

**REPRODUCTIVE RIGHTS OF WOMEN IN THE AGE OF ARTIFICIAL
INTELLIGENCE: A CONSTITUTIONAL FRAMEWORK**

Ekta Rani
Research scholar
Department of Law
Punjabi University, Patiala

Abstract:

Through technologies like fertility prediction, embryo selection, prenatal diagnostics, and AI-assisted reproductive operations, artificial intelligence (AI) is quickly changing the field of reproductive healthcare. These developments provide better effectiveness and access to healthcare, but they also bring up significant ethical, legal, and constitutional issues pertaining to Indian women's reproductive rights. Concerns about privacy, physical autonomy, informed consent, data protection, and algorithmic bias are raised by the growing use of AI in reproductive decision-making. The link between AI and women's reproductive rights under India's constitution is examined in this essay. In particular, it examines the rights to equality, dignity, privacy, and personal liberty as guaranteed by Articles 14, 15, 19, and 21 of the Constitution. Through judicial interpretations, the study delves deeper into the constitutional recognition of reproductive choice.

In light of issues with sex-selection and gender discrimination, the paper critically assesses the role of AI-driven technologies in fields like assisted reproductive technologies, reproductive monitoring, and prenatal screening. Additionally, it looks at how well laws like the Medical Termination of Pregnancy Act, the PCPNDT Act, the Assisted Reproductive Technology Act, and the Surrogacy Act regulate AI-based reproductive practices. The study, which employs a doctrinal and analytical approach, comes to the conclusion that while AI has the potential to improve reproductive healthcare, women's constitutional rights may be threatened in the lack of strong legal protections. In order to guarantee that technology developments stay in line with women's reproductive autonomy and human dignity, the paper promotes gender-sensitive AI regulation, algorithmic accountability, and more robust constitutional protections.

Key words: Bodily autonomy, artificial intelligence, dignity, privacy, reproductive choice etc.

1. INTRODUCTION

Through technologies like fertility prediction, prenatal diagnostics, embryo screening, telemedicine, genetic analysis, and pregnancy monitoring systems, artificial intelligence (AI) is progressively impacting reproductive healthcare. Although these developments have increased medical accessibility and efficiency, they also bring up important constitutional, legal, and ethical issues pertaining to women's reproductive autonomy, privacy, equality, dignity, and physical integrity. *Roe v. Wade* was a landmark decision by the Supreme Court of the United States. Court held that U.S. Constitution protected a woman's right to choose to have an abortion before fetal viability, limiting the ability of the States to ban abortion.¹ Reproductive rights in India have developed as a result of court interpretations of fundamental rights, especially those found in Article 21 of the Constitution. Reproductive choice has progressively been acknowledged by the Supreme Court as a crucial aspect of individual freedom, privacy, and dignity. However, the application of AI in reproductive healthcare raises concerns about data misuse, algorithmic discrimination, surveillance, and technological control over private reproductive choices. Therefore, it becomes necessary to analyze artificial intelligence and women's reproductive rights within the constitutional framework of India.

2. MEANING OF ARTIFICIAL INTELLIGENCE IN REPRODUCTIVE HEALTHCARE

Artificial Intelligence refers to computer systems capable of performing tasks requiring human intelligence through data analysis, machine learning, prediction, and automated decision-making.² The artificial intelligence (AI) allows computers and other devices to mimic human learning, comprehension, problem-solving, decision-making, creativity, and autonomy. AI's use in sexual and reproductive health (SRH) is a developing field that could improve access to and delivery of healthcare.³ According to the World Health Organization's compendium of interventions for promoting universal health coverage,

¹ 410 U.S. 113 (1973).

² Available at: <http://www.sciencedirect.com> (last visited on April 25, 2026).

³ World Health Organization. The Role of Artificial Intelligence in Sexual and Reproductive Health and Rights: Technical Brief (World Health Organization, 2024).

