A Study on Impact of Recent Technology Among The Modern Society With Reference to Coimbatore City

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Abstract- *This study investigates the profound socio-economic shifts in Coimbatore city driven by recent technological integrations, specifically focusing on Industry 4.0, Artificial Intelligence and Smart City initiatives. Traditionally recognized as an industrial and textile hub, Coimbatore is currently undergoing a rapid digital metamorphosis into a Tier-2 IT powerhouse. The primary objective of this research is to evaluate how these technologies have altered urban living standards, industrial productivity among MSMEs, and social behavior among the city's residents.*

Keywords: Coimbatore, Industry 4.0, Smart City, Digital Transformation, MSMEs, Socio-economic Impact, Urbanization

I. INTRODUCTION

Coimbatore, traditionally celebrated as the "Manchester of South India" for its sprawling textile industry and manufacturing prowess, is currently undergoing a profound digital metamorphosis. As we progress through 2026, the city has transcended its industrial roots to emerge as a premier destination for Information Technology (IT) Artificial Intelligence (AI) and Smart City innovation. This study explores how the infusion of recent technologiesranging from Generative AI and IoT in manufacturing to digital governance under the Smart City Missionis reshaping the social, economic, and cultural fabric of Coimbatore's modern society.

Objectives:

1. To study the overall impact of recent technology on the lifestyle and behavior of people in Coimbatore city.
2. To analyze how Recent technology influences Modern Society in current trends.

Statement the problems:

The core problem facing Coimbatore is a widening socio-economic disparity driven by the city's rapid, yet uneven, technological acceleration. While the transition from the "Manchester of South India" to a high-tech "Smart City" has invited global investment, it has simultaneously created a "dualspeed" economy where traditional MSMEs the historic backbone of the city's pump and textile industries struggle to survive against the high costs of automation and AI. This technological shift has triggered a severe skill mismatch, where the local workforce is increasingly bifurcated between a high-earning digital elite and a traditional labor class facing job insecurity and social alienation. Furthermore, the rapid expansion of IT corridors has outpaced urban infrastructure, leading to environmental strain and a digital divide that threatens to marginalize the city's aging population and rural-adjacent communities. Consequently, Coimbatore faces the critical challenge of ensuring that its technological evolution does not come at the expense of its industrial heritage and social inclusivity.

Limitations of study:

The study is confined only to Coimbatore City, and therefore the findings cannot be generalized to other regions.

The research is based on a limited number of respondents, which may not accurately represent the entire population.

The accuracy of the study depends on the honesty, awareness, and understanding of the respondents, which may vary.

The study considers only selected recent technologies and hence does not include all technological developments.

Rapid technological changes may reduce the relevance of the findings in the future.

II. RESEARCH METHODOLOGY

This chapter explains the systematic approach used to conduct the research. It defines the research design, sampling procedure, data collection methods and tools, data analysis techniques, and validity measures applied in this study.

Research Design:

The study adopts descriptive research design. Descriptive research helps describe the characteristics of the population and the impact of technology adoption, usage patterns, and social-economic effects among residents of Coimbatore city.

Sample size

The study was conducted among 115 respondents representing different demographic groups with the population.

Sampling Techniques:

Sampling is the process of selecting a small group of individuals from a larger population to represent the entire population. In this study, respondents from different age and occupational groups in Coimbatore city were selected using stratified random sampling.

Population

The research was conducted among the youth in Coimbatore City, Tamil Nadu, which is one of the fastest growing urban centers in South India.

Area of Study:

The area of study is Coimbatore City, located in the state of Tamil Nadu, India. The research focuses on residents of Coimbatore city to examine the impact of recent technology on modern society within this urban setting.

Methods of data collection:

Primary Data

Primary data refers to firs hand information collected directly from the respondents for the purpose of this study. In this research, primary data was collected through a structured questionnaire. The questionnaire consisted of close-ended and multiple-choice questions designed to gather information about the usage of recent technologies such as smartphones, social media, digital payment systems, online shopping platforms, and online education tools.

