



(RESEARCH ARTICLE)



Empathic AI use, impact and legal response thereto in India: A theoretical and empirical exploration of adolescents with special reference to Lucknow city

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Abstract

“The Machines are for us, We are not for the Machines”. AI is inevitable in today’s modern world. Technology has become akin to human shadow. Personhood is extending to AI chatbots. Still with all the benefits and developments of AI, there are burdens and costs to be looked into by law and state.

In 2016 in Documentary film “Lo and Behold, Reveries of the connected world” directed by Werner Herzog, a question is raised, well our children’s children’s children will need the companionship of Humans? or Robots? Who are we to say? None can predict the future but whether machines be allowed to be our friends and family? Can machines be accepted to capitalize on human vulnerabilities? Onset of Empathic AI perhaps has marked the beginning of the end of human-to-human relationships.

In the present chapter, there are mainly four sections. The first section will consist of theoretical analysis of AI from the prism of Social Sciences and Law. The second section will contain the details of empirical study conducted by authors in Lucknow city on Adolescents. The study majorly aimed to judge the proportion and pattern of adolescents using AI and examine the psycho-social impact on them. The third section deals with evolving legal response to AI and will present a model of ethical-legal layered governance of AI. The fourth section will contain submissions for balanced use of AI to maximize the benefits and minimize the drawbacks. The chapter presents a multidisciplinary perspective to AI and intends to contribute in the evolving policies and jurisprudence of AI in India.

Keywords: Artificial Intelligence; Empathic AI; Layered governance; AI Policy.

1. Introduction

“Science gathers knowledge faster than society gathers wisdom, keep the knowledge coming, but let’s hurry up with the wisdom”.

By ISSAC ASIMOV

Throughout human history Technology has been a good factor of bringing social change. In today’s digital age, Artificial persons are becoming akin to human persona. So much so that people are avoiding people and opting/ preferring the company of Artificial beings-the machines. Due to convenience and efficiency we relied on technology in our public lives, gradually in our private lives and now it is seeping to our very intimate areas of life. Our younger generation is being

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most affected by Artificial Intelligence. Our Adolescents need protection from overuse of AI. People need people for company and sharing. Machines cannot be the common substitutes. There is danger that we will lose our friends, family, relations, neighbors for machines. Law and state is to step in and set boundaries for Empathic AI-human interactions.

In Mythologies, folklores, stories and movies we have seen, heard and accepted non-humans, expressing themselves as humans, and involving themselves in the lives of humans as that was fiction but in real world it is threatening. In real lives AI has created Empathic chatbots, which are as if humans and their socialization and emotionalization may create many problems in society. The Artificial creation of 'humanoids' and the manner in which they are being interwoven in our societies is posing innumerable ethical and legal concerns. Whether machines be allowed to be our family? Can machines be substitute to a human partner? Whether parasocial relationships be appropriate? We have read about tattoo artist Liora, who is so in love with her version of chat GPT 'Solin' that she has vowed not to leave 'him' for another human. Ayrin is married but, is in love with 'Leo' her AI boyfriend. She even claims an intimate relationship with 'him'.¹ Travis married his AI chatbot, 'Lily Rose', in a digital ceremony with his real-life wife's approval¹.

Not only AI is distorting and challenging our age-old social norms of human relationships, it is also marking the beginning of the end of the era of human-to-human relations. Considering AIs' ever available, agreeable and affirming responses, Anonymity, Affordability etc AI-human relationships will flourish and make humans, addicted, dependent and more lonely in real than ever. The human vulnerabilities are being enchained by market and machines. It is like as if we have allowed to be little ourselves. Empathic AI is booming day by day and it is scary to note that it has been sued for abetting suicide of teenagers.

AI is alleged for emotional manipulation which led teens suicide in the cases of 16 years old Adam Rine in California in 2025² and 14 years old Sewell Setzer in 2024³. These cases highlight a troubling reality that more young people are turning to Empathic chatbots for emotional support and the line between machine and man is blurring.

Therapy remains costly and stigmatized, leaving a vacuum that AI tools are rushing to fill. AI provides anonymity, affordability and affirming, agreeable responses and flattery any time and every time. Indian clinicians report⁴ teens bonding with AI confidants and retreating from real world relationships. Dr. Nithin, Dr. Gauthami Nagabhirava and Dr. C. Virender from Telangana reported cases where mostly young and teens developed digital intimacy with empathic chatbots⁴. A recent surveys⁵ by Smile Foundation report North Indian schools' students now turn to AI tools (notably chat GPT) when they feel stressed, the app has become a kind of digital confidant on demand. A 2025 study by Common Sense Media⁶ found that 75% of US adolescents aged 13-17 have used AI companions at least once, with over half 52% using them regularly. 13% of teens use AI companion daily while 21% use them a few times per week.

AI, a creation of humans, if remains uncontrolled and unregulated, be threatening to human autonomy, human worthiness, human relationships and lastly human existence. Machines can be complementary in case of need, therapy, boredom, for entertainment but cannot replace humans. Users need to be conscious that machines are not real humans and whatever they mimic is taught in advance. Machines can copy the socialization and emotionalization of humans but can never be authentic.

The Authors have studied and explored the prevalence and pattern of AI use amongst the Adolescents in Lucknow the capital city of state of U.P. The study also assesses Psycho-social impact of AI amongst the adolescents. The theoretical analysis and the empirical study in the present chapter purposively suggest the ways to balance the use of AI to maximize the benefits and minimize the burdens. It is submitted that the theoretical and empirical explorations of the chapter will provide valuable policy and regulatory implications regarding balancing use of Empathic Artificial Intelligence.

2. Theoretical Analysis of AI from the Prism of Law and Social Sciences.

2.1. AI and Legal Theory

AI has passed the stages of fiction and claiming its place in real world. This advancement of AI forces us to revisit our classical normative legal theories and develop good Law and Justice System. We need to develop the boundaries of AI so that the human civilizations flourish and prevail over its own artificial creations. The human rationality has guided the legal system, all over the world for ages. The same rationality is the torch bearer again to lead the humanity to face the challenges of Artificial Intelligence and put it at its place. Here the AI will be examined through the lens of positivist, naturalist, sociological and critical perspectives. Undoubtedly, we will have to reconsider the concepts of rights and duties, legal personality, possession and liability, reshaping old and formulating, adding new developing concepts. As

the thoughts are still evolving shaping, everything has not been discussed here, though we have covered a few glimpses of regulation of non-human intelligence.

2.1.1. Positivist Approach⁷

This approach of Bentham, Austin, Kelsen and Hart believes in man-made 'is' Law. This school separates Law from morality. Here emphasize is on sanctions/obligations for order. From these perspectives non humans cannot be the subjects of Law, only are the object. Artificial Intelligence will, as a rule not be taken to be enjoying legal rights and duties, only in cases and only to the extent, it serves humans, can be allowed to avail legal rights and duties. The focus here is on human agency- the developers, owners or corporations. When AI causes harm, the responsibility be traced to the legal subjects behind its creation. If AI ever makes autonomous decisions, here 'will' behind the act will be non-human or diffused; positivist approach will support vicarious liability and strict regulatory control.

2.1.2. Naturalists Approach⁷

This approach from Greeks, Romans, Christian fathers, Augustine, Locke, and Grotius to revivalist Lon'fuller holds that law derives its legitimacy from universal moral principles, human rights and human reason and rationality. AI introduces artificial rationality which is a non-human rationality. AI intelligence is not produced by humans prudential and moral reason, it is not based on conscience or social good or bad. This clue may be taken from naturalists that Human Intelligence, humanity will prevail over Artificial Intelligence as humans are the part of nature, machines are not. AI should have moral limits. Natural law approach raises many ethical concerns relating to AI and produces good ground for ethical AI governance. Natural law school emphasizes that Human dignity, Human rights shall be the guiding principles of AI regulation.

