Artificial Intelligence and Juvenile Justice in India: A Socio-Legal Analysis of Algorithmic Decision-Making, Child Rights, and Ethical Governance

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Abstract
The increasing integration of artificial intelligence into governance and legal systems has generated significant interest in its potential application within the juvenile justice framework. This study examines the socio-legal implications of algorithmic decision-making in the administration of juvenile justice in India, with particular emphasis on child rights, rehabilitation, procedural fairness, and ethical governance. Adopting a doctrinal and analytical research methodology, the study critically reviews relevant legal provisions, policy documents, judicial principles, and contemporary scholarly literature concerning the use of artificial intelligence in justice delivery. The analysis explores the potential benefits of artificial intelligence, including improved efficiency, consistency in decision-making, risk assessment, and case management, while also identifying significant concerns relating to algorithmic bias, transparency, accountability, privacy, and the protection of children's rights. The findings reveal that although artificial intelligence can support evidence-based and efficient juvenile justice administration, excessive reliance on automated systems may undermine individualized assessment and the rehabilitative philosophy that underpins juvenile justice. The study further highlights the absence of a comprehensive regulatory framework governing the ethical use of artificial intelligence in juvenile justice institutions. It concludes that artificial intelligence should function as a supplementary decision-support mechanism rather than a substitute for judicial discretion and human oversight. The development of child-centric ethical standards, legal safeguards, transparency mechanisms, and accountability frameworks is essential to ensure that technological innovation remains consistent with constitutional values, due process requirements, and the best interests of children.

Keywords: Artificial intelligence, Juvenile Justice, Algorithmic Decision-Making, Child Rights, Ethical Governance, Socio-Legal Analysis.

1. Introduction:
Artificial Intelligence (AI) has emerged as a transformative technology with significant implications for governance, public administration, and the administration of justice. Through machine learning, predictive analytics, and automated decision-support systems, AI is increasingly being utilized to enhance efficiency, consistency, and evidence-based decision-making. While these technological developments offer considerable benefits, they also raise important legal, ethical, and human rights concerns, particularly when applied to vulnerable groups such as children.

The juvenile justice system differs from the adult criminal justice system in its emphasis on rehabilitation, reintegration, care, protection, and the best interests of the child. In India, the Juvenile Justice (Care and Protection of Children) Act, 2015 provides a child-centric legal framework aimed at promoting the welfare and social reintegration of children in conflict with law. The growing interest in integrating AI-assisted technologies into justice administration has prompted discussions regarding their potential role in juvenile justice processes, including case management, risk assessment, rehabilitation planning, and decision support.

Previous studies have examined the use of AI in criminal justice systems and identified both opportunities and challenges associated with algorithmic decision-making. Existing literature highlights the potential of AI to improve administrative efficiency and consistency while simultaneously raising concerns regarding algorithmic bias, transparency, accountability, privacy, and procedural fairness. Scholars have further emphasized that excessive reliance on automated systems may undermine individualized assessments that are central to the rehabilitative philosophy of juvenile justice. However, limited research has specifically explored these issues within the context of the Indian juvenile justice system.

Against this backdrop, the present study examines the intersection of Artificial Intelligence and juvenile justice in India from a socio-legal perspective. It seeks to analyze the potential applications of algorithmic decision-making, evaluate its implications for child rights and ethical governance, and assess the adequacy of existing legal safeguards. The study further aims to identify regulatory and policy measures necessary to ensure that technological innovation remains consistent with constitutional principles, due process requirements, and the best interests of the child.

2. Review of Literature:

2.1. Juvenile Justice, Child Rights, and Rehabilitation

The existing literature on juvenile justice consistently emphasizes the reformative and rehabilitative philosophy underlying the treatment of children in conflict with law. Scholars generally agree that juvenile delinquency is influenced by a combination of social, economic, familial, educational, and psychological factors rather than inherent criminal tendencies. Consequently, modern juvenile justice systems prioritize rehabilitation, reintegration, counselling, educational support, vocational training, and community-based interventions over punitive approaches.

