

CREATING SUSTAINABLE LIVELIHOODS

In today's rapidly changing world, creating sustainable livelihoods is not merely an economic necessity; it is a social imperative. Sustainable livelihoods go beyond earning a daily wage—they encompass environmental stewardship, social equity, and resilience against economic shocks. With increasing population pressures, climate change, and technological disruptions, conventional approaches to employment and income generation are proving insufficient. It is, therefore, crucial for policymakers, communities, and individuals to focus on strategies that ensure long-term well-being and inclusive growth.

At its core, a sustainable livelihood is one that enables people to meet their needs without compromising the ability of future generations to do the same. This requires integrating economic, social, and environmental considerations. Agriculture, fisheries, handicrafts, small-scale enterprises, and eco-tourism offer immense potential to create livelihoods that are both profitable and environmentally responsible. For instance, adopting climate-smart agricultural practices not only enhances crop yield but also conserves water and soil health, providing farmers with stable incomes while safeguarding resources. Similarly, supporting traditional crafts and local entrepreneurship can preserve cultural heritage and generate employment, particularly for women and youth in rural areas.

Education and skill development are critical drivers of sustainable livelihoods. In a knowledge-driven economy, vocational training, digital literacy, and technical skills equip individuals to adapt to changing market demands. Empowering communities with financial literacy and entrepreneurship skills enables them to innovate, access markets, and withstand economic uncertainties. Moreover, social protection measures—such as insurance, pensions, and health-care—play a key role in making livelihoods resilient to risks, ensuring that progress is not undone by unforeseen challenges.

The role of government, civil society, and private sectors is equally important. Policy frameworks that promote microfinance, skill training, renewable energy projects, and green infrastructure can create opportunities for sustainable livelihoods. Collaborative models, including public-private partnerships and community-based organizations, ensure that development is participatory, inclusive, and contextually relevant.

Ultimately, sustainable livelihoods are about dignity, security, and opportunity. They empower individuals to lead productive lives while contributing positively to society and the environment. Investing in sustainable livelihood initiatives is not only an economic strategy but a moral and ecological commitment.

Empowerment, Due Process and Dignity: Governing Synthetic Media in India's Digital Public Sphere

S. KRISHNAN



India's digital public sphere is at a defining moment. Advances in artificial intelligence, particularly in the generation and alteration of audio, visual, and audio-visual content, have fundamentally reshaped how information is created, consumed, and trusted. While these technologies expand the possibilities of expression, creativity, and accessibility, they also introduce new risks that touch directly upon individual dignity, social harmony, and constitutional values.

Recognising the distinctive challenges posed by synthetically generated information, the Government of India has strengthened the legal and policy architecture governing digital intermediaries. Recent amendments to the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, read alongside the India AI Governance Guidelines, 2025 released under the IndiaAI Mission in November 2025, reflect a coherent and calibrated approach: binding legal obligations to address concrete harms, supported by policy principles to guide responsible AI adoption.

Together, these instruments, the outcome of extensive consultation with stakeholders, signal a clear governing intent—technological advancement must proceed within a framework that preserves transparency, accountability, and the dignity of the citizen.

A Statutory Response to Synthetic Media Risks

The amended Intermediary Rules introduce, for the first time, a precise and operational definition of "synthetically generated information." The definition is carefully calibrated. It captures content that is artificially or algorithmically created or altered in a manner that appears authentic or indistinguishable from reality, while expressly excluding routine, good-faith activities such as technical editing, accessibility enhancements, educa-

tional or research material, and legitimate creative use.

This definitional clarity performs an important legal function. By expressly bringing synthetically generated information within the scope of "information" for the purposes of due diligence, grievance redressal, and intermediary responsibility, the Rules ensure that emerging forms of digital harm are addressed within the existing statutory framework, rather than left to informal moderation practices.

Equally significant is the explicit clarification that good-faith actions taken by intermediaries, through automated tools or other reasonable technical measures, do not undermine statutory protections. This reinforces a compliance-enabling environment while preserving accountability.

