Impact Factor (QJIF): 8.47 E-ISSN: 2583-1615, P-ISSN: 3049-3498

International Journal of Research in Academic World

Received: 10/November/2025 **IJRAW:** 2026; 5(SP1):193-195 **Accepted:** 26/December/2025

A Role of Technology Implementation and Development on Society, Education and Industry

[*1]Dr. G Vijayalakshmi

[*1]Assistant Professor, Department of Commerce and Research Centre, Sourashtra College, Madurai, Tamil Nadu, India.

Abstract

Technology's implementation and development profoundly transform society, education, and industry by enhancing efficiency, access, and innovation, while also posing challenges like inequality and job displacement. In education, it enables personalized learning and wider resource access in industry, it drives automation and global connectivity and in society, it facilitates communication and new social structure creating both opportunities and a need for adaptation

Technology and society are increasingly intertwined with IT shaping daily life in education, healthcare business and more. Information and communication technologies allow for easy exchange of ideas, creation of communities and large-scale financial transactions. The rapid pace of technological change can lead to negative consequences, such as increased inequality or job losses due to automation. Technology provides access to vast online information, digital libraries and alternative teaching materials, making learning dynamic and interactive. Tools like smart boards and online platforms support personalized learning paths and more engaging, interactive classroom experiences. Technologies facilitate innovative techniques such as project-based learning and collaborative group work, preparing students for future challenges. Educational technology can help teachers manage their workloads and provide effective learning environment. Technological integration leads to increased automation, enhancing productivity and efficiency across various sectors. IT provides tools to store, retrieve, transmit, and manipulate data, improving business operation and decision-making.

Keywords: Social innovation, design project, ubiquitous technology.

Introduction

Technology Implementation development is the process of introducing new technologies into an organization to Improve efficiency and achieve goals, and it involves developing a strategy, planning and executing the integration, and providing support for employees. This can range from selecting appropriate software and hard ware to training staff and managing organizational change to ensure a successful and seamless transition that enhances productivity, streamlines operations, and boosts innovation. The research and creating of new methods, materials, and technologies to improve efficiency, effectiveness, and capability. To produce innovative and advanced solutions that can lead to cost reductions and enhanced performance. Developers must also navigate legal, ethical, and privacy concerns. The process of integrating new technology, such as software, hardware, or systems, into an organization's existing operations. To improve workflows, boost productivity, and achieve business objectives, leading to better service delivery and a competitive edge.

A successful implementation involves strategic planning careful execution, and ongoing support. The rapid development and pervasive integration of technology present a complex problem for society, education, and industry. While technology offers unprecedented opportunities for advancement and efficiency, its progress is unevenly distributed and accompanied by profound ethical dilemmas, social disruption, and economic challenges. The core problem is how to harness technology's transformative power for collective good while mitigating its risks and ensuring an equitable, just, and sustainable future.

Statement of the Problem

Technology's impact on society is a double edged sword, challenging social institutions and individual well-being in complex ways. Despite technologies that connect the world, a significant digital divide persists. Differences in access, affordability, and digital literacy deepen existing. Socio-econoic inequalities, leaving marginalized communities further behind. Excessive use of technology can lead to social isolation and disconnect from face-to-face interaction, harming relationships and mental health. Social media algorithms can also fuel polarization and spread misinformation, contributing to societal fragmentation. As technology becomes more autonomous and integrated into daily life, it raises serious ethical questions. Issues of privacy, surveillance, accountability for autonomous systems, and misuse challenge the very fabric of social trust and individual

***Corresponding Author:** Dr. G Vijayalakshmi

rights.

While technology promises to transform and democratize education, It's integration faces significant hurdles that challenge traditional teaching methods and create new forms of disparity. The "digital divide" in education creates unequal learning opportunities. Students in under-resourced communities, often lack reliable internet, devices, and technical support, disadvantaging in an increasingly online learning environment.

Technology is a central driver of industrial growth, but its rapid evolution introduces complex challenges, particularly concerning labour, ethics, and infrastructure. The rise of automation, robotics, and artificial intelligence threatens displays workers, particularly those jobs. This created anziety abour employment and necessitate upskiling and reskiling efforts prevent large scale unemployment.

