

SOCIO-PSYCHO EFFECT OF INTELLIGENT SYSTEM ON SOCIETY

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ABSTRACT

As a result of the introduction of Technology equipped with intelligence, especially AI (Artificial Intelligence), the very social and psychological mechanism that results in the continuity and stability of the society has begun to subside and with it the stability and sanity of the society will get ripped out. It will result in creating sociopathic, psychopathic, unstable, depressed, artificial human beings with no sense, no patience and no sanity. If this state of affairs will continue the human beings will crave for love, crave for emotions and crave for attention. They may pretend themselves as harbingers of advanced technology and computerized world but they will be dying every single moment in the absence of societal bonds and social relationships. The relationship between humans, automated machines and their future impact on society has been a key issue for researchers in the field of Psychology, Economics and Sociology. Through this paper an attempt has been to throw light on social and psychological effects of technology on human society in general and Indian society in particular.

Key Words: Artificial Intelligence, Machine, Psychosomatic disorders, Technology, Unemployment

1. INTRODUCTION

“Technology will destroy this planet mentally, if responsible individuals do not come forward to advocate for responsible use of technology.”[2] Today we have become like the most primitive man, once more global wanderers, but information gatherers rather than food gathers [7]. Software systems and increasing use of Artificial Intelligence have increasingly threatened managerial and professional jobs. Technology including AI or Intelligent System and new software technologies are shouldering more responsibilities on machines replacing human beings which have increased human anxiety and depression [1, 8]. 25% in US, 15% in UK and approx. 30% jobs in India are at risk due to increasing use of technology [4, 9]. As per the NCRB data and the report submitted by the Ministry of Home Affairs, total of 3,548 people in 2020, 2,851 in 2019 and 2,741 in 2018, 2,404 in 2017 & 2298 in 2016 committed suicide due to unemployment. 24% increase has been recorded in 2021 [1, 6, 8]. Researches from Villanova University and Ball State University examined the data at country and concluded that a 20% of increase in technology will increase 30% oh health risks [11]. As per the reports of the Research it was clearly stated that almost 50% of the jobs could be at risk of technology especially of

Artificial Intelligence by 2033 [4, 9] which will result in psychosomatic disorders (stress, strain and anxiety like hypertension, Blood pressure, diabetes mellitus etc.). Technology affects human beings both psychologically and physiologically thereby bringing about a change in the social structure of society, which also brings about a number of social and cultural changes the repercussions of which are faced by the people. The introduction of technology leads to transformation of human existence in different spheres be it social, biological, psychological or cultural [10]. Intelligent System in the form of computers, Computer Programs, Artificial Intelligence etc. affect the people more who are mentally and psychologically not prepared to such type of changes in technology. However, for manual workers it is not much harmful as this new form of mechanization was mere an extension of the work which they were doing earlier but in case of office personnel who encounters such development which has menaced their status by bringing it closer to machine operator. People are not assured that the benefits of this technological advancement will be distributed equally among them or not. Human beings placed indifferent sectors industries, working class, who are engaged in plants accrue the hardships of technology because of their replacement by machines. The perspective that technology will solve each and every problem of the society is in fact digital fundamentalism which is far more harmful than religious fundamentalism.

1.1. Research Methodology: Descriptive research methodology has been used to gather the data in order to describe the phenomenon with its causes and possible effects on society. Both Primary and secondary tools of data collection have been used. The sample size is selected on the basis of random sampling technique from among the technologically advanced prone sectors of capital city Dehradun and its neighboring cities. The study conducted on 767 respondents with respect to social and psychological impact of technology.

1.2. Hypothesis: Hypothesis framed, are as follows

- i. Technology has resulted in psychosomatic disorders.
- ii. Technology has caused societal issues like suicide, accidents and family conflicts.

1.3. Objectives of the Study: these are:

1. To study the social and psychological effect of technology on human societies.
2. To spread awareness among the people about the limitations of technology.
3. To assess the damage caused by technology to society and mankind.