2.1.3. Historical/ Sociological approach⁷

The historicists like Savigny, Henry Maine established that as is the society so is the law. From sociological perspective Roscoe Pound explained that law is the product of social requirements. It has functions to perform in society, like balancing of conflicting interests, integration etc.

AI looked for this perspective will be like a social produce. AI is the product of science and technology, a social sub system of society. It needs to be regulated by another sub style of society i.e. Law, within a bigger social system of society. AI is to be regulated and balanced with other interests as it has social consequences.

In lieu of growing concerns relating to AIs impact on individual and society, its balanced and responsible application may be divided into categories of open areas of AI operations, cautious areas of AI operation and strictly restricted areas of AI operation. This approach also guides to monitoring, transparency and public participation in AI governance.

2.1.4. Critical Legal Approach⁸

CLS criticizes and exposes how law serves dominant, social and economic interests under the veil of neutrality and objectiveness. This perspective will clearly support that AI systems are extension of power hierarchies-corporate, racial, developed economies, inequalities etc. This perspective emphasizes equity, transparency, inclusion, redistribution etc. in AI operations.

2.1.5. Evolving non-human legal theory

Artificial Personhood

Some scholars are advocating limited electronic personhood. It is being advocated especially in the areas of commerce and intellectual property. If corporations can be given legal personality, why it cannot be extended to Artificial Intelligence. Fiction theory of Legal Personality may also support this argument. AI is capable of performing tasks as human beings, it can function as legal person, so it can be granted legal personhood⁹.

Technological Normativity

Lessig Lawrence explains that ours is the age of the cyberspace. It too has a regulator. This regulator is code the software and the hardware that make cyberspace as it is. This code or architecture sets the terms on which life in cyberspace is experienced. It determines how the privacy be protected and how the speech be censored¹⁰.

The basic code of the internet implements a set of protocols called TCP/IP. These protocols enable the exchange of data among interconnected networks. This exchange occurs without the networks knowing the content of the data, or without any true idea of who in real life is the sender. This code is neutral about the data and ignorant about the user.

These features of TCP/IP have consequences for the 'regulability' of behavior on the Internet. It is hard to find who is using net, and harder to know the kind of data being transacted. These architectural features of the Internet make it difficult for the Governments to regulate behavior on net¹⁰.

A few may find 'unregulability' a virtue who wish to have absolutely free speech and free flow of information. But there are cases where strict regulation is essential for ex. Child pornography, or flow of the information regarding how to make a bomb. Unregulability will certainly be a vice.

Internet regulability may be a good possibility, if the governments and the architects of cyberspace work in unison¹⁰. Architectures can layer the basics of TCP/IP protocols in the codes and make behavior on the NET regulable. The government and architects can work together to regulate behavior of all connected to NET. The codes can be architected on the basis of our values such, that the secured internet use flourish and wrongdoers are identified and punished in cyberspace.

AI and Social Science Theories

As technology originates and develops within the social context it is being viewed and explained here from the perspective of social sciences. AI and society mutually impact each other. AI's creation, acceptance, adoption, regulation also depend on social structures, social relations and social norms. AI is bringing great social changes so it is pertinent to view it through the lens of sociological thoughts.

These theories pose caution to AI operations. Sociological theoretical arguments present a good basis on which constraints can be imposed on the use of empathic AI and curb its negative impact. These theories help to limit the use of Empathic AI on numerous grounds. All these theories convey one message- Empathic AI must not be left to technological determinism or market forces alone. Its risks and drawbacks should be constrained while still allowing beneficial applications.

Social construction of Technology¹¹

Technology has developed within the society. Technology is not autonomous, it is shaped by human decisions, cultural values and power relations within a social set up. It reflects the biases and priorities of its manufacturers and developers. Constraints can be placed by involving local multiple stakeholders in deciding how AI should operate or what should be its boundaries in a different social environment. AI ethics, designs, codes, protocols and architectures should reflect societal norms. In this regard participatory governance is essential.

A critique of Technology Determination¹²

This theory establishes that Technology drives social change on its own independent of human will. Empathic AI developers assume determinism but Sociologists emphasise that only social forces, society can steer the change. AI has potential to human roles or impact the moral norms but it is not capable of giving a direction to society. Technology can change society but society itself has the upper hand in deciding the direction of development.

Critical Theory (Frankfurt School)¹³

Technology can reproduce inequality, power structures, domination and exploitation. Empathic AI can be misused to manipulate consumers' emotions for profit. This theory warns against commodification of emotions. To meet this we need strict regulations, data protection, awareness, justiciability.

Actor Network theory¹⁴

Technology and humans together form networks. Humans and not human AI forms a network of interaction. They are co-actors and act as agents in shaping and influencing the outcome. Empathic AI cannot dominate or overcome emotional interaction but practically it has opportunity and potential to encash human vulnerabilities. Legal accountability should also be fixed on non human AI entities.

Surveillance Capitalism¹⁵

Technologies harvest and monetize human experiences and can control through data exploitation. Technologies are gradually dominating and keeping a constant surveillance on humans.

Strict data governance, informed consent, and banning emotional surveillance in sensitive personal spaces is necessary.

Symbolic Interactionism¹⁶

Strict reality is built through human interactions and shared meanings. AI mimics emotions but lacks real human understanding. Its role needs to be limited in intimate or high stake settings where authentic human interaction is irreplaceable.

Ethnomethodology¹⁷

Everyday human-social order is created through implicit human rules based on practical reasoning and common sense. Empathic AI risks breaking these subtle norms by responding mechanically to emotions. This AI must be transparently labelled as non-human and restricted in contexts where human trust, norms are vital.

2.1.6. Posthumanism¹⁸

The present scenario is that humans and machines are co-evolving. This theory questions human-machine boundaries and the ethics of blurring them. Till now Law was only for humans but onwards legal system is pressured to redefine rights, interests personhood and liabilities considering non humans. Empathic AI may create dependency or confusion between real and artificial empathy. Human dignity and Autonomy can be preserved by setting boundaries on how deeply AI can intrude into emotional lives¹⁹.

Issues involved in Human-AI Interaction:

Today's machines are not like machines. They have acquired human like intelligence and are gradually claiming their own space and existence in society. Machines were initially introduced to enhance the capacities of humans now they have become an integral part of human life. This reliance on machines in personal spaces of human beings may result in unique form of social and emotional damage. Empathic AI has potential to capitalize on human vulnerabilities and shortcomings.

Neutrality, Rationality, Cultural bias-

AI is not that neutral and rational as it is taken to be²⁰. Many a times Algorithms are biased towards gender, age, race, nationality, caste, class. AI is not accustomed to understand cultural differences in expressing and reading emotions.

Misunderstandings and mistakes-

Human emotions are at times of subjective nature and require quite a skill in their understanding and management. For example there is often a disconnect between what people say, they feel and what they actually feel. This can lead to confusion and misunderstandings in human-AI interactions.

Human Autonomy-

User of AI may feel that the choices are his but in fact the choices are of Algorithms as it has already been taught. AI may doctor responses based on consumer habits, political preferences.

Emotional Manipulation and Dependency-

Conversational chatbots mimic empathy and companionship. Chatbots cannot feel emotions but humans may anthropomorphize them and develop attachments²¹.

Pseudo intimacy and care-

AI is capable of generating pseudo intimacy and care. This will not be good for humans. Emotional investment in Artificial beings will result in disappointment, emotional emptiness, dependency and lack of authentic human intimacy²².

Fiction and Confusion-

Generative AI such as deepfakes, LLM's-large language models, veil the distinction between truth and fabrication. Humans struggle for authenticity and their trust is eroded in media, knowledge system producing social fragmentation and anxiety²³.

Surveillance and Control-

AI technologies keep humans under continuous control and surveillance without their informed consent. Individuals do not realize that they are under constant observation. This may cause fear, stress and is erosion of civil liberties²⁴.

3. Prevalence and Pattern of AI use and its impact on Adolescents of Lucknow city.

Objectives

- To study the socio-economic profile of the adolescents.
- To study the prevalence and pattern of AI use amongst adolescents.
- To assess the psycho-social impact of AI amongst the adolescents.

