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## RESTORATIVE JUSTICE IN THE DIGITAL ERA: AI-ASSISTED MEDIATION AND ITS ETHICAL CHALLENGES

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### ABSTRACT

Restorative justice, as an alternative to retributive paradigms, prioritizes discourse, accountability, and harm repair through participatory processes including victims, offenders, and communities. In the digital age, the incorporation of artificial intelligence (AI) into mediation methods has opened up new avenues for improving accessibility, efficiency, and consistency in restorative justice systems. AI-assisted mediation makes use of technology like natural language processing, machine learning, and predictive analytics to improve communication, identify dispute trends, and encourage structured discourse.

This study investigates the expanding role of artificial intelligence in restorative justice, concentrating on its use in mediation processes. It critically examines how AI might serve as a support tool rather than a replacement for human mediators, keeping the human-centered essence of restorative practices. At the same time, the study identifies and examines key ethical issues associated with AI-assisted mediation, such as algorithmic bias, a lack of transparency, threats to autonomy and informed consent, data privacy concerns, and AI's limitations in understanding emotional and cultural nuance. The paper continues by underlining the importance of strong ethical principles, human oversight, and regulatory frameworks in ensuring that AI-assisted mediation aligns with the core objectives of restorative justice in a rapidly developing legal world.

**Keywords:** Restorative Justice, Artificial Intelligence, AI-Assisted Mediation, Ethics in Justice Delivery, Digital Dispute Resolution.

## **1. INTRODUCTION**

As a paradigm shift of punitive paradigms, restorative justice involves harm-oriented procedures and the restoration of broken relationships by means of voluntary victim-offender conversation, community engagement, and offender responsibility as stipulated by the fundamental tenets of encounter, reparation and reintegration. Given the rise in online conflict and post-pandemic demand, the digital era has brought about AI-assisted mediation, where algorithms are utilised to match cases, provide discussion prompts, facilitate virtual sessions, and track outcomes to further improve accessibility and efficacy. Though in theory offering scalability to overweight justice systems, specifically in heterogeneous settings such as India, this integration also profoundly makes questions of ethics, such as bias in particular algorithms due to biased training data, the lack of transparency in black box decision-making, the loss of human empathy as a component of restorative healing, vulnerability to privacy in the context of such systems as the DPDP Act 2023, and marginalization of digitally disadvantaged groups. This article discusses the application of AI in the process of restorative mediation, and evaluates these ethical dilemmas through the prism of fairness, transparency, and human dignity, and suggests models of hybrid governance to make sure that technology does not replenish but complements the relational essence of justice.

## **OBJECTIVE OF THE STUDY**

1. To examine the role of Artificial Intelligence in facilitating restorative justice processes.
2. To critically analyse the ethical challenges arising from AI-assisted mediation.
3. To propose a normative ethical and regulatory framework.

## **2. CONCEPTUAL FRAMEWORK**

### **2.1 RESTORATIVE JUSTICE: MEANING AND PRINCIPLES**

Restorative justice shifts criminal procedures toward restoring wrongs committed by criminal actions, perceiving crime as a subjective violation as opposed to a violation of the rule. The core values are repair, which focuses on restitution and victim validation; participation, which empowers the stakeholders by engaging in voluntary dialogue; accountability, which demands

offenders to comprehend and remedy harms without vengeance and reintegration, which helps offenders heal and reintegrate into society<sup>1 2 3 4</sup>.

## 2.2 ARTIFICIAL INTELLIGENCE IN JUSTICE SYSTEMS

AI is incorporated into justice through NLP for analysing legal texts and producing mediation prompts, ML for pattern identification in case matching, and predictive analytics for forecasting outcomes such as recidivism or mediation success. In dispute resolution, AI solutions automate triage, facilitate virtual ODR platforms, and support restorative mediation by suggesting agreements, hence increasing efficiency in high-volume systems. However, these are based on historical data, which may introduce biases that hinder restorative equity<sup>5 6 7 8 9</sup>. AI encompasses diverse technologies revolutionising justice systems, such as Natural Language Processing (NLP) for interpreting vast legal corpora, sentiment detection in communications, and automated drafting of agreements; Machine Learning (ML) for training models on case histories to classify disputes, predict mediator matches, or personalise interventions; and predictive analytics for forecasting litigation risks, settlement probabilities, or offender rehabilitation. These technologies interface with platforms such as generative AI, allowing for scalable analysis across e-courts and ODR ecosystems, which is especially important in overburdened jurisdictions like India<sup>10 11</sup>. AI supports Online Dispute Resolution (ODR) in dispute resolution by automating initial assessments, simplifying asynchronous negotiations, and providing data-driven compromises, as seen in global platforms dealing with consumer and family conflicts. In the context of mediation, artificial intelligence (AI) enhances human mediators in hybrid models while resolving backlogs under frameworks such as India's