Studies by Dev and Kumar (2025), Mahajan and Tigga (2024), Sharma (2024), and others highlight the significant role of poverty, family disintegration, inadequate parental supervision, social deprivation, and peer influences in contributing to juvenile delinquency. Similarly, legal scholars such as Chandel and Prasad (2023) emphasize that the Juvenile Justice (Care and Protection of Children) Act, 2015 is firmly grounded in restorative justice, rehabilitation, and social reintegration, requiring individualized and child-centred interventions rather than retributive sanctions.

The child rights literature further recognizes children in conflict with law as rights-bearing individuals entitled to dignity, protection, participation, development, privacy, and fair treatment throughout legal proceedings. Scholars including Singhal and Srivastava (2019), Kabra and Panigrahi (2020), and Ved Kumari (2024) argue that juvenile justice processes must prioritize the best interests of the child while safeguarding constitutional and international human rights standards. Their analyses highlight continuing concerns relating to due process protections, stigmatization, judicial transfer provisions, and the effective realization of child rights within the justice system.

Collectively, this body of literature establishes that juvenile justice administration must remain individualized, flexible, rehabilitative, and child-centric. However, relatively limited attention has been devoted to examining how emerging technologies, particularly artificial intelligence and algorithmic decision-making systems, may affect these foundational principles.

2.2. Technology, Artificial Intelligence, and Ethical Governance

The literature on child rights consistently recognizes children in conflict with law as rights-bearing individuals entitled to dignity, protection, participation, development, and fair treatment throughout legal proceedings. The child rights approach seeks to ensure that legal processes prioritize welfare, rehabilitation, and the best interests of the child while safeguarding constitutional and human rights protections.

Singhal and Srivastava (2019) argued that the primary objective of juvenile justice institutions should be the preservation of child welfare and rehabilitation rather than punishment. According to their analysis, legal procedures involving children must be designed to facilitate reintegration and prevent long-term stigmatization. Their work reinforces the principle that children require special legal protections due to their developmental vulnerabilities and evolving capacities.

Scholars have also critically examined specific provisions of the Juvenile Justice (Care and Protection of Children) Act, 2015. Kabra and Panigrahi (2020) questioned the provision permitting children aged sixteen to eighteen accused of heinous offences to be tried as adults under certain circumstances. They argued that this judicial transfer mechanism potentially weakens the reformative foundation of juvenile justice and may conflict with international child rights standards. Similarly, Ved Kumari (2024) traced the evolution of Indian juvenile jurisprudence from a welfare-oriented framework to a rights-based model and emphasized that constitutional protections and the statutory principle of the best interests of the child must remain central to all decision-making processes.

The reviewed literature demonstrates that despite progressive legal frameworks, significant challenges continue to impede the full realization of child rights within the juvenile justice system. While scholars have extensively examined issues relating to due process, constitutional safeguards, and child welfare, limited attention has been devoted to understanding how artificial intelligence and algorithmic decision-making may influence these protections and potentially reshape the rights of children in conflict with law.

2.3. Research Gap:

The reviewed literature demonstrates substantial scholarly engagement with juvenile justice, child rights, rehabilitation, and artificial intelligence governance. However, these themes have largely been examined independently. Limited socio-legal research has specifically explored how algorithmic decision-making may affect rehabilitation, procedural fairness, and child rights within the Indian juvenile justice framework. This study seeks to address this gap by examining the implications of artificial intelligence for juvenile justice administration and ethical governance in India.

3. Research Objectives:

3.1. To examine the potential applications of Artificial Intelligence in the juvenile justice system in India.

3.2. To analyse the implications of algorithmic decision-making for child rights, rehabilitation, and procedural fairness.

3.3. To evaluate the legal, ethical, and governance challenges associated with the use of Artificial Intelligence in juvenile justice.

4. Research Methodology:

The present study adopts a doctrinal and socio-legal research methodology. The research is exploratory and analytical in nature and is based primarily on secondary sources of data. Relevant information has been collected from statutes, judicial decisions, government reports, policy documents, academic books, peer-reviewed journal articles, and international instruments relating to juvenile justice, child rights, artificial intelligence, and algorithmic governance.