SRH's health domains cover subjects like contraception/family planning, infertility and fertility care, maternal health, STIs, including HIV, comprehensive abortion care, sexual health, and gender-based violence. These health issues are also frequently encountered by groups that are stigmatised or in disadvantaged circumstances. Therefore, depending on how AI is developed, controlled, and implemented, it may be essential to increasing SRH access for populations neglected by traditional health service delivery methods, but it may also put people in vulnerable situations at higher danger.⁴

In reproductive healthcare, AI is used for:

- IVF and fertility treatment
- Embryo selection
- Prenatal testing
- Pregnancy risk prediction
- Menstrual and fertility tracking applications
- Genetic screening
- Maternal healthcare monitoring

AI helps doctors diagnose and forecast reproductive health issues more quickly and accurately. AI has been incorporated into many medical specialities, including reproductive medicine, more and more in recent years. AI is currently being used to improve sperm cell, oocyte, and embryo selection and prediction as well as to create more precise predictive models for in vitro fertilisation. AI is currently being used in Sexual and Reproductive Health (SRH) care to screen for and predict pregnancy and infertility. AI's ability to evaluate large datasets can provide both new and current insights into reproductive health issues, customise therapies to each patient's needs, and forecast health trends, potentially revolutionising the provision of SRH services worldwide.⁵

The following five fundamental aspects of Sexual and Reproductive Health and Rights (SRHR) include: (1) enhancing prenatal, perinatal, postpartum, and newborn care; (2)

⁴ World Health Organization. Sexual and Reproductive Health Interventions in the WHO UHC Compendium (World Health Organization, 2021).

⁵ Medenica S, Zivanovic D, Batkoska L, Marinelli S, Basile G, Perino A, Cucinella G, Gullo G, Zaami S. *The future is coming: artificial intelligence in the treatment of infertility could improve assisted reproduction outcomes—the value of regulatory frameworks*, available at: www.mdpi.com (last visited on May 20, 2026).

offering high-quality contraception and infertility services; (3) ending unsafe abortions; (4) preventing and treating STIs, including HIV and reproductive tract infections; and (5) cervical cancer.⁶ With regard to sexual rights and rights to sexual autonomy, all of these AI-facilitated SRH components have ethical and human rights implications. These rights are primarily norms derived from existing human rights and recognised in numerous international conventions that encompass freedom, equality, privacy, autonomy, integrity, and dignity.⁷

2.1 Meaning of Reproductive Rights

For women to exercise their human rights, they must have the ability to procreate. The ability of women to make the best decisions for their lives, including the number of children they have, if any, and the intervals between their births, is at the heart of these rights. Access to contraception, safe childbirth, and prenatal services are examples of reproductive rights. Access to safe and legal abortion is another one among them. The rights to privacy, family, health, freedom from violence, and even life are all violated by abortion laws. Additionally, people of colour, youth, and marginalised communities suffer the most from prohibitions because they already struggle to get health care and other essential services. Governments should trust women to know what is best for their bodies, their physical and mental health, and their lives.⁸

Reproductive rights refer to the rights of women to⁹:

- Make autonomous reproductive decisions
- Access reproductive healthcare services
- Decide whether or not to continue pregnancy
- Maintain bodily integrity and privacy
- Access maternal healthcare and contraception

⁶ Tamrat T, Zhao Y, Schalet D, AlSalamah S, Pujari S, Say L. *Exploring the Use and implications of AI in sexual and Reproductive Health and rights: protocol for a scoping review*. JMIR Res Protocols, available at: <https://www.researchgate.net>. (last visited on May 20, 2026).

⁷ Zammit R. *Ethical Issues of Artificial Intelligence & Assisted Reproductive Technologies*. Int J Prenatal Life Sci. 2023. 10.24946/IJPLS, available at: <http://www.um.edu.mt> (last visited on May 20, 2026).

⁸ Available at: <https://www.hrw.org/topic/womens-rights/reproductive-rights> (last visited on May 21, 2026).

⁹ Ibid.

These rights are closely connected with:

- Human dignity
- Privacy
- Equality
- Health
- Personal liberty

3. CONSTITUTIONAL FRAMEWORK PROTECTING REPRODUCTIVE RIGHTS

The ability of an individual, especially a woman, to make decisions about reproduction free from prejudice, compulsion, or government intervention is referred to as reproductive choice. It encompasses the freedom to choose whether to become pregnant, go on with a pregnancy, end a pregnancy within legal bounds, obtain reproductive healthcare, and make educated decisions about family planning and contraception. Through judicial interpretation of fundamental rights protected by the Indian Constitution, reproductive choice has progressively become a constitutionally protected right in India. Despite the fact that neither "reproductive rights" nor "reproductive choice" are specifically mentioned in the Constitution, the Supreme Court has interpreted a number of fundamental rights to include reproductive autonomy. India's reproductive rights jurisprudence is based on Article 21.¹⁰ According to Article 21, no one may be deprived of their life or personal freedom unless a legally prescribed process is followed. The Supreme Court has broadened the definition of "life" to encompass autonomy, dignity, privacy, bodily integrity, and health in addition to animal existence.¹¹

Reproductive choice is primarily protected under Article 21 because decisions relating to pregnancy and childbirth directly concern a woman's body, mental health, dignity, and personal liberty. The right includes:

- Right to decide whether or not to bear a child;
- Right to access reproductive healthcare services;

¹⁰The Constitution of India, 1950 art. 21.