2. HOW TECHNOLOGY IS AFFECTING THE SOCIETY & HUMAN LIVES SOCIALLY & PSYCHOLOGICALLY?

Technology has great psychological impact on the people, involved in the process. At first, it has an emotional reaction with respect to new technological methods in general and impact of technological innovations in particular and secondly, the reaction of the people who are confronted by new working and living conditions is exposed to psychological stress and strain.

2.1. Impact on Professional Behavior: The psychological impact of technology, advanced, Intelligent System on human beings can be traced in the following ways:

- **Occupational Strain:** Long monotonous working hours with machines or computers directly affects the mind and results in stress and promotes strain [1, 8]. Increasing use of Artificial Intelligence in every sector is causing panic among the working class; even judiciary is also having the same fear.
- **Stress caused by Biometric Machines at workplace:** Using Intelligent System like biometric software to mark the attendance or calculate the performance of the employees has become many times not only finicky but results in stress, strain and accidents thereby. [5, 8].
- **Increase in the ratio of Anxiety:** The increasing human anxiety and depression due to unemployment caused by the increased use of machines, especially in the form of job insecurity, has resulted another kind of socio-psycho disorder [1, 8].
- **Frustration, Aggression & Inferiority Complex:** Irritation causes frustration while aggression is triggered by frustration. Artificial intelligence, robots, bellhop robots, software algorithms, self-driving vehicles etc. are replacing man and made the situation more panicky. Frustrated and aggressive behavior is its outcome [1, 8].
- **Self-Homicide:** As per the NCRB data and the report submitted by the Ministry of Home Affairs, total of 3,548 people in 2020, 2,851 in 2019 and 2,741 in 2018, 2,404 in 2017 & 2298 in 2016 committed self-homicide (suicide) due to unemployment in which 24% increase has been recorded in 2021 [6]. The most important reason of this was substitution of man power by machine power. Online games have also contributed in self-homicide. As per the report of India Times, the ‘Blue Whale Challenge’ online game caused over 130 deaths while ‘The Pass Out Challenge’ caused 250 to 1,000 deaths in one year in U.S [5].

2.2. Social Effects of Technology: It can be understood as follows:

Effects on Family Life	Disintegration of joint family system; Late and Inter caste marriages issues; Increasing number of divorces and squabbles; Infanticide by using technological advancement; no identity of marriage institution; Loss of Sex mores encouraging computer pornography, Lessen the role of family as an agency of socialization, Invasion on privacy by vast computer data networks [3, 8, 10].
Effects on Economic Life	Birth to capitalism and its attendant evils; Caused economic depression; Unemployment & industrial disputes; Increase of accidents; disease and downgrading and monotony of jobs; Slavery of machines; Huge capital loss in technology and its regular upgradation [9].
Effects on Socio-Political Life	Commercialized recreation; Increase in individualism, Hedonism & emotional instability. Artificial socio-religious relationships. Threat to nation and nationalism; Increase in undue influence of pressure groups on state; Increase in size and power of bureaucracy [3, 8].

2.3. Social Isolation: Addiction to technology makes a person socially isolated with zero emotion and socialization that causes depression in a sense. Being associated with science and technology we feel that we are disconnected with humanity [3, 10].

2.4. Deviance & Anomie: Day and night with computers, surrounded by heterogeneous and complex rules of behavior. Capitalism, Cultural lag, impersonality of relationships, predominance of individualism and a

highly mechanical life are all the attributes of technology which results in various mental and emotional disorders. Neurosis, psychosis, insomnia etc. are its outcomes which further results in anomie and deviance.

2.5. Miscellaneous Effects on Society: Distorted Exclusiveness of social groups; Dehumanizing working conditions; Isolating social forms inhibiting ethical relations; Forced participation in social processes; Loss of family role; Anti-Intellectualism & Vulnerability of social systems [3]. Though the system is so called ‘Intelligent’ but it is having zero emotional quotient with ‘data input’ based decision maker only.