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<sup>1</sup> <https://www.justice.gc.ca/eng/rp-pr/cj-jp/victim/rest.html> (last visited on Feb. 16, 2026)

<sup>2</sup> <https://restorativejustice.org/what-is-restorative-justice/three-core-elements-of-restorative-justice/> (last visited on Feb.16, 2026)

<sup>3</sup> <https://www.open.edu/openlearn/money-business/leadership-management/justice-fairness-and-mediation/content-section-3.1> (last visited on Feb. 16, 2026)

<sup>4</sup> <https://rjcolorado.org/restorative-justice-defined/principles-and-values/> (last visited on Feb.16, 2026)

<sup>5</sup> Romero Seseña, P. [Pablo] (2024). Applicability and uses of the online environment in restorative mediation: towards a digital restorative justice?. *Current Issues in Criminal Justice*

<sup>6</sup> <https://indiaai.gov.in/article/ai-and-alternative-dispute-resolution-adr-automating-arbitration-and-mediation> (last visited on Feb. 17, 2026)

<sup>7</sup> <https://www.icsi.edu/media/webmodules/CSJ/December-2024/17.pdf> (last visited on Feb. 17, 2026)

<sup>8</sup> <https://jgu.edu.in/mappingADR/artificial-intelligence-and-the-future-of-online-dispute-resolution-in-india/> (last visited on Feb. 17, 2026)

<sup>9</sup> <https://www.linkedin.com/pulse/role-ai-restorative-justice-reforming-criminal-systems-bizz-o-tech-4nwlf> (last visited on Feb. 17, 2026)

<sup>10</sup> <https://indiaai.gov.in/article/ai-and-alternative-dispute-resolution-adr-automating-arbitration-and-mediation> (last visited on Feb. 17, 2026)

<sup>11</sup> <https://www.cpr.in/wp-content/uploads/2021/05/PREDICTIVE-JUSTICE-USING-AI-FOR-JUSTICE-2.pdf> (last visited on Feb. 17, 2026)

Mediation Act 2023. AI promotes restorative processes through virtual facilitators, bias-flagged dialogue prompts, real-time result simulations, and post-session evaluations. Applications range widely, from ethical AI principles that ensure openness in high-stakes restorative conversations to predictive justice tools like SUPACE for case prioritization<sup>12 13 14 15 16 17 18 19</sup>.

### 3. AI-ASSISTED MEDIATION IN THE DIGITAL ERA

AI-assisted mediation refers to the use of AI tools to assist human mediators in fostering discourse to resolve disputes, particularly in restorative justice, by automating administrative work, analysing communications, and recommending resolutions without making autonomous decisions. Its scope ranges from virtual ODR platforms for low-complexity cases to hybrid restorative processes that enhance victim-offender contacts, hence improving worldwide accessibility despite digital barriers<sup>20 21 22 23</sup>. Types of tools include NLP-driven chatbots for empathetic prompting and sentiment analysis, ML algorithms for case prioritization and pattern detection, or generative AI for summarizing sessions or drafting agreements. Tools include real-time transcription, predictive outcome modelling, and bias-detection overlays such as those piloted in India to make the judicial process more efficient<sup>24 25 26</sup>. AI acts as an assistive rather than a decision making tool, by performing data-intensive tasks such as assembling evidence and measuring affect to relieve mediators of “grunt work” in order to be more empathetic and dexterous (and does not replace human oversight under ethical guidelines)<sup>27</sup>. AI

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<sup>12</sup> <https://indiaai.gov.in/article/ai-in-judicial-processes-transforming-india-s-legal-system> (last visited on Feb. 17, 2026)

<sup>13</sup> *Ibid.*

<sup>14</sup> <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2106239&reg=3&lang=2> (last visited Feb. 17, 2026)

<sup>15</sup> *Ibid.*

<sup>16</sup> <https://www.pon.harvard.edu/daily/mediation/ai-mediation-using-ai-to-help-mediate-disputes/> (last visited on Feb. 17, 2026)

<sup>17</sup> <https://www.ibanet.org/document?id=Guidelines-on-the-use-of-generative-AI-in-mediation> (last visited Feb. 17, 2026)