Secondary Data:

Secondary data was collected from journals, books, newspapers, government reports, websites, and online articles related to technology adoption and its societal impact.

III. ANALYSIS AND INTERPRETATION

Table-1 Demographic profile of the Respondents

Demographic profile		No. of Respondents	Percentage
Age	Below 18	9	7.83%
	18-25	35	30.43%
	26-35	24	20.87%
	36-50	17	14.78%
	Above 50	30	26.09%
Gender	Male	53	46.09%
	Female	50	43.48%
	Others	12	10.43%
Educational Qualification	School Level	6	5.22%
	Undergraduate	33	28.7%
	Postgraduate	45	39.13%
	Professional Degree	26	22.61%
	Others	5	4.35%
Occupation	Student	20	17.39%
	Employed	29	25.22%
	Self-employed	48	41.74%
	Homemaker	17	14.78%
	Retired	1	0.87%

INTERPRETATION: The demographic profile shows that the majority of respondents are young adults aged 18–25 (30.43%), with a significant portion above 50 years (26.09%), reflecting diverse age participation. Males (46.09%) slightly outnumber females (43.48%), and respondents from other genders account for 10.43%. Most participants are well-educated, with postgraduates (39.13%) forming the largest group, followed by undergraduates and professional degree holders. In terms of occupation, self-employed individuals (41.74%) dominate, along with employed respondents and students, indicating a balanced representation of various professional backgrounds.

Finding of the study

1. The data shows that a majority of respondents (59.13%) use smartphones daily, indicating high adoption of mobile technology. However, 40.87% do not use smartphones daily, reflecting that a significant portion still limits or avoids daily usage.
2. Most respondents (46.09%) spend 4–6 hours per day on digital devices, showing moderate to high digital engagement. A smaller portion (6.96%) use devices for less than 2 hours, while 10.43% spend over 6 hours, indicating varying usage patterns.
3. The majority of respondents (43.48%) use technology primarily for work, highlighting its importance in professional activities. Education and entertainment each account for 22.61%, while only a small portion (6.96%) use it mainly for communication.
4. Most respondents (47.82% combining Strongly Agree and Agree) feel that technology has improved their overall lifestyle. However, a significant portion (33.91%) remain neutral, indicating mixed perceptions among users.
5. A majority of respondents (38.26%) remain neutral on whether technology has reduced face-to-face interaction, while 38.26% (Strongly Agree + Agree) feel it has decreased personal interactions. This indicates mixed opinions about technology's impact on direct social communication.
6. Most respondents (41.74%) feel that technology has negatively affected family and social relationships, while 33.04% believe it has both positive and negative effects. Only a small portion (6.96%) think it has no impact, showing that technology significantly influences social dynamics.
7. Around 37.4% of respondents (Strongly Agree + Agree) feel that technology increases work stress, while 33.04% remain neutral. This indicates that technology contributes to workplace pressure for a significant portion of users.
8. A majority of respondents (43.47% combining Strongly Agree and Agree) believe that technology helps people stay connected across age groups. However, 35.65% remains neutral, indicating varied perceptions of its effectiveness in bridging generational communication.
9. Around 46.08% of respondents (Strongly Agree + Agree) feel that miscommunication is common due to digital communication. However, 37.39% remain neutral, showing that opinions on communication challenges via technology are mixed.
10. About 35.66% of respondents (Strongly Agree + Agree) feel that technology causes addiction, while 34.78% remain neutral. This indicates that concerns about dependency on technology are present but not overwhelming among users.
11. Around 43.48% of respondents (Strongly Agree + Agree) consider cybersecurity and privacy as major concerns. However, 36.52% remain neutral, indicating moderate awareness and caution regarding digital security issues.
12. A total of 32.05% of respondents (Strongly Agree + Agree) feel that technology negatively affects physical and mental health, while 41.74% remain neutral. This suggests that while some perceive health impacts, a large portion of users are uncertain or unaffected.
13. About 40.87% of respondents (Strongly Agree + Agree) feel that older people face difficulty adapting to new technology, while 30.43% remain neutral. This indicates a noticeable digital divide between younger and older users. Table-15 Technology has changed lifestyle patterns.
14. Around 40.87% of respondents (Strongly Agree + Agree) feel that technology has changed lifestyle patterns, while 34.78% remain neutral. This shows that technology has significantly influenced daily habits and routines for many users.
15. Most respondents (49.57%) perceive the overall impact of recent technology on society as neutral, while 43.47% (Highly Positive + Positive) view it positively. Only a small portion (6.96%) see it negatively, indicating that technology's influence is generally favorable or balanced.