Labelling, Provenance, and Ex-Ante Safeguards

The most consequential shift in the amended framework lies in its movement from reactive moderation to ex-ante governance. Intermediaries that enable or facilitate the creation or dissemination of synthetically generated information are now required to deploy reasonable and appropriate technical measures to prevent the circulation of unlawful content at the point of creation or dissemination.

Where synthetically generated content is lawful, the Rules mandate clear and prominent labelling, supported by persistent metadata or other provenance mechanisms, to the extent technically feasible. The modification, suppression, or removal of such labels or identifiers is expressly prohibited.

This techno-legal approach reflects a nuanced regulatory understanding. Rather than relying solely on takedowns after harm has occurred, the framework treats transparency as a safeguard of dignity and trust. Citizens are empowered not only through remedies, but through the ability to distinguish authentic content from synthetic content in real time. It is a recognition of a right to know for citizens.

The amended Intermediary Guidelines also require the Intermediaries to periodically and clearly inform users of their rights, obligations, and the consequences of non-compliance, using accessible language.

Heightened Responsibilities for Significant Platforms

For significant social media intermediaries, the regulatory framework imposes additional obligations commensurate with scale and influence. Such platforms are required to obtain user declarations regarding synthetically generated content, deploy proportionate technical measures to assess the accuracy of those declarations, and ensure that synthetically generated information is not published without appropriate identification.

Failure to comply with these requirements may constitute a lapse in due diligence under the Rules, with attendant statutory consequences. This approach reflects a calibrated allocation of responsibility, recognising that platforms with greater systemic impact must shoulder higher governance obligations.

Policy Guidance for Responsible AI Adoption

Complementing these enforceable legal rules, the India AI Governance Guidelines, 2025 articulate a policy framework for responsible, safe, and inclusive AI adoption. The Guidelines emphasise transparency, accountability, human-centric design, and risk awareness, while expressly operating within the boundaries of existing law.

Importantly, the Guidelines do not displace statutory obligations under the IT Act or the Intermediary Rules. Rather, they provide directional guidance to developers, deployers, and institutions, reinforcing the expectation that AI systems, particularly those capable of generating synthetic content, must be designed and deployed with due regard to societal impact and public trust.

Legislative Competence and Democratic Stewardship

India's approach to governing emerging technologies is anchored in constitutional legitimacy and institutional capacity. While

the present framework relies on calibrated rule-making and policy guidance, Parliament retains full legislative competence to respond to evolving technological realities where required in the public interest. This is not an assertion of regulatory excess, but a reaffirmation of democratic stewardship—ensuring that innovation remains aligned with constitutional values, due process, and the protection of individual dignity. The existing framework therefore reflects not regulatory finality, but regulatory readiness: adaptive, proportionate, and firmly grounded in the rule of law.

A Citizen-Centric Digital Governance Model

India's approach to digital regulation has consistently avoided rigid or reactionary responses. Instead, it has favoured principle-based and proportionate governance built on extensive consultation that preserves innovation while safeguarding rights.

The evolving framework for synthetic media exemplifies this approach. By combining definitional precision, ex-ante safeguards, mandatory transparency, time-bound remedies, appellate oversight, and policy guidance for responsible AI, India is strengthening confidence in its digital public sphere. The challenge posed by synthetic media is ultimately one of trust, that technology will not outpace rights, that platforms will remain accountable, and that institutions will respond effectively to citizen harm. Empowering users through enforceable procedures, embedding transparency by design, and reinforcing institutional oversight are not competing objectives. They are the foundations of a resilient digital democracy.

Anchored in these principles, India's response to synthetic media offers not only a domestic governance solution, but a globally relevant model for democratic, rights-respecting regulation in an AI-mediated world.

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Daughters of Bharat: A Deprived Section of the Society-II

ER. PRABHAT KISHORE

Special focus on backward states

In the Indian context, just providing facilities is not enough to educate everyone. There is a need to focus on backward states and remove gender and regional disparities, increase enrolment & retention and providing quality based learning.