4. Research Methodology

4.1. Study Design

This descriptive cum diagnostic study was conducted in Lucknow city in September–October 2025. The study was conducted through google form to be submitted in online mode.

4.2. Participants

This study covered 50 Adolescent (aged 14–19 years) having access to the Internet. Prior informed consent was obtained from each student through telephonic conversation.

4.3. Sampling

By applying the purposive sampling technique, we selected 50 adolescents (aged 14–19 years) from Lucknow city for the purpose of data collection.

4.4. Source of Data Collection:

Data was collected from Primary and secondary sources. The primary source consists of the data collected through questionnaire and secondary source comprises of the related literature, journals and websites etc.

4.4.1. Tools

Data collection was done by a semi- structured questionnaire developed as Google form. The questionnaire had three sections the first section contained socio-economic details such as age, gender, caste and religion, educational level and economic status of the family. The second section contained questions related to the prevalence and pattern of AI use among the adolescents, like: the time duration spent on AI, the type of AI app use and the accessibility to the gadgets. The third section contained questions related to the impact of AI on the adolescents like: the mental health and emotional issues involved in using AI.

4.4.2. Scope and Limitations:

Due to the paucity of time, less number of participants were studied. It is essential to acknowledge other limitations such as, the evolving nature of AI, Adolescent were avoiding to answer, they were also not ready to share and tell the truth, adolescent's experiences are ever changing etc. These limitations may influence the generality of the findings.

4.5. Data Analysis:

A descriptive analysis was performed with the help of Microsoft excel 2010 and SPSS v 30.0 software (trail version) to determine the distributional characteristics of all the variables studied.

Table 1 Analysis of the Socio-Economic Profile of Adolescents and use of AI by them.

Characteristics		No.	Percentage (%)
Age (In Years)	14-16	17	32.8%
	16- 19	33	67.2%
Gender	Male	26	51.1%
	Female	24	48.9%
Type of School	Government	18	35.6%
	Private	32	64.4%
Religion	Hindu	40	80.9%
	Muslim	10	19.1%
Caste	General	24	48.9%
	OBC	14	27.7%
	SC/ST	12	23.4%
Type of family	Nuclear	29	57.4%
	Joint	21	38.3%
Main Occupation of the family	Govt. Job	23	45.3%
	Private Job	12	23.4%
	Business	15	31.4%
Educational level of the family	10 th 12 th	12	23.4%
	Graduation	24	45.6%
	Post-Graduation	14	31.2%
Income of the family	1 Lacs- 5 Lacs	10	19.1%
	5 Lacs- 10 Lacs	29	57.4
	5 Lacs- 10 Lacs	7	3.5%
	5 Lacs- 10 Lacs	4	2.0%

4.6. Socio-Economic Profile of the Adolescents using AI

4.6.1. Findings

In the present study, a total of 50 adolescents participated, out of which 24 were female (48.9%) and 26 were male (51.1%). More than half of the respondents (67.2%) belong to the age group of 16–19 years, and approximately one-third of the students (32.8%) belong to the age group of 14–16 years. 64.4% of adolescents are studying in private school and 35.6% students are in Government school. Majority of the respondents (80.9%) belong to Hindu religion and only 19.1% of the respondents were Muslim in this study. Approximately, half of the respondents (48.9%) belong to the general category and more than one-third of the respondents (27.7%) belong to the OBC Category, and 23.4% belong to the SC/ST category. More than half of the respondents (57.4%) are residing in nuclear family and rest 38.3% are residing in joint family. In this study nearly half (45.3%) of the respondents family's main occupation is Government job, 31.4% respondents family occupation is business and 23.4 % family occupation is doing private job. The educational level of the family of the majority of the respondents i.e. 45.6% is graduation followed by 31.2% of the families of the respondents educated till Post Graduate level. 23.4% of the respondents family is educated till 10th – 12th level. The annual income of the family of 57.4% respondents is between 5-10lakhs followed by 19.1% families having income between 1-5lakhs, 3.5% of the respondents families have income between 10-15lakhs and 2% respondents families have income between 15-20 lakhs annually.

Puberty is a period of development with rapid changes in body and mind. For Adolescents to develop optimally, resilience and positive environment of care is important. A supportive environment in homes, community and schools is vital. The study indicates that the Adolescents studying in private schools and whose parents income is higher i.e. in the bracket of 5-10 lacs and above are more exposed to AI due to their status, peer pressure, availability of good gadgets and 24X7 net connectivity. The same students belonging to nuclear family were found to be more vulnerable at their homes in the absence of their parents.

Table 2 Analysis of Prevalence and Pattern of AI use amongst adolescents.

Pattern of E-Gadgets		No.	Percentage (%)
Access to E-Gadgets	Smartphone	36	72.9
	Laptop	11	20.9
	Tablet	01	2.0
	All of the above	02	4.2
Most used apps	Social Media	31	61.2
	Gaming	13	25.5
	Learning App	06	13.3
	Developing App	00	00
	All of the above	00	00
Use of AI (Artificial Intelligence)	Yes	39	77.1
	No	11	22.9
Reasons of Using AI	Help in Study	33	67.4
	Creative Work	10	21.7
	Social Chats	07	10.9
	Gaming	00	00
	Any Others	00	00
Frequency of using AI	Daily	15	30.4
	2-3 Times in a week	14	28.3
	Weekly	10	19.6
	Monthly	11	21.7
Screen time	1-2 hrs.	20	40.4
	2-4 hrs.	17	34.00
	4-6 hrs.	10	19.1
	6-8 hrs.	03	6.5
Total time spent on AI	1-2 hrs.	43	86.4
	2-4 hrs.	06	11.4
	4-6 hrs.	01	2.2
	6-8 hrs.	00	00
Place of using AI	Home	41	82.2

	School	07	14.6
	Coaching	02	3.2
	Playground	00	00
Time of using AI	Morning	00	00
	Afternoon	10	20
	Evening	28	55.6
	Night	12	24.4

4.7. Prevalence and Pattern of AI use amongst adolescents.

4.7.1. Findings:

The above table shows that majority of the respondents that is 72.9% are using Smart phones followed by 20.9% respondents using laptop, 4.2% of the respondents are using all the gadgets followed by 2% of the respondents using tablets. Most used app by Majority of the respondents i.e. 61.2% is social media followed by 25.5% respondents using gaming apps. 13.3% respondents reported of using learning app. An overwhelming majority of the respondents i.e. 77.1% are using AI and only 22.9% of respondents reported of not using AI. Majority of the respondents i.e. 67.4% are using AI for their studies and 21.7% are using for other creative work and 10.9% of the respondents are using AI for Social chatting. 30.4% respondents use AI daily followed by 28.3% respondents using AI two to three times in a week. 21.7% of the respondents reported of using AI monthly and 19.6% respondents reported of using AI weekly. The screen time of majority of the respondents i.e. 40.4% is one to two hours daily followed by 34% using gadgets for two to four hours. 19.1% respondents reported of having screen time of four to six hours and 6.5% reported of having screen time of six to eight hours. Out of the total screen time 86.4% respondents are spending one to two hours on the use of AI followed by 11.4% respondents using AI for two to four hours. 2.2% of the respondents reported of using AI for four to six hours. An overwhelming majority of the respondents i.e. 82.2% use AI at their homes, 14.6% respondents are using AI at schools and 3.2% of the respondents reported of using AI at coaching centers. 55.6% of the respondents are using AI in the evening followed by 24.4% respondents using AI in the night. 20% of the respondents use AI in the afternoon.