A qualitative content analysis approach has been employed to examine the legal, ethical, and socio-legal implications of Artificial Intelligence in juvenile justice administration. The study critically evaluates existing legal safeguards and emerging policy frameworks governing AI-assisted decision-making. Since Artificial Intelligence has not yet been formally integrated into India's juvenile justice system, the study focuses on

potential applications, opportunities, and challenges through doctrinal analysis and comparative examination of international experiences.

5. Concept of Artificial Intelligence and Algorithmic Decision-Making

Artificial Intelligence (AI) refers to computer systems capable of performing tasks that normally require human intelligence, such as learning, reasoning, and decision-making. Through machine learning and data analytics, AI can process large volumes of information and generate recommendations to support administrative and legal decision-making.

Algorithmic Decision-Making (ADM) involves the use of computer algorithms to analyse data and produce predictions, assessments, or recommendations that influence decisions. In the juvenile justice system, tools powered by artificial intelligence can assist with case management, risk evaluation, rehabilitation strategy development, and the oversight of minors who are in conflict with the law.

6. Potential Applications of Artificial Intelligence in Juvenile Justice: Emerging Opportunities in the Indian Context

The integration of Artificial Intelligence (AI) into India's justice delivery system is no longer merely a theoretical possibility. In recent years, a number of technology-driven initiatives have emerged, such as the Interoperable Criminal Justice System (ICJS), the National Judicial Data Grid (NJDG), and AI-enabled projects overseen by the Supreme Court of India, including SUPACE (Supreme Court Portal for Assistance in Court Efficiency) and SUVAS (Supreme Court Vidhik Anuvaad Software). These developments illustrate the increasing significance of digital technologies in the realm of judicial administration. While these initiatives are not explicitly aimed at juvenile justice, they reflect a wider institutional trend towards data-informed governance within the legal framework. As digital justice infrastructures continue to evolve, similar technologies may eventually interface with the juvenile justice framework. Therefore, it is important to examine both the opportunities and the safeguards associated with the use of AI in matters involving children in conflict with law.

6.1. Case Management: AI-assisted systems can support Juvenile Justice Boards, Child Welfare Committees, Special Juvenile Police Units, and child care institutions in maintaining digital records, organizing case files, tracking procedural timelines, and monitoring case progress. The objectives of the Interoperable Criminal Justice System (ICJS), which seeks to facilitate seamless information exchange among police, courts, prisons, prosecution agencies, and forensic institutions, demonstrate the potential benefits of integrated digital case management. If adapted with appropriate child-protection safeguards, similar technological frameworks could help reduce administrative delays, improve record management, and ensure timely disposal of juvenile cases while maintaining confidentiality requirements under the Juvenile Justice (Care and Protection of Children) Act, 2015.

6.2. Risk Assessment: AI-based analytical tools may assist authorities in identifying factors associated with juvenile offending, including family instability, school dropout, substance abuse, exposure to violence, and socio-economic deprivation. Drawing upon data-driven methodologies increasingly used in governance and criminal justice administration, AI systems could support early intervention strategies and help professionals assess individual circumstances more systematically. However, such tools must operate with transparency, fairness, and human oversight to prevent discriminatory outcomes arising from biased or incomplete datasets. Risk assessments should serve only as advisory inputs and must not substitute professional judgment or judicial discretion.

6.3. Rehabilitation Planning: The juvenile justice system in India is fundamentally rehabilitation-oriented. AI technologies may contribute to individualized rehabilitation planning by analysing educational, behavioural, psychological, and social information. Based on such analysis, AI systems could assist probation officers, counsellors, social workers, and Juvenile Justice Boards in recommending counselling services, vocational training, educational support, mental health interventions, and community-based rehabilitation measures. As judicial institutions increasingly explore AI-assisted tools such as SUPACE for research and administrative

efficiency, similar assistive technologies could eventually support evidence-based rehabilitation planning while preserving the child-centric principles underlying juvenile justice.