<sup>18</sup> <https://edwardsmediationacademy.com/artificial-intelligence-in-mediation-what-the-future-holds-for-mediators/> (last visited on Feb. 17, 2026)

<sup>19</sup> <https://civilmediation.org/mediation-and-ai-digital-age/> (last visited on Feb. 17, 2026)

<sup>20</sup> <https://www.ibanet.org/document?id=Guidelines-on-the-use-of-generative-AI-in-mediation> (last visited on Feb. 17, 2026)

<sup>21</sup> <https://restorativ.co/blog/posts/chatbots-and-generative-ai-in-restorative-justice> (last visited on Feb. 17, 2026)

<sup>22</sup> <https://iamed.org/artificial-intelligence-in-mediation/> (last visited on Feb. 17, 2026)

<sup>23</sup> <https://pollackpeacebuilding.com/blog/ai-driven-mediation/> (last visited on Feb. 17, 2026)

<sup>24</sup> <https://www.cpradr.org/news/practical-applications-of-ai-in-mediation-cpr-committee-meeting-highlights> (last visited on Feb. 17, 2026)

<sup>25</sup> *Ibid.*

<sup>26</sup> *Ibid.*

<sup>27</sup> *Ibid.*

improves restorative processes by facilitating scalable discussions, early conflict detection, inclusive virtual access for remote participants, and data insights for targeted reparations, potentially lowering recidivism through structured responsibility. It streamlines high-volume cases while maintaining relational repair<sup>28</sup>.

#### **4. ETHICAL, LEGAL AND GOVERNANCE DIMENSIONS OF AI-ASSISTED MEDIATION**

The incorporation of artificial intelligence (AI) into restorative justice processes raises difficult ethical concerns. While AI-assisted mediation improves speed and accessibility, it also risks eroding restorative justice's fundamental values, such as fairness, voluntariness, dignity, accountability, and relational healing. This section critically discusses the primary ethical considerations surrounding AI-assisted mediation.

##### **4.1 Algorithmic Bias and Fairness**

Algorithms become biased when AI algorithms generate systematically biased results through biased source data, poor design or inherent biases in society. Because AI systems are based on historical data, they can recreate structural discrimination that exists in justice systems. In restorative justice, equality takes the centre stage. When the AI solutions applied in screening the case, risk assessment, or prediction of outcome are biased in terms of socio-economic, racial, or gender factor, they can alter the process of restorative actions. For example: On the basis of biased data, predictive tools can classify some individuals as being high-risk. The expression of sentiments may be misunderstood by the sentiment analysis model. Computer-generated suggestions can be biased against this marginalization. Contrary to the conventional adjudication, restorative justice relies on the trust and perceived procedural justice. Although it is hard to overlook even minor algorithmic bias in an algorithm, it can damage the confidence of participants. Thus, the necessary protective measures include fairness audits, varied datasets, and an ongoing tracking.

##### **4.2 Transparency and Explainability**

A lot of AI is the black box where the decision-making process is obscure and hard to explain.

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<sup>28</sup> <https://blogs.psico-smart.com/blog-the-impact-of-restorative-justice-approaches-on-mediation-outcomes-178752> (last visited on Feb. 17, 2026)

In the mediation process, the parties should know how decisions or proposals are made. Restorative justice lays stress on openness, understanding and responsibility. In case AI gives advice without a justifiable cause: Participants are likely to be manipulated or left out. Mediators can use outputs that they are not able to interpret to the fullest. Credibility of the validity of the procedure can erode. In the restorative setting, explainable AI (XAI) mechanisms play an important role. The outputs of an algorithm have to be readable, understandable, and capable of communication in a normal language. Transparency will ensure that AI is not an authority that cannot be questioned but a helpful tool.

### **4.3 Autonomy, Consent, and Voluntariness**

The procedures of restorative justice are based on informed consent and voluntary participation. These principles are complicated with the introduction of AI.

#### **Key concerns include:**

- I. The participants do not realize the effect of AI on the process properly.
- II. Decision making may implicitly be influenced by relying on algorithmic recommendations.
- III. Electronic spaces can force the sides into submission.

#### **True autonomy requires:**

- I. Transparency in the use of AI.
- II. Learned consent to data use and algorithm support.
- III. The possibility to refuse AI-mediation.

AI should not infringe on agency among the participants or endanger the human-centred nature of restorative justice.

### **4.4 Data Privacy and Confidentiality**

Restorative justice meetings entail highly personal revelations, emotional experiences, trauma narratives, and confessions of wrongdoing. A system such as AI needs to be fed with

information, which poses significant ethical issues on privacy and confidentiality.