The work done by girls is usually not visible as it is confined to the home. In rural areas, girls take care of their brothers and sisters, cook food, clean, fetch fuel and wood and help in sowing, ploughing, harvesting etc. in the fields. Even in urban areas, girls do household chores as well as earning money outside the home. Although there is no effective method available for measuring or financially evaluating household work; according to a 1981 estimate, a rural girl would have done work worth more than Rs 39,600 by the time she becomes an adult.

The curse of child marriage

Child marriage is a curse for both boys and girls. But for girls the consequences are graver since, for them, marriage means the end of education, taking over responsibilities inside and outside the home, and restrictions on movement in and outside the home. Early marriage prolongs the fertility of girls. Due to early and repeated pregnancies, they become physically weak. As a result, child marriage reduces the productivity of adult women.

Measures for elimination

The Child Marriage Restraint Act, 1929 (replaced by the Child Marriage Prohibition Act 2006) does not seem to be implemented anywhere. Two efforts are required to eradi-

cate child marriage. First, to awaken the community and secondly, to overcome poverty, the root cause of child marriage. On an average, 1,00,00,000 marriages take place every year in Bharat, out of which 30 percent of girls are of the age of 15-19 years. A clear impact of education is seen on the age of marriage. The average age difference between a graduate and an illiterate girl at the time of marriage is four and a half years. Sometimes they are married before they even reach puberty. 90 percent of them become mothers within the first one or two years.

According to the data collected by N.N.M.B. (1980) during the year 1975-78, girls in the age group of 13-18 years get less iron than the recommended amount as compared to boys. Young girls become anaemic as a result of menopause due to deficiency of iron in the diet. Low birth weight and basic delivery related complications are more common among teenage mothers

Girls/women who give birth to their first child at an early age are at risk of birth complications. After the first menstruation around the age of 14, they have to endure the pain of intercourse. Their bodies and reproductive systems are immature. Apart from the requirements of tissue maintenance and foetal development, they also have to meet the nutritional demands for their own growth.

Adverse effects

Due to their gender, girls are more susceptible to the adverse effects of adverse circumstances than boys. Children living in difficult circumstances can be classified into many categories such as :- working children, street

children, neglected and exploited children, children associated with institutions, children affected by the consequences of war, children of prostitutes, children involved in sexual relations in childhood, children who are victims of physical abuse. Poor families in areas adjacent to big cities, deprived families living in rural areas, prostitutes, gamblers, alcoholics, prisoners are at the highest risk of sexual abuse.

Incidents of rape of minor girls

Incidents of rape of minor children are increasing. 25 percent of rape cases are of minor girls. At some places, sexual abuse is also done in the name of religion, which is popular as "Devdasi" in Bharat. According to Oxfam India's 2011-12 report, 29 percent women in the labour sector; 23 percent in domestic maid service and 16 percent in small scale industrial units have complained of sexual exploitation.

Political will and actions are needed to ensure equal opportunities and status for girls in the decade of 2030. This is only possible with the joint efforts of the government, international organisations and private institutions. Political, legal and developmental policies should be made to eliminate gender discrimination and bias in childhood.

The main points suggested by experts regarding girls are as follows:-

- (1.) Religious, legal, social, economic and anthropological evidence should be collected and such information should be used in policy making and programme based interventions to improve the situation.
- (2.) Concrete steps should be taken by set-

ting targets and preparing a time table related to the basic health, nutrition, education and social status of girls.

(3.) A time-bound process should be set at the community and national levels to ensure survival and development programmes.

(4.) The negative image of girls prevalent through media, education, religion and culture must be corrected through legal and social mechanism.

(5.) To enhance self-confidence and self-reliance in girls, human development activities should be organised at various levels and their active participation should be encouraged.

(6.) Equal rights for girls should be supported in every national and international gathering.