6.4. Monitoring and Evaluation: AI technologies may also facilitate the monitoring and evaluation of rehabilitation programmes and child welfare services. The growing use of data management platforms such as the National Judicial Data Grid (NJDG) illustrates the value of systematic data collection and performance monitoring within the justice sector. In the juvenile justice context, AI-enabled systems could analyse information relating to educational progress, behavioural development, counselling outcomes, and social reintegration. Such assessments may help authorities evaluate programme effectiveness, identify gaps in service delivery, and make informed policy decisions regarding resource allocation and institutional reforms. Nevertheless, the collection and processing of children's data must comply with strict privacy, confidentiality, and child-rights protections to prevent misuse and ensure ethical governance.

The potential application of AI within juvenile justice should therefore be understood not as a replacement for human decision-making, but as a carefully regulated assistive mechanism. As India continues to expand its digital justice infrastructure through initiatives such as ICJS, NJDG, SUPACE, and SUVAS, the possibility of extending AI-supported systems to juvenile justice becomes increasingly realistic. Consequently, the legal, ethical, and child-rights concerns discussed in this paper demand immediate attention rather than future speculation.

7. Legal Framework Governing AI in Juvenile Justice

The use of Artificial Intelligence in juvenile justice must operate within existing constitutional and international legal frameworks that protect the rights and welfare of children. Any deployment of AI-assisted technologies should remain consistent with principles of equality, dignity, privacy, due process, and the best interests of the child.

7.1. Constitutional Safeguards: The Constitution of India provides important safeguards that are relevant to the use of Artificial Intelligence in juvenile justice. Article 14 guarantees equality before the law and requires that AI systems do not produce arbitrary or discriminatory outcomes. Article 21 protects the right to life, dignity, and privacy, thereby requiring that the collection and processing of children's data be conducted in a lawful, fair, and proportionate manner. Article 21A recognizes the right to education, which supports rehabilitative and developmental approaches toward children in conflict with law. Further, Articles 15(3) and 39(e)–(f) empower the State to adopt special measures for the protection, welfare, and healthy development of children. Accordingly, any use of AI in juvenile justice must remain child-centric, rights-based, and rehabilitation-oriented.

7.2. Digital Personal Data Protection Act, 2023 and Protection of Children's Data

In addition to constitutional safeguards, the legal regulation of Artificial Intelligence in juvenile justice must be examined in light of India's Digital Personal Data Protection Act, 2023 (DPDP Act). The Act establishes the principal statutory framework governing the collection, processing, storage, and use of personal data in India. Its provisions are particularly significant in the context of juvenile justice because AI-assisted systems often depend upon the analysis of sensitive personal information relating to children, including educational records, behavioural assessments, family circumstances, psychological evaluations, and social background reports.

The DPDP Act accords special protection to children's personal data. Section 9 of the Act requires verifiable parental consent before the processing of a child's personal data and imposes additional obligations on entities handling such information. More significantly, the Act forbids data processing activities that are likely to negatively impact the welfare of a child. These provisions reflect the broader constitutional commitment to protecting children's dignity, privacy, and developmental interests.

The DPDP Act also raises important questions regarding the future use of AI-driven predictive tools in juvenile justice. Many AI systems rely upon continuous data collection, behavioural analysis, profiling, and risk prediction in order to generate recommendations. However, predictive profiling of children may create tension

with the child-protective objectives of the DPDP framework, particularly where algorithmic assessments involve tracking behavioural patterns or categorizing children according to perceived future risks. Such practices may contribute to stigmatization, reinforce existing social biases, and adversely affect a child's rehabilitation and reintegration.

Accordingly, any future deployment of Artificial Intelligence within the juvenile justice system must comply not only with constitutional guarantees under Articles 14 and 21 but also with the statutory safeguards established under the DPDP Act, 2023. AI systems should be designed in a manner that minimizes data collection, prevents unauthorized profiling, ensures informed consent where applicable, and protects children from adverse consequences arising from automated processing. The DPDP Act therefore serves as an important legal benchmark for evaluating the legitimacy and ethical acceptability of AI-assisted decision-making in juvenile justice.