¹¹ *Kharak Singh v. State of U.P.*, AIR 1963 SC 1295.

- Right to contraception and family planning;
- Right to terminate pregnancy within legal limits;
- Right to maternal healthcare and safe reproductive conditions.

The Court has consistently held that forcing a woman either to continue or terminate a pregnancy against her will violates her bodily autonomy and dignity. The Supreme Court has interpreted the right to life broadly to include privacy, dignity, bodily autonomy, and reproductive choice. In *Suchita Srivastava v. Chandigarh Administration*¹², the Supreme Court recognized reproductive autonomy as a part of personal liberty under Article 21. Reproductive rights include both the right to procreate or not to procreate. The Court emphasized a woman's right to make reproductive choices free from state interference.

Justice K.S. Puttaswamy v. Union of India,¹³ the Court declared privacy is an intrinsic part of **the right to life** and personal liberty under article 21 and held that decisional autonomy concerning intimate matters, including reproductive choices, falls within constitutional protection. In *X v. Principal Secretary, Health and Family Welfare Department*,¹⁴ the Supreme Court expanded reproductive rights and emphasized that reproductive autonomy belongs to every woman, irrespective of marital status.

AI systems may produce discriminatory outcomes if algorithms are based on biased or incomplete data. Women, especially marginalized groups, may face:

- Unequal healthcare access
- Misdiagnosis
- Algorithmic discrimination

Equal protection under the law and equality before the law are guaranteed by Article 14. Because women are disproportionately affected by limits on reproductive autonomy, reproductive choice and equality are related. Substantial equity is undermined by coercive reproductive practices, discriminatory access to abortion services, and denial of reproductive healthcare. Fairness, non-arbitrariness, and equal protection under the law are mandated by

¹² (2009) 13 SCR 989.

¹³ (2017) 1 SCC 1.

¹⁴ Civil Appeal no. 5802 of 2022.

Article 14 of the Indian Constitution.¹⁵ Therefore, the norms of constitutional equality must be adhered to by AI systems that impact reproductive healthcare.

Discrimination based on sex is forbidden by Article 15.¹⁶ Constitutional guarantees of gender equality may be violated by AI systems that promote gender stereotypes or make sex selection easier. Due to the historical abuse of prenatal technologies for sex determination, this is especially pertinent in India. Individual autonomy and decision-making freedom are linked to reproductive choice. The freedom of women to make their own reproductive decisions may be indirectly restricted by excessive technological impact or state surveillance through AI-based reproductive monitoring. Denial of reproductive autonomy frequently amounts to gender discrimination because reproductive burdens are biologically associated with women. Article 15 of the Constitution upholds women's autonomy and dignity in making reproductive decisions. Article 19 also relates to several aspects of reproductive choice, namely freedom of expression and individual decision-making. Decisions about marriage, reproduction, family life, and reproductive health are considered essential components of personal freedom and self-expression.¹⁷

4. Constitutional Challenges Posed by AI in Reproductive Healthcare

4.1 Privacy and Surveillance Concerns

AI systems collect sensitive reproductive data, including:

- Fertility information
- Pregnancy records
- Genetic details
- Menstrual cycle data. Unauthorized access or misuse of such data may violate the constitutional right to privacy recognized under Article 21. Balancing technological innovation with informational privacy and bodily autonomy.¹⁸

4.2 AI and Threat to Reproductive Autonomy

AI-driven recommendations may influence reproductive decisions, such as:

¹⁵ *Supra* note 10, art. 14.

¹⁶ *Id.*, art. 15.

¹⁷ *Supra* note 13, *K.S. Puttaswamy (Retd.) v. Union of India*.