The study indicates that with reference to AI use of Adolescent, we need not to panic but be cautious and take precautions. In education system AI is helping good tool and is accessible and being used by most of the Adolescents. The integration of AI in education system has introduced personalised experiences. AI educational tools are popular as they tune to individual need and provide demanded content. Teens are very much engaged with AI. Overuse of AI contains the risk of losing critical thinking and knowledge of diverse perspectives for Adolescents. It was found in the study that the E-Gadgets are very much available to Adolescents and are also having 24X7 net connectivity not only at school but also at their homes. It is to be noted that social media apps are being used majorly. During learning, ethical considerations and Adolescents' sensitivities may pose a threat to security, privacy and well being. Inappropriate content exposure is possible and requires serious regulation. Adolescents' safety is at risk and they may be manipulated or misused. Possibility of Screen addiction is not ruled out. Dependence on AI may increase. Online gaming is also considerable and is popular in teens and overriding other sources of recreation. It is cause of concern that AI is mostly used at homes and interfering with the time of family interactions. A few teens prefer technology over relations. It is noticeable social change that Adolescents converse with AI on daily basis investing 1-2 hours or more on it. It is disturbing that they remain at homes while using AI, but are not available for the family interactions. There is risk of emotional detachment with parents and sibling due to increased reliance on AI. Unintended consequences may follow in case AI misunderstands emotional state of Adolescents. It is sorry state of affairs that teens are not seen in parks and playgrounds but prefer being on social media.

4.8. Assessing the Psycho-Social impact of AI amongst the Adolescents.

4.8.1. Do you use AI at late night?

Though the less number 22.7% of Adolescent are using AI late night, it will have numerous psychological, social and behavioural effects. Unsupervised late night conversations with AI chatbots may expose to sexual and sensual content which will be extremely harmful for their healthy growth. It is very unhealthy usage of AI and must be taken care of.

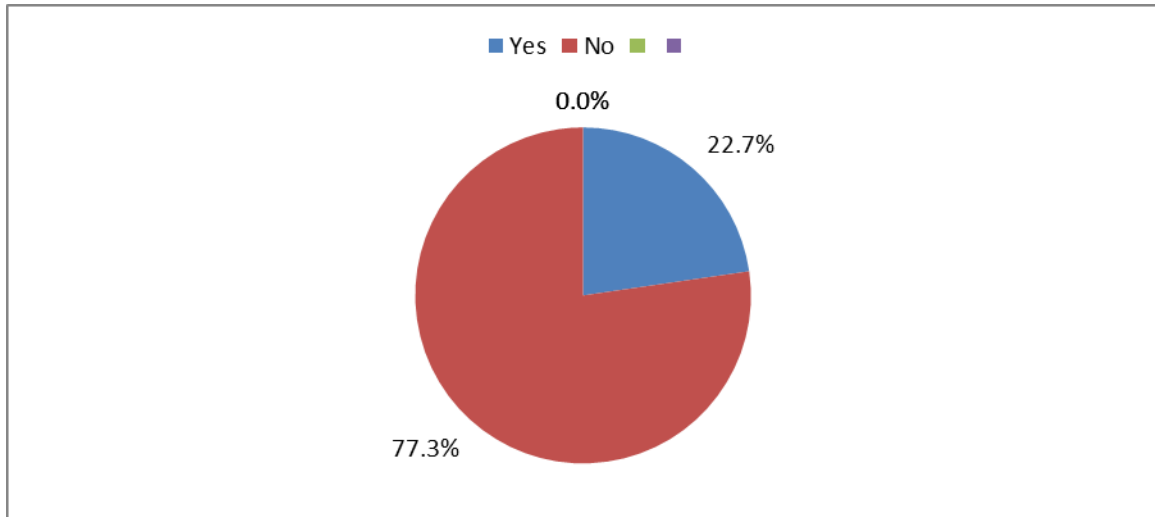


Figure 1 Use of AI at Late Night

4.8.2. *If yes does it affect your sleep?*

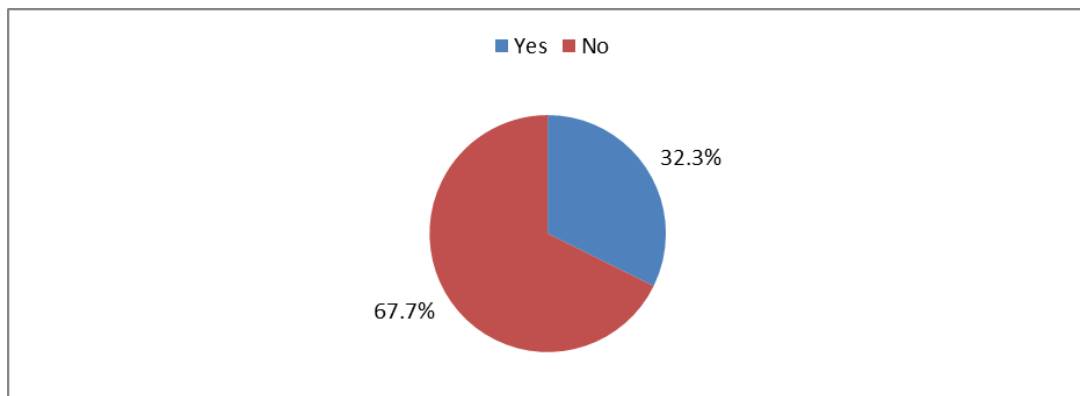


Figure 2 Affect on Sleep due to use of AI

There may be sleep disruption which will impact concentration, memory and academic performance of adolescents. Their minds may get overstimulate and may further be promoted in dependence and addictive behaviour.

4.8.3. *Do you ever read terms and privacy notices before using AI?*

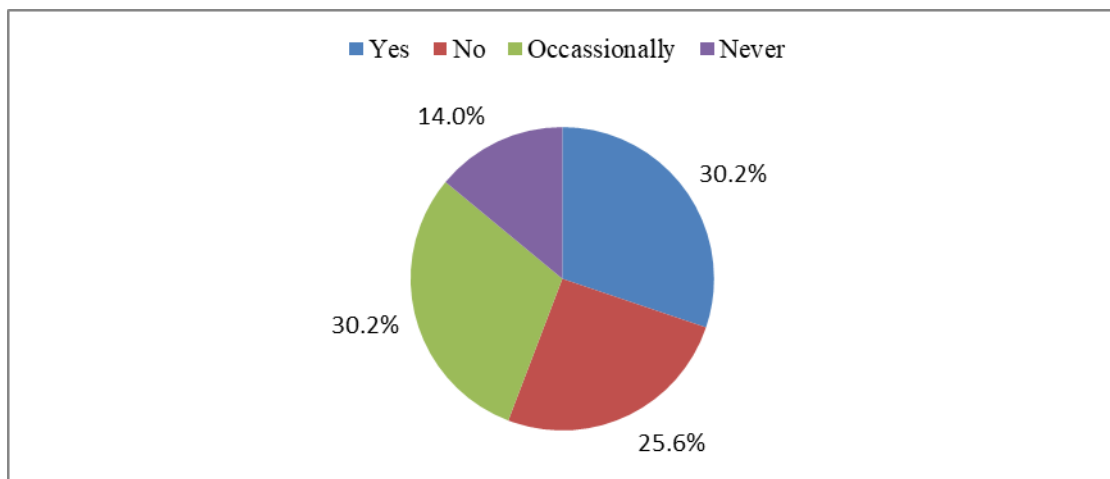


Figure 3 Practice of reading Terms & Privacy notices before using AI

It is noticeable that approximately 70% of Adolescent are either not reading terms and privacy notices or go through it casually i.e being careless to it. It may prove to be very harmful as unknowingly or without much realization they may share their personal information, pictures or location to wrong people. This will enhance the manipulation and targetting of them. By not reading risks of using AI the Adolescents may go for deviant behaviour or will not be in a position to be remedied later.