7.3. International Child Rights Standards:

International legal instruments also provide significant guidance regarding the use of AI in matters affecting children. The United Nations Convention on the Rights of the Child (UNCRC), 1989 emphasizes the principles of non-discrimination, privacy, participation, development, and the best interests of the child. General Comment No. 24 (2019) of the UN Committee on the Rights of the Child stresses rehabilitation, diversion, and child-sensitive justice processes, underscoring the importance of individualized assessment in decisions involving children.

In addition, UNICEF's Policy Guidance on AI for Children (2021) advocates fairness, transparency, accountability, privacy protection, and child rights impact assessments in the development and use of AI systems. Similarly, the UNESCO Recommendation on the Ethics of Artificial Intelligence (2021) promotes a human-rights-based approach emphasizing transparency, explainability, non-discrimination, and meaningful human oversight. Collectively, these standards indicate that AI in juvenile justice should serve as a supportive tool while ensuring the protection of child rights and human dignity.

8. Comparative International Experiences

The growing use of Artificial Intelligence in justice and child welfare systems across different countries provides valuable insights into both the opportunities and challenges associated with algorithmic decision-making. Comparative experiences indicate that although AI has the potential to enhance efficiency and risk evaluation, it may also raise issues concerning bias, transparency, accountability, and human rights.

8.1. COMPAS (USA): The Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) is a risk-assessment tool used in parts of the United States to evaluate the likelihood of reoffending. Courts have used COMPAS scores to assist decisions relating to bail, sentencing, and supervision. However, the system has attracted criticism for alleged racial and socio-economic bias, raising concerns regarding fairness, transparency, and due process. The COMPAS experience highlights the risks of relying excessively on algorithmic assessments in legal decision-making.

8.2. PredPol (USA): PredPol is a predictive policing system designed to identify locations where crimes are likely to occur based on historical crime data. Although intended to improve resource allocation and crime prevention, critics argue that the system may reinforce existing patterns of over-policing in disadvantaged communities. The PredPol experience demonstrates how algorithmic systems can unintentionally reproduce historical inequalities when trained on biased datasets.

8.3. New Zealand Child Welfare Analytics: New Zealand has experimented with predictive analytics in child welfare administration to identify children who may be at risk of abuse or neglect. While the objective was to facilitate early intervention and child protection, concerns were raised regarding privacy, data protection, stigmatization, and the potential misuse of predictive assessments. These debates illustrate the importance of balancing technological innovation with the protection of children's rights and dignity.

8.4. Lessons for India: International experiences demonstrate that Artificial Intelligence should function as a decision-support tool rather than a substitute for human judgment. They highlight the need for transparency, accountability, regular audits, and safeguards against algorithmic bias. For India, where juvenile justice is founded on the principles of rehabilitation and the best interests of the child, AI systems must remain subject to meaningful human oversight and strong legal protections. Any future adoption of AI within the juvenile justice framework should prioritize child rights, procedural fairness, and ethical governance while avoiding the risks associated with automated and opaque decision-making.

9. Ethical and Socio-Legal Friction Points in India

The potential integration of Artificial Intelligence (AI) into India's juvenile justice system presents a complex intersection of technological innovation, child rights protection, constitutional values, and legal accountability. While AI-assisted technologies may improve administrative efficiency, support rehabilitation planning, and facilitate evidence-based decision-making, their deployment within a child-centred justice framework raises significant ethical and socio-legal concerns. Given that juvenile justice in India is guided by the principles of rehabilitation, reintegration, and the best interests of the child, any technological intervention must be carefully evaluated against these foundational objectives.

9.1. Child Rights and Individualized Justice: The use of AI-assisted tools in juvenile justice may affect several rights guaranteed to children, including the rights to equality, dignity, privacy, and fair treatment. Juvenile justice proceedings are intended to be individualized and responsive to the unique circumstances of each child. However, algorithmic systems often rely on generalized patterns derived from historical data, which may not adequately reflect individual experiences and social realities. Excessive reliance on automated assessments may undermine the individualized approach that forms the cornerstone of rehabilitative justice. Therefore, the best interests of the child must remain the primary consideration in all AI-assisted processes.