¹⁸ *Ibid.*

- Pregnancy continuation
- Fertility choices
- Genetic selection

Overdependence on AI may undermine women's independent decision-making protected under constitutional liberty.

4.3 AI and Sex Selection Risks

Advanced AI technologies may indirectly facilitate prenatal sex identification and selective abortion practices. The Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act, prohibits sex selection and prenatal sex determination¹⁹. The main goal of the Act is, State has a constitutional obligation to prevent gender discrimination and protect the dignity of the girl child.²⁰

4.4 Algorithmic Bias and Equality Violations

AI systems trained on biased datasets may produce discriminatory reproductive healthcare outcomes affecting rural women, economically weaker women and minority groups. These data sets may not adequately represent women from diverse socio-economic, regional or marginalized backgrounds. As a result, AI-based suggestions and risk assessments may produce biased outcomes, leading to unequal access to reproductive healthcare services. Such discrimination can adversely affect decisions relating to fertility treatment, prenatal care and abortion services. These biases raise concerns under 14 of the Constitution of India, which guarantees equality before law and equal protection of laws. Therefore, unchecked algorithmic bias may perpetuate existing social inequalities and undermine women's reproductive autonomy and constitutional rights. Such unequal treatment may violate Articles 14 and 15 of the Constitution.²¹

4.5 Commercial Exploitation of Reproductive Data

¹⁹ R. Kumar, "Abortion: Will the Debate Ever End," Amar: An Inter-Disciplinary Research Journal, Vol. 3, Issue 1, 2017, pp. 55-62. ISSN: 2348-1323.
https://scholar.google.com/citations?view_op=view_citation&hl=en&user=NRCx2QwAAAAJ&pagesize=80&citation_for_view=NRCx2QwAAAAJ:k6nH7jlkaTkC

²⁰ Act 57 of 1994.

²¹ *Supra* note 10.

Digital reproductive platforms and fertility applications may commercially exploit intimate reproductive information. Commercial misuse of reproductive data threatens dignity, privacy, and informational self-determination.

5 ETHICAL CONCERNS UNDER CONSTITUTIONAL MORALITY

According to the constitutional morality principle, the application of artificial intelligence in reproductive healthcare presents serious ethical issues. AI-based systems have the potential to reinforce socioeconomic, gender, or caste prejudices, which could result in discriminatory reproductive choices and unequal access to medical care. A woman's autonomy, dignity, and informed consent, all essential constitutional values, may be compromised by an overreliance on algorithms. Serious privacy concerns are raised by the gathering and processing of sensitive reproductive data, which may violate the right to privacy guaranteed by Article 21. Furthermore, issues affecting reproductive decisions may become less transparent and accountable as a result of opaque AI decision-making. As a result, the application of AI in reproductive healthcare must be consistent with the equality, dignity, privacy, and individual autonomy guaranteed by the Constitution. The Indian Constitution promotes dignity, autonomy, equality, and social justice. AI systems in reproductive healthcare must therefore function within constitutional morality. Major ethical concerns include²²:

- Informed consent
- Transparency in AI decision-making
- Human oversight
- Prevention of technological coercion
- Respect for bodily autonomy

6 NEED OF CONSTITUTIONAL AND REGULATORY SAFEGUARDS

Constitutional and regulatory protections are crucial, given the benefits and concerns posed by the rapid integration of artificial intelligence (AI) into reproductive healthcare. AI systems frequently handle extremely sensitive personal and reproductive data, necessitating strong privacy safeguards to avoid abuse and unapproved publication.

²² Sridhar Seshadri and Shree Iyer, *AI for Everyone* 51 (Embassy Book Distributors, Maharashtra, 2011).

Women's rights to equality, physical autonomy, dignity, and reproductive choice are shielded from arbitrary technology interference by constitutional protections. To combat algorithmic bias that could lead to discriminatory outcomes based on gender, caste, handicap, or socioeconomic position, regulatory frameworks are required. People should be able to comprehend how AI-assisted judgements are made thanks to transparency regulations. To ensure that crucial reproductive decisions are not only entrusted to automated systems, human monitoring must continue to be crucial. To guarantee that women maintain control over their reproductive knowledge and choices, informed consent protocols should be reinforced. These protections prevent constitutional infractions while fostering public confidence in developing technologies.²³ Therefore, to guarantee that AI enhances reproductive healthcare without undermining core constitutional principles, a rights-based regulatory strategy is essential. India requires a robust legal framework to regulate AI in reproductive healthcare. Suggested safeguards include:

