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servers). When used in commercial contexts, this can save significant time and enhance workload capacity, potentially leading to more frequent business cycles. It also aids infrastructure management and telecommunications, allowing services to reach a larger number of clients and benefiting society.

In addition to their role in physical manufacturing, digital technologies are a significant economic industry in their own right. Examples include consumer electronics, military and security, e-commerce, digital entertainment, video games, streaming services, and social media. According to Forbes, some technological businesses, including Apple and Microsoft, have market capitalizations that exceed $1 trillion USD [11]. This means that their GDP exceeds that of several countries, including Greece.

The smartphone has changed the way people interact and had such a significant impact on society that the term "selfie" has become widely accepted in our vernacular [12]. Socially, the Internet has spawned a variety of online subcultures and phenomena, including memes and viral video sharing [8]. The video game industry has become an important component of leisure culture, and the field of e-sports is fast growing. Video game streamers and social media influencers have amassed millions of followers around the world, changing advertising, marketing, and, by extension, commercial operations [5].

Aside from social networks, other social implications of digital technology include new means of communication, such as text messages, instant messaging, and video conversations over mobile phones. This also suggests a decrease in face-to-face communication while allowing people to broaden their social networks [6].

5. Conclusion

In conclusion, digital and computer technologies have had an immense impact on human society from social, economic, political, and cultural perspectives. These technologies aid globalization by promoting international trade and automating economic production—not only in physical manufacturing but also in the creation and dissemination of ideas, as well as the instantaneous exchange of information and communication, thereby enabling global economic flows. They have an impact on how society is structured and how people interact, such as through the use of social networks and internet culture, which have permeated daily life. Political engagement, particularly grassroots activity, has grown more apparent

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thanks to the Internet, bringing political concerns to the forefront of the global conversation. Culturally, the dissemination of various types of art and media from all over the world to a worldwide audience has become more prevalent.

References

1. Alberts, D., Papp, D. The Information Age: An Anthology of Its Impact and Consequences. CCRP Publications, 1997.
2. Anastasiou, M. Modern Trends in Sociological Theory. 2020. KPE, p. 327.
3. Arjomand, S. A. The Growth of Interdisciplinary Research in the Social and Human Sciences and the Challenge of Comparative Sociology. European Journal of Social Theory. 2017; 20(2):292–3064.
4. Bezhovsky, Z., Poorani, S. The Evolution of E-Learning and Emerging Trends. Information and Knowledge Management. 6(3), pp. 50–575.
5. Christofidou, A. Modern Sociological Theories: Week 5 of Critical Theory. KPE. 2021, p. 211.
6. Christou, G. Social Movements. 2020, p. 306.
7. Champa, D., Lux, J., Srivastava, S., & Westcott, K. Digital Media Trends Overview: Video Games Go Mainstream. Deloitte. 2019, No. 8.
8. Clement, A. NSA Surveillance: Exploring the Geography of Internet Interception. iConference Proceedings 2014, pp. 412–425.
9. Day, S. E-Commerce, Alibaba, and the Rise of Virtual Currencies. Issues in Interdisciplinary Research. 2010. 1(3).
10. Dioun, N., Fligstein, N. Economic Sociology in The International Encyclopedia of the Social & Behavioral Sciences. 2015. 2(7).
11. Forbes. Top 100 Digital Companies. 2021.
12. Merriam-Webster. Selfie. 2021.