9.2. Algorithmic Bias and Social Inequality: One of the most significant concerns associated with AI systems is the possibility of algorithmic bias. AI models are only as reliable as the data on which they are trained. If historical datasets contain social, economic, regional, caste-based, gender-based, or other forms of structural bias, AI systems may unintentionally reproduce or amplify existing inequalities. In the Indian context, where children in conflict with law frequently come from economically and socially vulnerable backgrounds, biased algorithmic assessments may lead to unfair outcomes and further marginalization. Safeguards are therefore necessary to prevent discriminatory decision-making and ensure substantive equality.

9.3. Privacy, Data Protection, and Confidentiality: The operation of AI systems typically requires the collection, storage, and processing of large volumes of personal information. In juvenile justice matters, such information may include educational records, family circumstances, behavioural assessments, psychological evaluations, and social background reports. The handling of such sensitive information raises concerns regarding privacy, confidentiality, and data protection. Given the legal requirement to protect the identity and dignity of children in conflict with law, robust safeguards must be established to prevent unauthorized access, misuse, data breaches, or secondary uses of information that may adversely affect a child's future opportunities and social reintegration.

9.4. Transparency, Explainability, and Accountability: A further challenge arises from the limited transparency of many AI systems. Algorithmic decision-making processes are often difficult to understand, explain, or independently verify. Such opacity may create challenges for judicial accountability and procedural fairness, particularly when decisions significantly affect the rights and welfare of children. If an AI-generated recommendation influences a decision relating to rehabilitation, supervision, or intervention, stakeholders must be able to understand the basis of that recommendation. Transparency and explainability are therefore essential requirements for any responsible use of AI within the juvenile justice framework.

9.5. Human Oversight and Ethical Governance: The integration of AI into juvenile justice should occur within a framework of ethical governance that prioritizes fairness, accountability, transparency, privacy protection, and non-discrimination. AI-assisted tools must remain strictly advisory, ensuring that the final evaluative and judicial authority rests entirely with human professionals—such as judges, probation officers,

child welfare committees, and psychologists—who can interpret data through the lens of empathy, localized socio-economic context, and moral nuance.

Automated risk-scoring metrics or predictive algorithms must never replace the human element required to understand a child's psychological trauma, structural displacement, or familial despair. Cultivating an institutional culture of absolute "human-in-the-loop" oversight is paramount to ensuring that digital technologies serve as assistive instruments of rehabilitation rather than opaque systems of pre-emptive exclusion.

10. Findings and Discussion

The systemic integration of computational advancements into India's legal ecosystem—manifested through macro-level platforms like the Interoperable Criminal Justice System (ICJS), National Judicial Data Grid (NJDG), and the Supreme Court's trailblazing initiatives like SUPACE and SUVAS—signifies that data-driven judicial governance is rapidly transitioning from a theoretical policy roadmap into an active administrative baseline. However, this study finds that migrating these algorithmic and data-intensive technologies directly into the sensitive domain of juvenile justice, without establishing sector-specific, child-centric legal insulators, creates deep socio-legal friction points.

A primary finding of this research highlights an acute, unaddressed statutory contradiction between automated predictive tracking and India's data protection mandates. While algorithmic risk-assessment frameworks rely heavily on continuous data ingestion, behavioral profiling, and historical data accumulation to forecast recidivism probabilities, Section 9 of the Digital Personal Data Protection (DPDP) Act, 2023 explicitly bars data fiduciary practices that are likely to cause an "adverse effect" on the well-being of a child, alongside placing stringent curbs on behavioral tracking and targeted profiling.