3. TECHNOLOGY & HUMANITY: AN ANALYSIS

To assess how much technology equipped with Intelligent System has affected the world we live in, a survey on socio- psycho impact of technology and increasing use of Artificial Intelligence in different sphere of life was conducted in January 2022. The data was collected using random sampling technique from 767 respondents. Various Questions were asked and the responses recorded thereon. The response and its analysis is as follows.

Table-1: Fact Sheet of responses recorded

Questions \ Responses	Paralyzed the Society	Increased risk of depression	Increased job insecurity	Caused psychosomatic diseases	Resulted in social trauma	Digital fundamentalism more fatal	Shattered societal organization	Caused ecological imbalance	Exceeded humanity	Technology a dangerous master
Strongly Agree	75	59	48	50	31	43	48	45	41	29
Agree	10	16	30	19	20	23	26	29	17	43
Neutral	11	13	10	21	30	7	23	16	21	13
Disagree	3	10	10	7	7	15	2	4	9	4
Strongly Disagree	1	2	2	3	12	12	1	6	12	11

Source: Survey on socio-psycho impact of technology2022

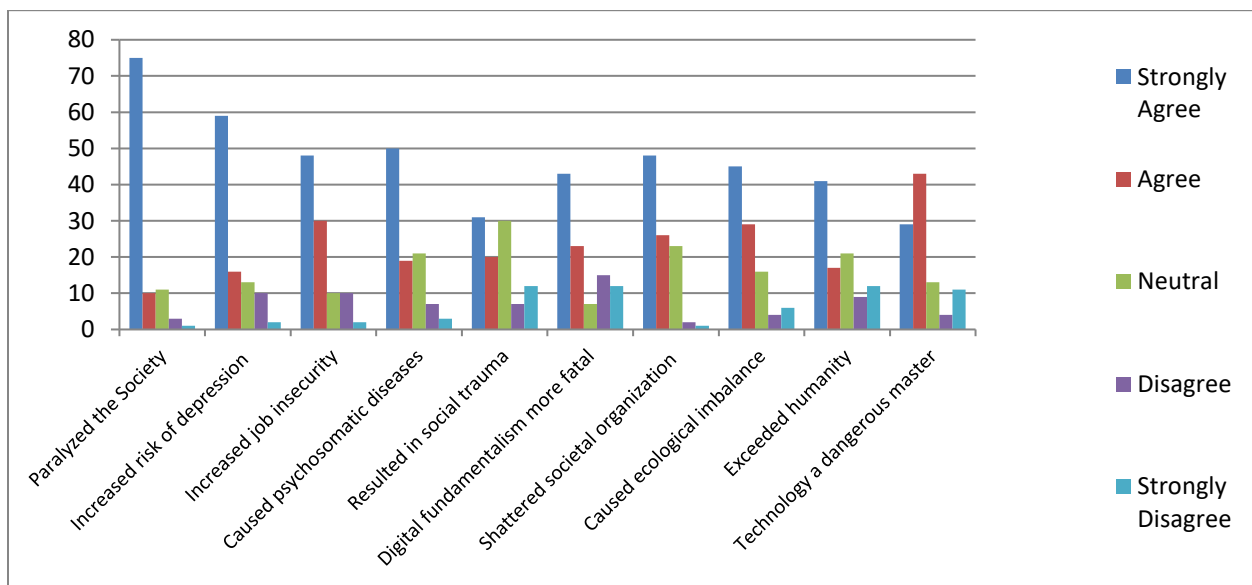


Figure-1: Graphical representation of responses

3.1. Data Interpretation

On being asked whether technology in the form of Intelligent System has spread its wings to the extent that it has paralyzed human society and human lives or not, out of total no. of respondents (767) 75% strongly agreed that technology has actually handicapped human beings and human life. When the respondents were asked whether technology has changed socio- psychological behavior of men in present scenario or not, 59% of the people believed that technology is socially and psychologically affecting the behavior of people while only 2% strongly disagreed. Technology equipped with Artificial Intelligence has already replaced human being with machines and in future it will shake the foundation of economy by taking over the jobs. Out of total no. of respondents 48% agreed that technology equipped with Artificial Intelligence is not only replacing human labor but also creating insecurity in the minds of people whereas only 2% denied the same. Working together day and night with machines, human being has themselves become mechanized which has brought about host of many diseases but psychosomatic disorders. The responses highlighted that 50% of the people strongly agreed to the viewpoint that there is a close connection between technology and psychosomatic diseases which gives birth to hypertension, neurotic disorders, cardiac arrests etc. Hence the hypothesis formulated that technology has resulted in psychosomatic disorders proved true. Technology has increased the ratio of social isolation making the people emotionally and socially feeble. The inference is increase in the ratio of suicide. 31% of them strongly agreed and 20% agreed that technology has resulted in social isolation, breakdown of social relationships and an effective determinant of suicidal rates and 20% agreed to it. Hence the hypothesis formulated that technology has caused societal issues like suicide, accidents and family conflicts proved true. Digital fundamentalism is a new term which signifies that technology will triumph over every problem through machines, intelligent system based on Artificial Intelligence and electronic gadgets. When people were asked that whether digital fundamentalism is far more fatal than religious fundamentalism 43% of them strongly agreed to this fact whereas 7% were neutral to this viewpoint. Has technology