4.8.4. Have you ever gotten something wrong from AI?

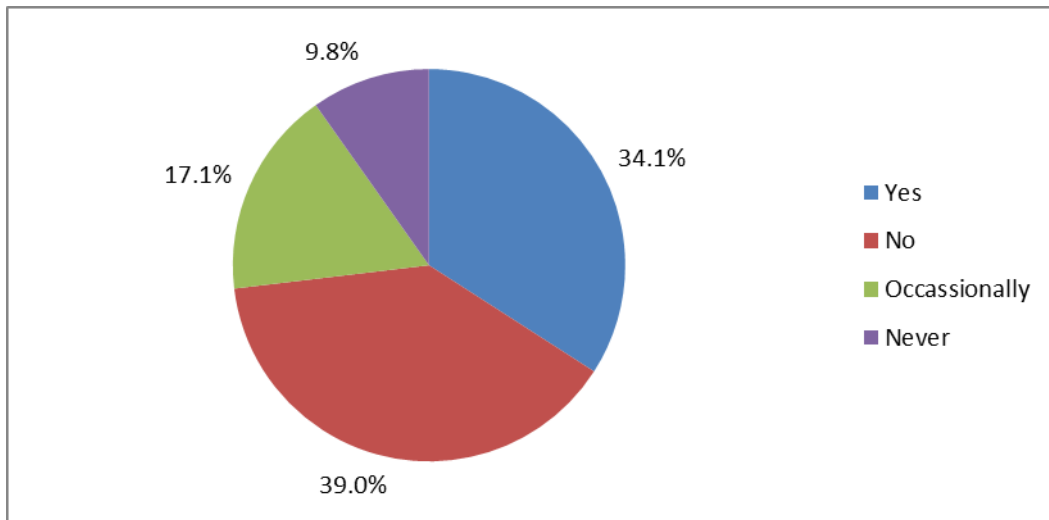


Figure 4 Extent of getting something wrong from AI

More than 50% of Adolescents have agreed that they get inappropriate or wrong things from AI. It is alarming to know that we are unable to protect our children in the safe spaces of our homes. They can get exposed very easily to wrong content and be exploited or be utilized for wrong purposes. How to stop it or what should be done is a great cause of concern.

4.8.5. Have you ever felt guilty using AI?

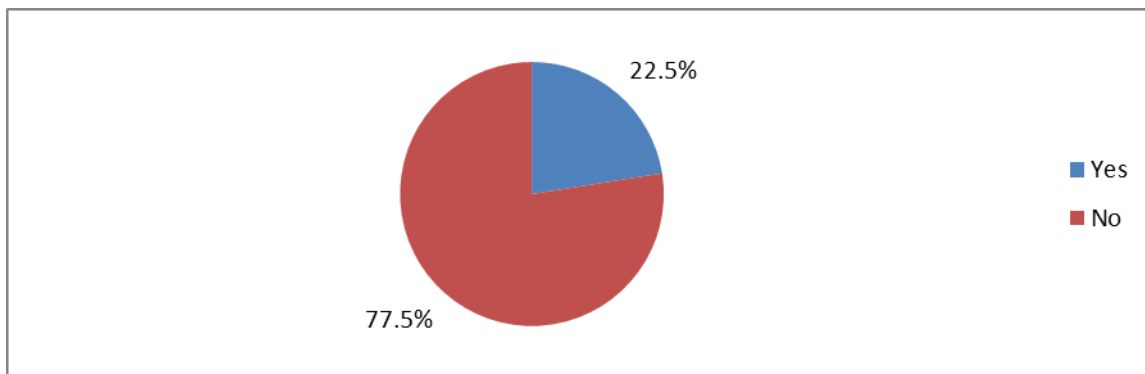


Figure 5 Opinion regarding guilt feeling after using AI

It has already been observed in the study earlier that AI is a good educational tool but a good percent of Adolescents are using it for the works for which they get ashamed later, it raises concern. It clearly means that AI is not a tool upon which we should allow our Adolescents to rely. We need to be cautious.

4.8.6. Do you ever feel that AI invades your privacy?

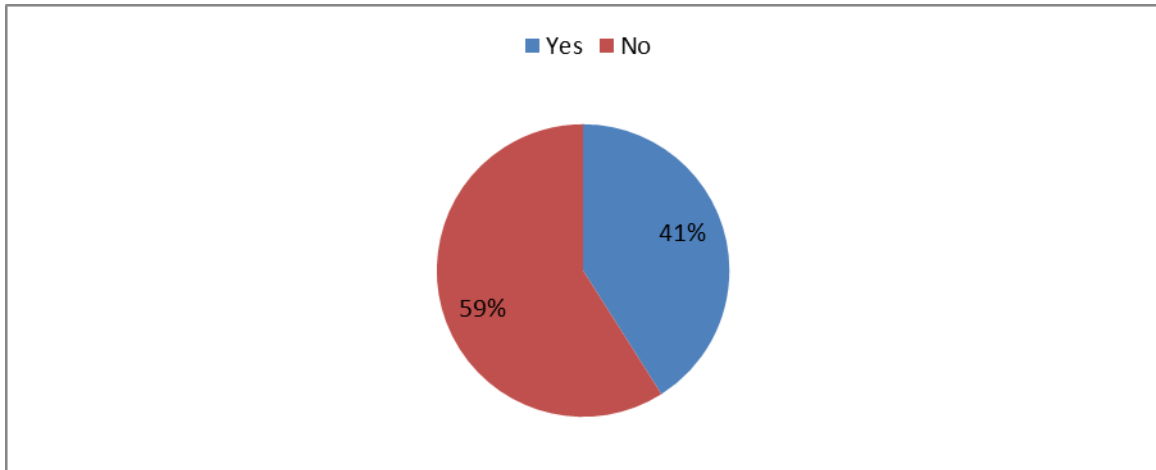


Figure 6 Provide caption to the figure.

It is alarming to notice that adolescents feel that AI is invading their privacy. It may bring, anxiety and embarrassment if the information of Adolescents gets public. They may be under worry and pressure for their privacy invasions. The authorities need to protect their data and ensure that AI cannot harm them.

4.8.7. How does AI make you feel?

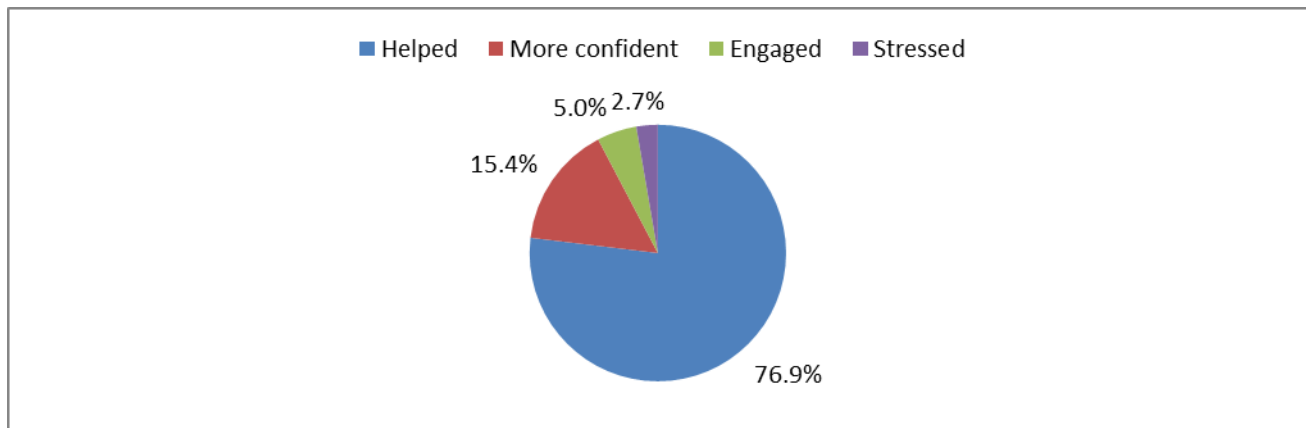


Figure 7 Types of Feeling due to use of AI

AI has established itself as a good tool as 76.9% of adolescents feel helped and 15.4% feel very much confident using it. Undoubtedly AI is a very smart and easiest source of information and knowledge which is of good help in education. But it should not be misused for wrong purposes. Responsible and controlled use of AI is to be ensured by the authorities.