Review of Literature

Hoenig (1995) as well as Lai (2016) noted that the rate at which payment systems develop depends largely of a struggle between rapid natural various to new product or acceptance. A number of theories have proposed to explained consumers to use. These included but were not restricted to the theory of Diffusion of Innovation that started in 1960, the Theory of Task-technology fit (TTF) (Goodhue, and Thompson, 1995), the theory of reasonable. Action (TRA) (Fishbein and Ajzen, 19675), Theory of planned Behaviour (TPB) (Ajzen 1985) Decomposed Theory of Planned Behaviour, (Taylor and Todd, 1995) the Technology Acceptance Model (TAM) (Davis, Bogozzi and Warshaw, 1989), Final version of Technology Acceptance Model (TAM) Venkatesh and Davis (1996) Technology venkatesh and Davis 2000, unified Theory of Acceptance and Use of Technology (UTAUT) Venkatesh, Morris, Davis and Davis(2003) and Technology Acceptance Model 3 (TAM3) Ven kates and Bala (2008).

Scope of the Study

In the village, urban, city area of our country technology development and implementation on society, education and industry. Its will be purposes on the economic development new technology implementation of our country.

Objectives:

- To study the functions of technology implementation and development.
- To study the role of technology implementation development on society, education and industry.
- To unalyse the member perception towards the functioning of the Technology development and implementation on society, education and industry.
- To review the role of technology development and implementation of society, education, industry.
- The present finding conclusion and often suggestions based on the finding of the study.

Methodology and Data Collection

This consists of both the primary and secondary data.

Primary Data

Primary Data will be collected through a well structures interview schedule after a project as through pilot study. Based on the experience in the pilot study and discussion with the guide the interview schedule will be thoroughly revised to suit to collect the primary data from the respondents.

Secondary Data

Besides online sources the secondary data will be collected through, journals, books, magazines and past study related to the study.

Sampling Design:

To collect primary data, 30 respondents will be selected based on proportionate random sampling method from the selected technology implementation developments on society education and industry.

Limitations of the Study

Technology can exacerbate existing socio-economic gaps. A lack of access to devices, reliable internet, and digital literacy training disproportionately affects marginalized and low-income communities. During the COVID-19 pandemic, this was particularly evident in education, with many students lacking the necessary resources for remote learning. The Digital divide is a major barrier to equal educational opportunity. Schools in underserved areas often lack reliable internet, sufficient devices, and the funding to invest in new technologies and curricula. Implementing new technologies expecially advanced concepts like industry 4.0 requires a substantial investment in new equipment, software and training. This high initial cost can be a smaller companies are those with limited capital.

Tools for Analysis

Calculation using Spearman correlations have been conducted in order to test correlations in-between the proposed variables. The following table (Table 1) shows the obtained results, through the use of SPSS statistics program.

Table 1: Spearman correlation table for pairs of variables.

Various	Spearman Correlations	Significance
C_size vs. Strat_und	0.287	0.004
Avg_strat Vs. Strat_und	0.227	0.022
Avg_strat Vs. Avg_tech	0.303	0.002
Strat_und Vs. Tech_und	0.174	0.082

Finding of the Study:

- Most of the respondents join Technology implementation and development of society education and industry mutual help.
- Majority of the respondent size of ideal group has 12-15 innovative Technologies development
- Most of the respondent of prepare a well development changes of society education and industry.
- Majority of the respondents modern Technology implementation and developments of the society, education and industry.

Suggestion

- Use the internet of Things sensors to optimize resource use by monitoring traffic, emerge grods, and water systems in real time. Invest in renewable energy sources, such as solar and wind and implement smart grids to improve energy efficiency. Develop Technology led citizen-centric governance for services like public safety, waste management, and accessible government information.
- Online learning platforms and digital resources allow students to access high-quality education from anywhere,

promoting distance learning and offering flexible study schedules.

- Automation, AI and robotics streamline processes and handle repetitive tasks, freeing human resources for more creative and strategic work.

Conclusion

Technology has become a crucial part of our society, without Technological advancements so much of our everyday leaves would be drastically different. As Technology develops, it strives to fulfil the changing needs of society. Technology progresses as society evolves. That being said progress comes at a price. This price is different for each person and various based on how much people value Technological and scientific advancements in their own lives. Thomas Parks Hughes's Networks of Power compared how electric power systems developed in America, England and Germany, showing that they required not only electrical but social engineering to create the necessary legal frame-works, financing, standards, political support, and organizational designs.

References

1. https://www.researchgate.net
2. https://en.wikipedia.org
3. https://hbr.org
4. https://www.sciencedirect.com
5. https://africadesign.designsociety.org
6. https://www.tandfonline.com.