created a social disequilibrium? When people were asked the question, 369 of the total i.e. 48% were of the opinion that technology has disturbed the consensus of society and have shattered societal organization while 1% strongly disagreed to the same. To what extent it is true that technology is creating an ecological imbalance. Out of the 767 respondents 344 (45%) strongly agreed to it, 219 (28%) agreed, 122(16%) were neutral and 39(5%) disagreed whereas 43 (6%) were strongly disagreed. Technology equipped with intelligent system is a boon to society but it is undoubtedly a bane if we observe it from close quarters. Pertaining to this aspect 316(41%) of the respondents strongly agreed to this viewpoint, 127 (17%) agreed to it, 164 (21%) of them were neutral, 67(9%) disagreed to it and 93(12%) strongly disagreed to the same. Technology is a lethal weapon that results in the demolition of the society. The responses signify the same. A total of 222 (29%) people out of 767 strongly agreed to this viewpoint that technology is a useful servant but a dangerous master, 326(42%) agreed to it, while 96(13%) had a neutral viewpoint.

4. FINDINGS OF THE STUDY

The study was conducted on 767 respondents with respect to social and psychological impact of technology reveals that-

- i. Intelligent System and machines in the form of computers, smart phones etc. have a vast and huge impact on users not only in terms of their economic life but on their physical and mental health too.
- ii. Being overly connected with technology many psychological issues, such as distraction, depression; psychosomatic disorders are becoming the voice of the day.
- iii. The repercussions of the same can be observed in the social and psychological behavior of the people which verifies the first hypothesis.
- iv. In the absence of interaction there is a feeling of social isolation.
- v. Apart from the same because of the constant engagement with the machines the cohesion of family life has shattered due to inconsistency between expectations and achievements.
- vi. A total of 237 respondents strongly agreed that technology has resulted in social isolation, breakdown of social relationships and an effective determinant of suicidal rates thus verifying the hypothesis.
- vii. Technology especially growing AI has given birth to unemployment and insecurity in the minds of people.
- viii. Majority opinion states that technology with intelligence has unleashed our humanity.

5. CONCLUSION

A couple of months back from the office of National Statistics it was estimated that around 15 million jobs in England run a high risk of being partially or completely automated. The report is just one of the latest in a long line of educated guesses about how technology will impact on the employment and society in decades ahead. The Brookings Institution at Washington conducted a research on technology and concluded that 25% of the US Workers are at high risk of being automated out of job. This is a beginning of social destruction as the resultant unemployment afflicts some groups to a much greater extent than others. On family front, very soon AI based machines will replace spouses and will extinct many social relations. Moving towards Society 5.0 will result in massive social upheaval. Modern societies consider it a social ill which will adversely affect the other parts of the society as well as change is interrelated and inter connected. If any particular part of society changes it automatically affects the other parts too.