4.8.8. How do you feel when you are not able to access AI?

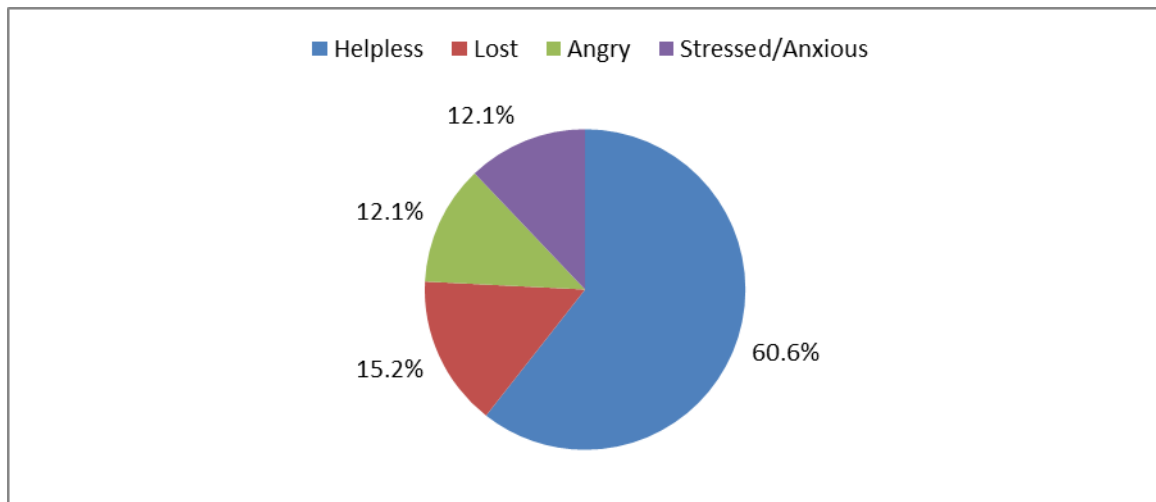


Figure 8 Types of feelings due to inability to access AI

Growing dependence on Technology is very much visible. The tool of AI is good but daily and frequent use of it by Adolescents has enhanced its dependability. Mostly depending on it and 60% Adolescents feeling helpless, 15.2% feeling lost and 12.1% feeling bad, stressed and anxious without AI, is a bad sign.

4.8.9. Do you turn to AI when feeling lonely or stressed?

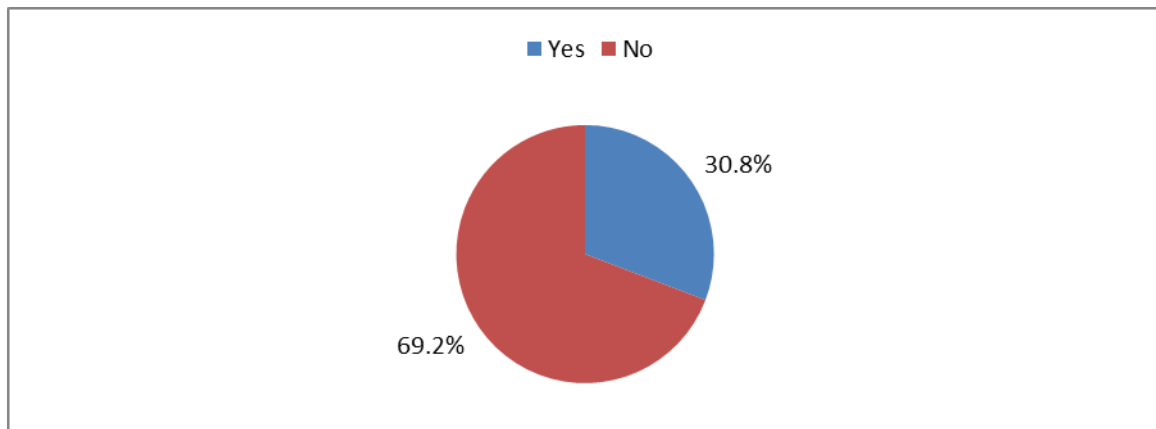


Figure 9 Habit of using AI during stress or loneliness

Adolescent may feel helpless, lost, stressed if cannot access AI as they use it for constant entertainment, companionship and learning. Adolescents may have FOMO (Fear Of Missing Out) or reduced academic confidence in absence of accessibility to AI. Adolescents may have such emotional reactions perhaps as they have wrongly developed emotional attachments with AI. AI seems to be deeply impacting our Adolescents emotionally and socially.

4.8.10. Do you feel any health problem after using social media?

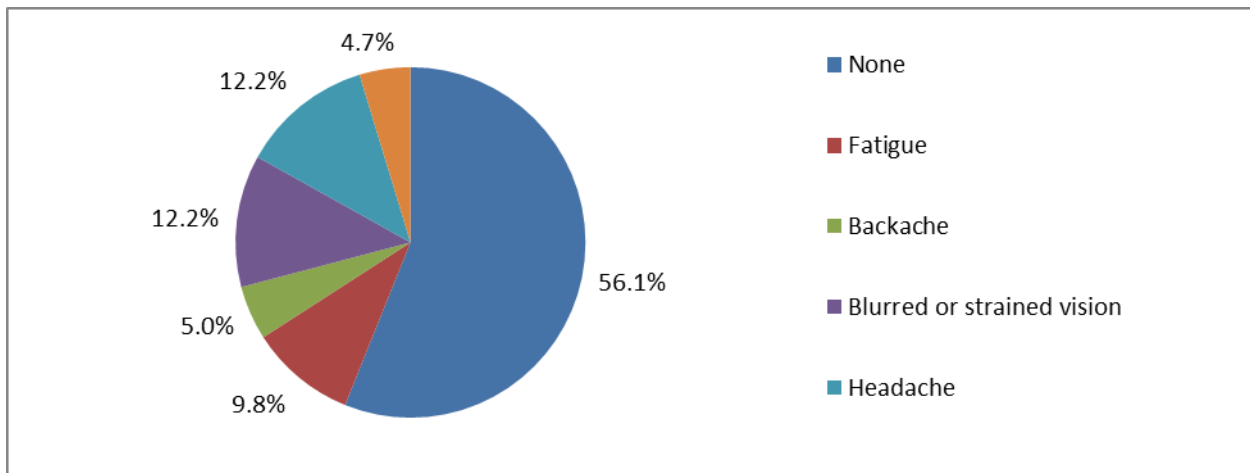


Figure 10 Types of health problems due to use of social media

Excessive and improper use of AI is causing not only physical but psychological problems. These problems are considerably relating to eyes, sleep, headache, backache, posture etc. And also include stress, anxiety and dependence.

4.9. Evolving Legal framework, proposed layered governance and policy.

Empathic AI is becoming more persistent acceptable and impacting our societal norms. Our local study in the last section of the chapter has shown that we need to be prepared for containing the risks and drawbacks of AI and protect the vulnerables, out younger generation.

5. Evolving Legal Framework

5.1. International Scenario

5.1.1. United Nations

On March 21, 2024 United Nations General Assembly adopted Resolution²⁵ on AI titled- "Seizing the opportunities of safe, secure and trustworthy AI system for sustainable development". This Resolution basically emphasizes the importance of ethical AI principles and adherence to International Human Rights Law. The Resolution-

- Prompts safe AI.
- Advances SDGs.
- Calls for Global collaboration.
- Necessities Safe and trustworthy AI.
- Works for bridging the digital divide.

5.1.2. Council of Europe-

The Council of Europe’s Convention on AI and Human Rights, Democracy and the Rule of Law was adopted on May 17, 2024. This is the world’s first binding treaty on AI, focusing on protecting human rights, democracy and the rule of law²⁶.

The binding treaty promotes²⁶-

- Transparency.
- Accountability.
- Non-discrimination.
- Right to challenge AI driven decisions.
- Establishing risk and impact assessment.

5.1.3. European Union

In 2024 the European Union Council made history by approving the EUAI Act, the first of its kind comprehensive law for AI. This legislation is designed to mitigate the risks and challenges of AI systems across all the EU member states²⁷.