The daughters of Bharat are victims of gender and caste-based malice. They are forced to live a suffocating life from prenatal foeticide till the last breath of their life and are living out the famous lines of the national poet Dinkar, "Nari Jeevan Hai Teri Yahi Kahani, Aanchal Mein Hai Doodh Aur Aankhon Mein Paani". The fact cannot be denied that women are more responsible than men for the pitiable condition of girls. Education is the only spark that can ignite their extinguished lives and remove the darkness that has been going on for generations. Women's awakening and women empowerment is the divine weapon that will be the new ray of dawn for the neglected daughters of Bharatvarsha in which the whole nation will shine.

(The author is an engineer and academician)

Between Fear and Faith: Parenting Teenagers in the Age of Digital Doubt

POOJA RANI

A simple email notification can sometimes disturb a parent's peace more than a long day's work. While checking my inbox recently, I noticed a message indicating a purchase related to an online game. For a brief moment, fear took over. Questions rushed in—Was it done unknowingly? Was it done deliberately? Was my child involved?

This moment captures the emotional landscape of parenting teenagers today: a constant balancing act between fear and faith, suspicion and understanding.

Like many parents, I stood at a crossroads. One path led to silent doubt and internal accusation; the other to open conversation. I chose to talk. Not interrogate—just talk. My son explained calmly that the game points were shared by a friend and meant for his cousin. The matter was clear, simple, and harmless. The fear dissolved. Yet, the experience left behind a lingering question that many parents carry quietly: What if, someday, teenagers get diverted?

This fear is not irrational. Adolescence is a stage of exploration, identity formation, and experimentation. Teenagers today grow up in a digital environment that offers unlimited access, instant gratification, and blurred boundaries between real and virtual worlds. Online games, social media, digital wallets, and virtual rewards are part of their everyday life—often more familiar to them than to their parents.

However, fear alone cannot guide parenting. Modern parenting demands a shift—from control to connection, from constant surveillance to conscious trust. This does not mean blind faith or negligence. It means choosing dialogue over dominance and understanding over assumption.

Trust, in this context, is not weakness; it is a tool—perhaps the strongest one we have. When parents immediately accuse, teenagers often respond with silence, defensiveness, or secrecy. When parents listen first, teenagers are more likely to explain, reflect, and self-correct. Trust opens doors that fear keeps locked. At the same time, trust does not eliminate responsibility. Parents must stay informed about digital platforms, payment systems, privacy settings, and online risks. Awareness is not mistrust; it is preparedness. Knowing how things work helps parents ask better questions—not harsher ones.

What teenagers need most is not perfect parents, but emotionally available ones. Adolescents test boundaries not because they want to fall, but because they want to know whether someone is watching with care rather than control.

Mistakes—small or big—are part of growing up. The question is not whether teenagers will face temptation or confusion, but whether they will feel safe enough to talk about it. In a world where children are often judged quickly by peers, by screens, by society—home must remain a space of psychological safety. A place where honesty is valued more than obedience, and conversation matters more than conclusions.

Parenting teenagers today is less about having answers and more about asking the right questions:

- ▶ What are they exploring?
- ▶ Why does it matter to them?
- ▶ How can I guide without suffocating?

Fear will always travel with love. That is natural. But when fear leads parenting, it creates distance. When trust leads, it builds resilience—both in children and in parents.

That small email notification reminded me of something essential: parenting is not about preventing every possible mistake, but about building a relationship strong enough to withstand them. In the end, technology will change, platforms will evolve, and challenges will multiply. What must remain constant is the human connection between parent and child. Because long after the screens go dark, it is trust that continues to guide them—and us.

GL KHAJURIA



Peepal is a large deciduous tree with grey bark and is predominantly prominent of its religious affiliation in almost all the spiritual rituals. In Hindu families, the ladies are mostly ordained of this religious tree and worship it for the longevity of their husbands. Even otherwise also, the tree is watered in the morning by every Hindu and it showers blessings as poetized in our revered Vedas and Purana. It is exorcising and gives maximum oxygen and is of ample importance for shade as Lord Sudha attained salvation and spiritual enlightenment under Pipl tree at Sarnath situated barely five miles away from Varanasi. The place is now of ample importance due more so that most of the Buddhist pilgrimage are in existence, apart from the existence of Ashoka's pillar of remote past and subsequently adopted by the Republic of our country (Ashoka's Chakra) after the dawn of independence.