IV. FINGINGS

- Majority of respondents (30.43%) belong to the age group 18–25 years.
- Most respondents are male (46.09%), followed closely by female respondents (43.48%).
- A higher proportion of respondents (39.13%) are postgraduates.
- Majority of respondents (41.74%) are self-employed.
- More than half of the respondents (59.13%) use smartphones daily.
- Most respondents (46.09%) spend 4–6 hours per day on digital devices.
- The main purpose of using technology for most respondents (43.48%) is work.
- Nearly half of the respondents (47.82%) agree that technology has improved their overall lifestyle.
- A considerable number of respondents (38.26%) feel technology has reduced face-to-face interaction.
- Majority of respondents (41.74%) believe technology has negatively affected family and social relationships.
- Around 37.4% of respondents feel technology increases work stress.
- About 43.47% agree that technology helps people stay connected across age groups.

- Nearly 46.08% believe miscommunication is common due to digital communication.
- Around 35.66% agree that technology causes addiction.
- About 43.48% consider cybersecurity and privacy as major concerns.
- A large portion (41.74%) remain neutral about technology affecting physical and mental health.
- Nearly 40.87% agree that older people face difficulty adapting to new technology.
- Around 40.87% agree that technology has changed lifestyle patterns.
- Majority of respondents (49.57%) feel the overall impact of recent technology on society is neutral.

V. SUGGESTIONS

To conclude, the study suggests that recent technologies such as smartphones, social media, digital payments, artificial intelligence, and online services have significantly influenced the lifestyle of people in Coimbatore city. While technology has improved communication, education, business operations, and access to information, it has also created challenges like digital addiction, privacy concerns, and reduced face to face interaction. Therefore, it is recommended that awareness programs and digital literacy initiatives should be conducted to educate citizens about responsible and safe usage of technology. Educational institutions and organizations in Coimbatore should promote balanced technology use, encourage skill development in emerging technologies, and implement proper cyber security measures. The government and local authorities can also support smart city initiatives to ensure sustainable and inclusive technological growth. By maintaining a balance between technological advancement and social values, modern society in Coimbatore can achieve overall development and well-being.

VI. CONCLUSION

Recently technology has become a driving force in reshaping modern society in Coimbatore, influencing nearly every aspect of daily life. From digital payments and e-commerce to smart city infrastructure and online education, technological advancements have brought greater convenience, efficiency, and connectivity to residents. Businesses have adapted to digital platforms, enabling them to reach wider markets and improve service delivery. Education has become more accessible through online learning tools, especially after the COVID-19 pandemic, bridging gaps for students across different backgrounds. Moreover, smart technologies in traffic management, waste disposal, and public safety have contributed to better urban living. However this rapid technological shift also presents challenges. Automation and digitization have led to job displacement in certain sectors, and increased screen time has raised concerns about mental health and social isolation. The digital divide still affects some communities, limiting equal access to opportunities. Overall, the impact of recent technology on Coimbatore's society is largely positive, fostering economic growth, improved infrastructure, and enhanced quality of life. To maximize benefits and minimize drawbacks, it is essential to promote digital literacy, ensure inclusive access and encourage responsible technology use. With balanced adoption and supportive policies technology can continue to empower Coimbatore's residents and drive sustainable development for years to come.

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