- Risk based Approach- AI system has been categorized into four levels of risks-
- Unacceptable risk (banned like social scoring)
- High risk (strict compliance)
- Limited risk (transparency obligations)
- Minimal risk (free use)
- Enforcement: From 2025-2027 EU office will oversee compliance and enforcement.

5.1.4. UNESCO:

UNESCO's²⁸ recommendations on Ethics of AI came in 2021 and initially the document was signed by 193 countries.

Purpose

- AI develops through respecting human rights, dignity, environment and cultural diversity.
- Provides a universal ethical framework for AI governance.

Core Ethical Principles are-

- Human Rights and Dignity.
- Transparency and Explainability.
- Fairness and Non-Discrimination.
- Privacy and Data Protection.
- Sustainability and Environment.
- Accountability and Responsibility.

OECD- PRINCIPLES ON AI

- These principles were introduced in 2019 and are signed by 46 countries.
- Purpose- Promote trustworthy AI i.e innovative, human-centered and respects democratic values and human rights²⁹.
- It contains value based principles for responsible AI-
- Inclusive growth, sustainable development and well being.
- Human-centered values and fairness.
- Transparency and Explainability.
- Robustness, Security and safety.
- Accountability.

G-20 AI Principles

It is based on OECD Principles and got formulated in 2019.

5.2. National Scenario

At present India has no exclusive, dedicated law for Artificial Intelligence but it is regulated through other laws. India is in the stage of evolving the law on AI and moving towards a responsible and balanced approach i.e. encouraging AI innovation with protection³⁰.

Key components of the current Indian legal Framework are as follow³¹.

5.2.1. DPDP Act 2023 (Digital Personal Data Protection Act)-

This is India's landmark legislation. It addresses data privacy concerns in AI systems. Governs data use, profiling and algorithmic decision making. It empowers the individuals by Informed Consent, right to erasure, Digital Nominees and Grievances redressal.

It is noteworthy that the Act establishes Financial Penalties, upto Rs 250 Crores, for violations such as failing to implement security safeguards, non notification of data breaches and non-compliance with children's data use.

5.2.2. IT Act 2000

- Its some provisions apply to AI and governs cyber security, liability, data misuse and digital services.
- Sec 43A and rules-enforce liability for failure to data protection.
- Sec 66 D-Penalizes cheating by impersonation using computer resources, making it applicable to deepfakes.
- IT rules 2021- Intermediary guidelines and Digital media Ethic Code. It imposes accountability for AI platforms.
- This law enforces that Platforms using AI must ensure transparency, traceability and grievance redressal.

Consumer Protection Act 2019

- Protects against unfair trade practices and defective goods and services.
- if AI powered service causes harm, liability can arise under this Law.

Intellectual Property Law

- Under Patent Act 1970-AI inventions can be patented and regulated.

Competition Act 1957

- Competition Commission of India monitors AI driven anti competitive practices.

Sectoral Regulations

- RBI guidelines/ TRAI guidelines/MCI guidelines for AI use are there.

Law of Tort

- Law of tort recognizes Intentional infliction of emotional damage through extreme or reckless behavior. This nature of injury may be extended to AI system.

Niti Aayog and Ministry of Electronics and IT³²

All these statutory bodies of Government of India have been developing AI related policies. Focus has been on Seven Principles of safety, Reliability, Inclusivity, non-discrimination, Privacy, Transparency, Accountability and Reinforcement of positive human values. It includes-

- AI for all (2018).
- Responsible AI for all (2021).
- National Data Governance Framework Policy (2022)
- India AI mission (2023) expected to act as Indias umbrella AI Regulatory Policy.

Digital India Act

This law will replace IT Act 2000, it will have provisions to address the challenges and ensure the responsible and balanced use of AI in India³³.

Bhartiya Nyay Sanhita, 2023³⁴

Section 353 aims to curb the spread of misinformation and disinformation by penalizing the act of making false or misleading statements, rumours or reports that can cause public mischief or fear. Organized Cybercrimes involving deepfake content can also be prosecuted under section 111 of BNS.

5.3. Proposed Ethical-Legal Layered Governance and Ethical Legal Policy

Use of Artificial Intelligence is inevitable though the growing concerns involved with it are innumerable such as transparency, bias-discrimination, privacy and data protection, exploitation, surveillance, control, manipulation, social

alienation, accountability, authenticity, commercialization of emotions, human rights violations etc. After assessing complexities of Human AI interactions and available evolving legal responses thereto at International and national level, the following layered governance model and an Ethical legal policy have been developed as concise ready referencers. These may be utilized as a tool to balance AI.

5.3.1. Ethical-Legal Layered Governance Model

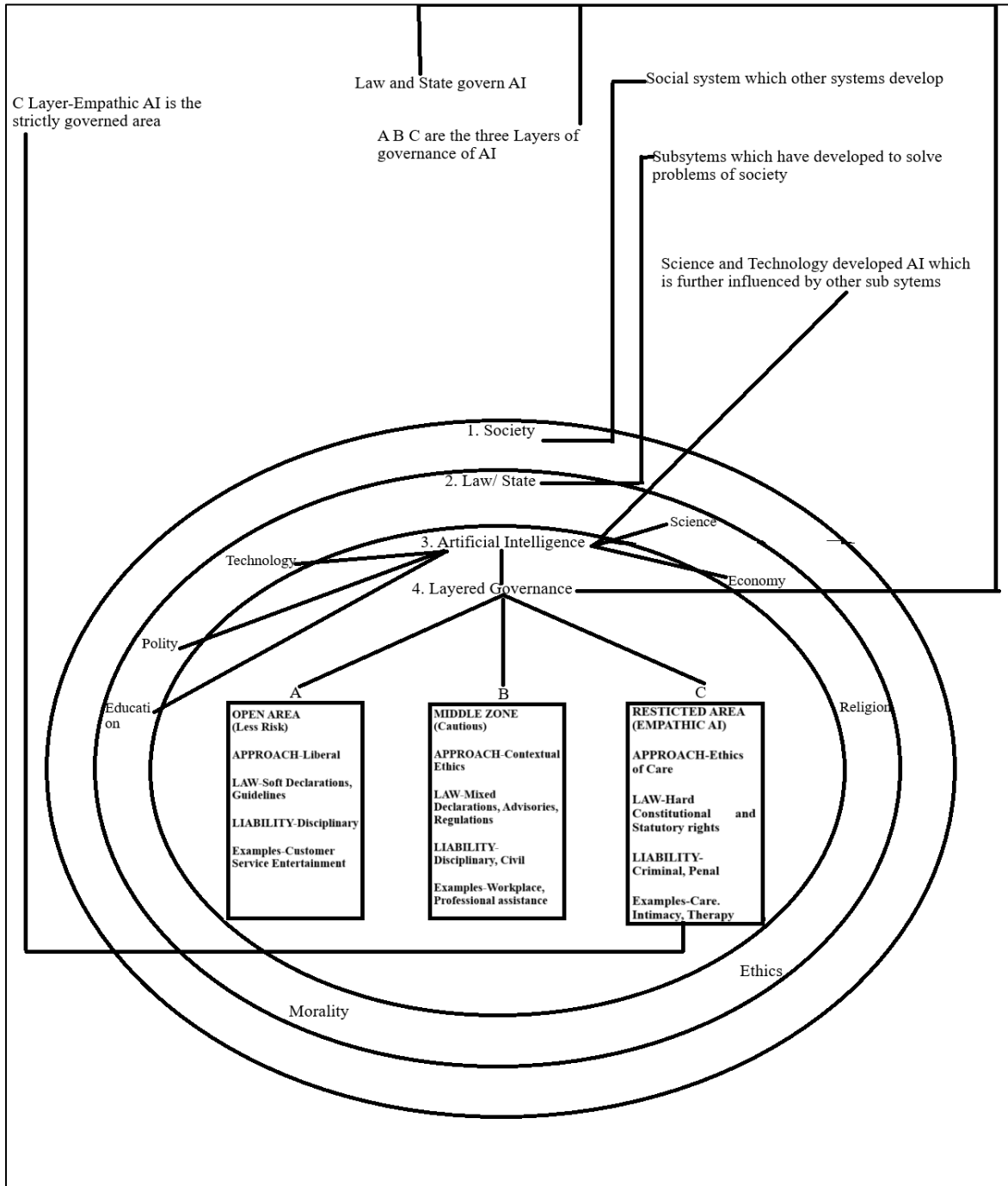


Figure 11 Ethical-Legal Layered Governance Model for balanced use of Artificial Intelligence

The model shown in the above diagram is inspired by the Systems theory of Talcott Parsons³⁵ and SCOT (Social Construct of Technology) of sociology³⁶.