The tree is spoken in botanical parlance as Ficus religiosa' belonging to the family urticaceae of plant kingdom. In the olden days, the people have had an extensive interest in the propagation of these trees to provide shade to all travelers over long distance when the national highways were scanty and road connectivity was very poor.

Peepal A Sacred Tree

The tree is having its inhabitation commonly throughout India in tropical zones and mostly cultivated alongside road near ponds (Talab) and temples and other religious places as it is mostly watered after having bath in the pond over the ages. It as well find its existence in the tropical and sub-tropical forests amongst other trees, bushes, herbs, shrubs and plants of lower strata.

The morphological characteristics of the tree are quite exuberant and share its own importance unmatched other broad-leaved species. The trunk of the tree is irregularly shaped having alternate leaves on the twigs and the leaves are orbicular - ovate, thinly coriaceous but tough, shining above, reddish when young, white tubercled when mature; undulate; main lateral nerves are 6-7 pairs, joined by prominent closely reticulate veins; base is shallow chordate rounded or truncate.

The tree is prominently a sanctimonious one and is held with much veneration by Hindus especially near temples and wells, often catching a height upto 900 ft in the outer Himalayas. Being a sanctified tree, its felling or axing is considered sinful, second only: to the Killing of a Brahman that is why the tree is regularly watered after early bath in the morning by men of all hues and ladies usually worship this tree for the longevity of their husbands. Wood of the tree is grayish-white, moderately hard, not so mottled as of its relative species viz. Ficus arnottiana and when the trees get old and dried; the firewood is used in cremation as its wood

is considered as sanctimonious.

The tree finds its existence in Sub Himalayan tract and outer hills, ascending to greater height from Chenab eastwards to Marwara, Assam, lower Bengal. In the eastern part of India. The tree is vernacularly Spoken as Pipl or Pares. The trees of Pipl found in the Jaunser catches a lower heights upto 60ft as elsewhere in Garhwal, Ajmer, Bihar, Central provinces, Nagpur. Western Peninsula in the Deccan and near the coastal areas in the south tips of the Indian Ocean upto Bay of Bengal.

The branches and leaves find It their usefulness as the best fodder for elephants and its leaves are also used on all rituals and other ceremonies amongst Hindu families. The milky juice or sap of the tree is hardened into a substance resembling that of Guttapercha'. It is rather a fast growing tree and finding its importance in the 'arboriculture' (avenues plantations) and further it is of ample importance in its propagation through- branches-and cuttings. However, of course, the tree is an epiphyte and prove to be destructive often-when it grows by sending its roots down through the crevices of big buildings and monuments.

A large shrub or a small trees also find its existence often as epiphyte creeping over rocks having the characteristics of broad ovate base corbate and densely clustered basal branches with bracts being membranous. Flowering of the tree usually-take-place in April - May.

The tree is of immersive importance amongst all-other trees in the biological ecosystem as it exudes maximum oxygen into air and at the same time absorbing CO2 and other Poisonous gases emanating from industrial emission coupled with enormous pollution off shooting from multi-tubed vehicles which by every day's turn dilutes pollution into the air. So, it becomes more pertinent for the extensive plantation of this tree all over the globe most suited to site, preferably along National Highways, canals, railway tracts, around ponds and wells and many other wastelands.

But it is no longer a single man's show we all have to join hands irrespective of age and gender and perhaps the youth have had a far reaching role to play within the plantation drive. It is no doubt a self-speaking fact that Forest Deptt. Along with its associate wings are doing yeoman's service in the inculcation of this species and abundant stocks are available in our nurseries and it is unambiguously the ripe time when we can take in hand advance work like that of pit work and trenching so that with the onset of Monsoon we are in a position to carry out massive afforestation work of suchlike trees mentioned in the body of the-write up and further let us take a pledge for mass movement in making this mission a success oriented ensuring greening of the globe and sustainability of all form of bio-life and its ecosystem - which is the clarion call of the day.

(The author is former Dy. Conservator of Forest J&K)