Furthermore, comparative international experiences—such as the racially skewed outcomes of the COMPAS risk-assessment tool in the United States and the localized pushbacks against predictive analytics in New Zealand's child welfare models—demonstrate that algorithms trained on historical data inevitably replicate and amplify entrenched structural inequities. In the Indian socio-legal context, where a vast, disproportionate majority of children in conflict with law belong to economically marginalized families, under-resourced communities, or historically over-policed demographics, an over-reliance on predictive analytics threatens to institutionalize systemic bias under the guise of technological neutrality.

Consequently, this study emphasizes that while digital infrastructures can safely and effectively streamline neutral administrative actions (such as case file tracking or vernacular language translations via SUVAS), any automated tool designed to evaluate a child's mental state, reformative capacity, or psychological maturity under high-stakes provisions—such as the preliminary assessment under Section 15 of the Juvenile Justice Act, 2015—must be strictly restricted and remain perpetually subject to an absolute human veto.

11. Conclusion

This study has provided a comprehensive socio-legal analysis of the interface between Artificial Intelligence, algorithmic decision-making, and juvenile justice administration in India. As the country's legal apparatus edges closer toward a tech-enabled "Justice 5.0" paradigm, the deliberate automation of administrative workflows offers clear, quantifiable benefits: it can reduce procedural delays, resolve systemic case backlogs within Juvenile Justice Boards (JJBs), eliminate fragmented paper trials through secure digital record systems, and optimize resource distribution across institutional child care frameworks.

Nevertheless, the foundational philosophy of Indian juvenile jurisprudence—which is unshakeably grounded in restorative justice, radical individualization of care, and the paramountcy of the "best interests of the child"—cannot be compressed into mathematical variables or binary logic. Algorithmic governance models naturally operate on statistical aggregates, past probabilities, and historical correlations, whereas genuine juvenile

rehabilitation demands absolute institutional flexibility, structural empathy, and a deep understanding of evolving capacities.

To prevent emerging digital architectures from inadvertently transforming juvenile welfare into an automated, punitive tracking mechanism, India must institute a defensive, child-first regulatory benchmark. Artificial Intelligence must remain a strictly subordinate, fully transparent, and ethically audited decision-support tool. It must never be permitted to erode judicial discretion, replace the cognitive evaluation of child specialists, or bypass the categorical child-privacy guardrails established by the DPDP Act, 2023.

12. Suggestions and Recommendations

To operationalize a robust, legally sound, and ethically compliant framework for the deployment of AI within the Indian juvenile justice system, the following multi-pronged strategic measures are recommended:

- **Mandate Pre-Deployment Child Rights Impact Assessments (CRIA):** No AI-driven software, data analytics model, or administrative platform should be integrated into Juvenile Justice Boards (JJBs) or Child Care Institutions (CCIs) without undergoing an independent, multidisciplinary CRIA to identify potential risks to child psychology, dignity, and personal data privacy.
- **Enforce Harmonization with Section 9 of the DPDP Act, 2023:** Any digital database or tracking interface operating within the juvenile justice framework must be engineered with privacy-by-design principles. Continuous behavioral profiling, targeted algorithmic tracking, and predictive scoring of children must be prohibited to prevent long-term digital stigmatization.
- **Codify an Unconditional "Human-Veto" Rule:** Algorithmic risk-assessment outputs must be statutorily classified as non-binding, advisory metrics. Automated data pipelines must be legally barred from exercising final discretion regarding a child's bail eligibility, institutional detention, or the critical transfer to adult courts under Section 15 of the Juvenile Justice Act.
- **Implement Explainable AI (XAI) and Vernacular Transparency:** "Black-box" algorithms, where the internal processing logic is hidden from user scrutiny, must be entirely banned from judicial workflows. AI recommendations must be fully explainable, transparent, and seamlessly integrated with translation frameworks like SUVAS to ensure that juveniles, guardians, and defense counsels can comprehend, evaluate, and legally contest the algorithmic rationale.
- **Institute Regular Empirical Audits for Structural Bias:** Technical systems must undergo periodic independent audits to ensure that proxy variables within datasets (such as neighborhood data, income levels, or family structures) are not acting as hidden conduits for caste, regional, or socio-economic discrimination against vulnerable youth.
- **Formulate Inter-Agency Rule-Making for the "Right to be Forgotten":** The Data Protection Board of India (DPBI), in active coordination with the Ministry of Women and Child Development, should draft a specialized regulatory code governing the automated erasure, sealing, and destruction of juvenile digital records upon their attainment of majority, ensuring an unhindered path toward complete social reintegration.