- a. Strong reproductive data protection laws
- b. Transparency in AI algorithms
- c. Human supervision over AI decisions
- d. Gender-sensitive AI regulation
- e. Accountability mechanisms for AI-related harm
- f. Strict prevention of AI-assisted sex selection

7 INTERNATIONAL PERSPECTIVE

UNESCO made recommendations regarding AI ethics in 2021. The ethical compass is more important in artificial intelligence than it is in any other field. These all-purpose devices are changing how we live, work, and interact. The world is going to change at a rate not seen since the invention of the printing press six hundred years ago. AI technology has numerous advantages, but without ethical safeguards, it risks reproducing prejudice and discrimination in the real world, causing division and endangering basic freedoms and human rights. AI business models, which are typically created in teams led by men and lack the cultural diversity that defines our globe, are heavily concentrated in a small number of nations and

²³ W.F. Lawless, Donald Sofge, *et.al.* (eds.), *Autonomy and Artificial Intelligence 108* (Springer International Publishing Agency, New York, 2018).

companies. Compare this to the reality that half of the world's population still lacks a reliable internet connection.²⁴

In order to address this, we developed the most extensive international framework in the world to influence the advancement and application of AI technologies under the direction of UNESCO Director-General Audrey Azoulay and with a clear mandate from our Member States. The recommendation places a strong emphasis on who should be in charge of these technologies. It strongly urges governments everywhere to set up the institutional and legal frameworks required to control new technologies and guarantee that they serve the public interest. It unmistakably marks the end of the "self-regulatory model" that has been in place for far too long, putting geopolitical and commercial goals before of people. The Recommendation creates a set of principles that support and uphold environmental sustainability, human rights, and human dignity. It promotes fundamental values like accountability, openness, and the rule of law on the internet.

The UNESCO framework emphasizes²⁵:

- Human rights protection
- Gender equality
- Privacy
- Human dignity
- Accountability in AI systems

The EU must adopt a "human-centric" approach to AI that respects European values and ideals, according to the recommendations. By guaranteeing respect for fundamental rights, including those outlined in the Treaties of the European Union and the Charter of Fundamental Rights of the European Union, which are all united by reference to a common foundation rooted in respect for human dignity in which the human being enjoys a unique and inalienable moral status, the human-centric approach to AI aims to ensure that human values are central to the development, deployment, use, and monitoring of AI

²⁴ J. Mark Munoz, Alka Maurya, *International Perspectives on Artificial Intelligence* 136 (Anthem Press, United Kingdom, 2022).

²⁵ *Ibid.*

systems. This also means considering the environment and other living things that are a part of the human ecosystem, as well as adopting a sustainable strategy that will allow future generations to thrive.²⁶ The European Union emphasizes:

- Human oversight
- Transparency
- Risk-based AI governance
- Protection of fundamental rights

8 CONCLUSION

Medical efficiency and reproductive healthcare services could be greatly enhanced by artificial intelligence. However, uncontrolled AI use could jeopardise fundamental principles, including women's reproductive autonomy, equality, privacy, and dignity. Reproductive choice is increasingly acknowledged by Indian constitutional jurisprudence as a basic right under Article 21. As a result, AI technologies that impact reproductive healthcare must function within a constitutional framework that places a high priority on gender justice, human dignity, and bodily autonomy.

To guarantee that technological progress enhances rather than compromises women's reproductive rights, a balanced strategy is required. The responsible and rights-based application of artificial intelligence in reproductive healthcare requires appropriate constitutional protections, moral principles, and legal frameworks. Therefore, striking a balance between the growth of technology and the defence of women's fundamental rights is the constitutional task. Instead of being a tool for prejudice or control, AI should be used to empower people. To guarantee that AI-based reproductive technologies stay in line with the constitutional values of equality, dignity, privacy, and reproductive justice, effective regulation, ethical governance, data protection measures, accountability systems, and gender-sensitive policy frameworks are required. In conclusion, even if artificial intelligence has enormous potential to improve reproductive healthcare, its unchecked or prejudiced use could jeopardise women's constitutional rights. Therefore, to guarantee that technology advancement enhances rather than compromises women's

²⁶ *Ibid.*

reproductive freedom and autonomy in India, a human rights-oriented and constitutionally driven regulatory approach is crucial.