6. SUGGESTIONS

1. Use of intelligent system must be allowed in prescribed limits and that too in non cognitive activities. In cognitive acts, AI or intelligent system should be a servant only, not a master.
2. Appropriate policy measures must be taken for tackling the huge disruptions and adverse effects of technology on society.
3. Man must think in terms of his priorities and set certain policies which could help him connect with the people. We have to keep in mind that AI or intelligent system can give us comfort and physical pleasure but never a humanitarian support.
4. Technology must be shut off at a particular time every day. These practices must be internalized by human beings if humanity is to be protected from the hands of technology.

5. Controlling the desire for entertainment and instant gratification is needed immediately which has hampered the ability of man to think independently.
6. Reversing back and take the remote of our lives in our hands is also needed rather than being a puppet to technology.

At conclusion AI based intelligent system can work fast and give us desired results in seconds but in no case it can substitute human brain, family & social bonding, human, affections and emotions.

REFERENCES

- [1] A. Chaudhary, A. Verma, R. S. Jha, N. Tyagi, 'Why Do We Fall? A Brief Study of a Silent Killer: "Depression", Studies in Indian Place Names' (UGC Care Journal) ISSN: 2394-3114 Vol-40-Issue-71, 2020.
- [2] Abhijit Naskar, The Gospel of Technology, e-book, Neuro Cookies Publisher, ISBN:9781393533801, 2020
- [3] B. Barbosa Neves, R. Franz, R. Judges, C. Beermann, R. Baecker. 'Can Digital Technology Enhance Social Connectedness Among Older Adults? A Feasibility Study'. *Journal of Applied Gerontology*. 38(1):49-72, DOI: 10.1177/0733464817741369, 2019.
- [4] E. Brynjolfsson, T. Mitchelli, &D. Rock, 'What can machines learn, and what does it mean for occupations and the economy?' AEA, Pap, Proc.108, 43-47, 2018.
- [5] F. Farivar, & J. Richardson, 'Workplace digitalisation and work-nonwork satisfaction: the role of spillover social media', *Behaviour and Information Technology* 40(2):1-12, DOI: 10.1080/0144929X.2020.1723702, 2020.
- [6] <https://english.newstracklive.com/news/central-govt-provides-statistics-of-suicide-cases-due-to-unemployment-in-india-mc23-nu764-ta322-1210958-1.html> (Last accessed on 29 January 2022).
- [7] <https://www.tpximpact.com> (Last accessed on 29 January 2022).
- [8] L. L. Singh, T. Tiwari and A. L. Singh, 'Information Technology Induced Stress and Human Performance- A Critical Review', *Journal of Indian Academy of Applied Psychology*, 342(2), 241-249, 2008.
- [9] M. Arntz, T. Gregory, & U. Zierahn, 'The Risk of Automation for Jobs in OECD Countries, A Comparative Analysis' <https://doi.org/10.1787/5jlz9h56dvq7-en> OECD Social, Employment and Migration Working paper No. 189, OECD Publishing, 2016.
- [10] Richter, Christoph, and Heidrun Allert. *Critical Incidents as a Participatory Research Approach for Transformative Cultural Practices*. Singapore: UNITWIN - Second Yearbook on Arts Education Research for Cultural Diversity and Sustainable Development. [Google Scholar], 2019.
- [11] P. C. Patel, S. Devaraj, M. J. Hicks, E. J. Wornell. 'County-level job automation risk and health: Evidence from the United States'. *Soc Sci Med*. 202:54-60. DOI: 10.1016/j.socscimed.2018.02.025. Epub 2018 Feb 24. PMID: 29510302, 2018.