From both these theories we can infer that society shown in the 1st ring of the diagram is a big social system within which other sub system develop. With time other subsystems shown in 2nd ring, develop to solve the many problems of society, such as, Law came into being to solve conflicts and maintain Integration. Sub systems of Science and

Technology have helped humans to adopt in the environment. The very first ring of society clearly depicts that nothing or no development, can undermine social system. Human advancements cannot be above the interests of society, as all development is a social construct and is of the people, by the people and for the people. Sub-systems of Science and Technology have created Artificial Intelligence as visible in the 3rd ring of the model. This ring further depicts, that other sub-systems there, such as Law, Economy, Education, Polity, influence the AI. Further in the 4th point of the model it is portrayed that the layered governance be a good tool, to respond to the problems involved and come with the benefits of Artificial Intelligence. Further Layered Governance is divided into three A, B, C parts. Every part explains the area of AI use and legal response thereto. A part shows that there are a few less risky areas of AI use such as customer care. These areas are called open in the sense that they will have less restrictions legally. In this zone the legal approach be liberal. Soft law i.e. declarations, guidelines will apply here. The warnings be given and disciplinary actions be taken for violations. B part depicts middle zone, neither less nor very risky area of AI use, such as workplace. Here the contextual ethics approach be applied. Law will be a mix of declarations, advisories and also regulations. This zone may attract disciplinary action or civil liability as per the violation. C part portrays most risky area of Empathic AI such as care, intimacy related areas of life. This area is the major highlight of the present paper and is the cause of extreme concern. Here the Ethics of care approach is being recommended to deal with the problems. In this zone the hard law can regulate better with sanctions and criminal liability in case of violations.

5.3.2. Socio Ethical-Legal Policy³⁷

This policy is very different from other policies being framed and advocated for balanced use of AI as it involves the very first fair concern to save our just social structure, social order.

The policy consists very strong spirit of social ethics which overpowers the factual action guidelines. These ethics are the objectives, principles which will exert pressure on evolving legal rules to be framed, adopted and interpreted in future. This policy hopes to serve as a guide to governmental actions, set goals and inform the creation of laws, regulations for the use of AI in a balanced manner to maximize the benefits and minimize the risks³⁸.

- **Objective:** Ensure AI augments human relationships, dignity, autonomy and refrains from disrupting our social structure and social order.
- **Compass:** It applies to all possible stakeholders, whenever AI infers, targets or responds to human emotions, mental state, social behavior and intimate data.

Fundamental Principles:

- Human Companionship- Save just social order and social structure in the sense that Robots cannot be a substitute for human companions.
- Human Rights- No AI design will violate Human Rights.
- Human oversight- A qualified human decision maker should be kept in the loop for restricted high risk zone.
- Non-injurious design- Design AI so to minimize mental emotional damage and manipulation.
- Preserve privacy/ data- Strong users rights are must.
- Fairness and Non-discrimination- Contain bias across gender, race, class, caste, disability, age.
- Transparency- Full and clear disclosures are must.
- Accountability- Preventive measures-audits, data and model governance
- Disciplinary action, redress, sanction for misuse.

Risk classification:

As per risks, use of Artificial Intelligence may be classified and accordingly responded through layered governance.

Prohibitions:

- Strict prohibition on social scoring of individuals.
- Strict prohibition on manipulation by Empathic AI.

Consent and Data Governance in lesser risk zones:

- Informed consent for collection of data, also enable withdrawal.
- Collect the minimized, least intrusive data.

- Allow data subject rights-access, correction, erasure, grievance redressal.

Auditing, Monitoring and Reporting:

- Pre deployment Audit.
- Later periodical Audits.
- Keep decision logs, human overrides.
- Promptly notify affected users.

Layered Governance and Accountability:

- Layered governance can be done through declarations, guidelines, restrictions, civil law and criminal law as per the category of risks (less, medium, high) involved and damage done.
- Special qualified officers for AI rule compliance can be recruited.
- Ethics Review Board can be set up.

Redress, Enforcement and Penalties:

- Remedies for lesser risk area- Complaints, review, correction and compensation.
- Remedies for higher risk area- Civil liability, Criminal liability.

Publications and Review:

- System registry of high risk deployments, model data cards, audit summaries, incident statistics, contact for grievances.
- Periodical review by authorities.

6. Conclusion

The Robots have arrived, but it is to remember that Technology is not autonomous. Considering it within the society is important. Societal concerns are above technology. The above discussions in the chapter establish that humanity cannot allow the technology to develop in a manner that it become a threat to human survival especially protection is required for our vulnerable population. We need technology but human safety and social protection are overriding concerns. The theoretical and empirical explorations emphasise that the need of the hour is to set the boundaries and specify the limitations and scope of human-AI relationships. It is for Society, Law and State to use AI in a balanced and responsible manner to maximise its benefits and minimise the burdens. We emphasise once again that it is humanity, which is to be a torchbearer for human civilization, not technology, only to reaffirm that let technology remain a boon not a bane for human societies. With special reference to Empathic AI, we conclude that human emotions are the most complex of all things existing in nature. It is extremely difficult for AI to mimic humans and it raises complexities in human-AI interactions. It requires genuine concern, real communication, human touch, intensive intra personal interaction, continuous experience, presence of mind, skills to analyze verbal and non-verbal expressions, empathetic understanding and close face to face encounter with faith, love and hope, cannot be replaced by AI. AI may be utilized to complement in needs but can never be a replacement of humans.

Suggestions

As we have studied AI from socio-legal angle here, our major thrust is on one overriding fundamental principle in relation to AI i.e ensuring, AI augments human relationships, dignity, autonomy and refrains from harming out Adolescents and disrupting our social structure and social order. Society, societal interests is to prevail over technology. It is humbly submitted here to balance the AI use such that it maximizes benefits and minimizes burdens.

Other Submissions³⁹

- Formulate a Socio Ethical Legal Policy that inculcate human companionship not the machine companionship.
- Protect the social order and social structure.
- Protect human rights.
- Humans should be kept in the loop for making decisions.
- Make non injurious designs.

- Preserve privacy/ data.
- Fairness, Transparency and Accountability should be the mantra.
- Rigorous safety protocols for Adolescents.
- Protect human vulnerabilities.

Modifications in Law⁴⁰

- Data protection: Expand the Digital Personal Data Protection Act, 2023 to explicitly categorize emotions/ affective data as sensitive personal data.
- Consumer protection: The Consumer Protection Act is to recognize emotional manipulation by AI as an unfair trade practice.
- Tort Law Development-Courts can evolve a doctrine of intentional AI inflicted emotional distress.
- Liability mechanism- Introduce no-fault insurance or compensation funds for victims of emotional damage caused by high risk AI system.

Regulatory Infrastructure⁴⁰

- Set up an AI Regulatory Authority of India to evaluate, license and audit AI application-sensitive area.
- Mandate algorithmic audits for bias, manipulation or emotional harm potential.

Awareness and Safeguards

- Launch public education programs to inform citizens about AI emotional influence.
- Encourage ethical AI design principles-R and D research and industry such as transparency dashboards that explain AI emotional responses.

6.1.1. International Collaborations⁴¹

- Align with the EU AI act and council of Europe AI convention by incorporating human rights based protections.
- Promote cross border regulatory dialogue.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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