References

- https://www.sentencingproject.org/reports/why-youth-incarceration-fails-an-updated-review-of-the-evidence/
- https://www.indiacode.nic.in/bitstream/123456789/8864/1/201602.juvenile2015pdf.pdf
- Chandel, A., & Prasad, R. (2023). Juvenile justice and rehabilitative approaches in India. *Indian Journal of Law and Society*, 14(2), 45–61.
- Committee on the Rights of the Child. (2019). *General Comment No. 24 (2019) on children's rights in the child justice system*. United Nations.
- Digital Personal Data Protection Act, 2023 (India).

- Dev, S., & Kumar, A. (2025). Socio-economic determinants of juvenile delinquency and rehabilitation in India. *Journal of Social Justice Studies*, 12(1), 34–52.
- Eubanks, V. (2018). *Automating inequality: How high-tech tools profile, police, and punish the poor*. St. Martin's Press.
- Government of India. (2015). *The Juvenile Justice (Care and Protection of Children) Act, 2015*. Ministry of Law and Justice.
- Kabra, S., & Panigrahi, P. (2020). Juvenile transfer provisions and child rights concerns under the Juvenile Justice Act, 2015. *Indian Journal of Constitutional Law*, 8(1), 87–102.
- Keddell, E. (2019). Algorithmic justice in child protection: Statistical fairness, social justice and the implications for practice. *Social Sciences*, 8(10), 281.
- Kumari, V. (2024). *Juvenile justice in India: From welfare to rights-based approaches*. Eastern Book Company.
- https://www.loeb.com/en/insights/publications/2023/08/a-roundup-of-state-laws-related-to-childrens-privacy
- https://www.sciencedirect.com/science/article/pii/S0893395224002667
- Mahajan, N., & Tigga, R. (2024). Social marginalization and juvenile offending: A study of vulnerable youth in India. *Indian Journal of Criminology*, 52(1), 77–94.
- Mugamba, R. (2026). Child-centred artificial intelligence governance and human rights protection. *International Journal of Law and Technology*, 18(2), 101–120.
- O'Neil, C. (2016). *Weapons of math destruction: How big data increases inequality and threatens democracy*. Crown Publishing.
- Pasquale, F. (2015). *The black box society: The secret algorithms that control money and information*. Harvard University Press.
- Sharma, P. (2024). Family environment, social deprivation and juvenile risk behaviour in India. *Journal of Child and Youth Studies*, 11(3), 55–70.
- Singhal, R., & Srivastava, M. (2019). Child welfare and rehabilitation within the juvenile justice framework. *Indian Journal of Social Work*, 80(4), 521–536.
- UNESCO. (2021). *Recommendation on the ethics of artificial intelligence*. Paris: UNESCO.
- UNICEF. (2021). *Policy guidance on AI for children*. New York: UNICEF.
- United Nations. (1989). *Convention on the Rights of the Child*. New York: United Nations.
- Yu, H., & Rose, J. (2026). Algorithmic decision-making in child welfare systems: Fairness, accountability and transparency challenges. *Journal of AI and Society*, 41(1), 67–84.
- Why Youth Incarceration Fails: An Updated Review of the Evidence. (2023). *The Sentencing Project*. Retrieved from https://www.sentencingproject.org/reports/why-youth-incarceration-fails-an-updated-review-of-the-evidence/

- https://www.tandfonline.com/doi/full/10.1080/0270319X.2026.2617784
- https://www.facebook.com/61575243662592/posts/artificial-intelligence-ai-in-government-is-rapidly-transforming-public-services/122109125540841455/
- https://www.indiacode.nic.in/bitstream/123456789/8864/1/201602.juvenile2015pdf.pdf