Risks include:

- I. Hackings or data violations.
- II. Sensitive information being used in the secondary sense.
- III. Retention of data more than required.
- IV. Surveillance or profiling via the internet.

Powerful data governance structures are hence a necessity. Provided necessary safeguards are:

- I. Hypothesis of minimum data.
- II. End-to-end encryption.
- III. Safety and limited access.
- IV. Well-defined retention and deletion policies.

Unless well-guarded, AI-based mediation may jeopardize the confidentiality that is at the heart of restorative dialogue.

#### **4.5 Limitations of AI in Emotional and Cultural Contexts**

Restorative justice is relational and is rooted in emotional and cultural situations. The AI systems, even though there have been improvements in the area of emotion recognition, sentiment analysis, etc. lack authentic emotions, moral reasoning and cultural sensitivity.

Limitations include:

- I. Misunderstanding of non-verbal communication.
- II. Failure to focus on the contextual nuances.
- III. Inability to understand cultural remorse and apology or reconciliation.

IV. Excesses in the use of linguistic patterns without the experience of life.

Restorative dialogue also contains silence, emotional pauses, and gestures, which the AI would fail to interpret in a meaningful manner. Excessive automation is dangerous since it can turn the process of restoration into a set of formalities to be performed instead of a transformative experience.

## **5. ETHICAL, LEGAL AND GOVERNANCE DIMENSIONS OF AI-ASSISTED MEDIATION**

The incorporation of artificial intelligence (AI) into restorative justice procedures raises a complicated set of ethical, legal, and institutional issues. While AI-assisted mediation improves speed and accessibility, it also raises issues about the fundamental values of restorative justice—fairness, voluntariness, dignity, and relationship healing. This chapter examines ethical issues, regulatory gaps, comparable practices, and the need for responsible governance.

### **5.1 Ethical Challenges of AI-Assisted Mediation**

AI-assisted mediation presents several ethical challenges that necessitate thorough examination.

- **Algorithmic Bias and Fairness:** AI systems are dependent on historical data, which may contain systemic biases. In the context of restorative justice, such biases can distort outcomes, reinforce inequalities, and undermine trust in the process. Ensuring fairness requires ongoing auditing, diverse datasets, and corrective mechanisms.
- **Transparency and Explainability:** The opacity of algorithmic decision-making poses a challenge to the principle of openness in restorative justice. Participants must comprehend how AI generates suggestions. Explainable AI is crucial to maintaining trust and procedural legitimacy. **Autonomy, Consent, and Voluntariness:** Restorative justice is predicated on voluntary participation. The involvement of AI must be disclosed, and participants should retain the right to informed consent and the option to opt out. Excessive reliance on AI may subtly influence decision-making, thereby compromising autonomy.
- **Data Privacy and Confidentiality:** Mediation processes involve sensitive personal

disclosures. AI systems raise concerns regarding data misuse, breaches, and surveillance. Robust data protection frameworks, encryption, and stringent data governance policies are essential.

- **Limitations in Emotional and Cultural Contexts:** AI lacks genuine empathy, moral reasoning, and cultural sensitivity. Restorative justice relies on emotional engagement and contextual understanding, which AI cannot fully replicate. Over-automation risks reducing deeply human processes to mechanical interactions.

## 5.2 Legal and Regulatory Concerns

The rules for using AI in mediation are not clear and are still developing. Current laws mostly focus on data protection and digital rules. They do not specifically cover AI in mediation or justice. There are gaps in the law about: Who is responsible for AI decisions, ethical use of AI in mediation, transparency, and preventing discrimination by algorithms. This lack of rules creates uncertainty and risks. We need specific rules for AI to ensure it follows justice principles. These rules should include Ethical guidelines for using AI, required human oversight, accountability for algorithms, and independent checks and compliance systems. Around the world, there is more use of AI in resolving disputes and digital justice. Many places are using Online Dispute Resolution (ODR) platforms with AI for mediation. These systems aim to make access easier and reduce case backlogs. Best practices include Keeping humans in control, transparent algorithms, strong data protection, and inclusive design to reduce bias. The global experience shows that AI should help, not replace, human decision-making. Justice systems should focus on human dignity, cultural sensitivity, and dialogue, not just technology. The incorporation of AI into restorative justice creates a fundamental contradiction between technical advancement and human-centered justice.

## 5.3 Balancing Efficiency with Restorative Values:

While AI enhances procedural efficiency and accessibility, it must not jeopardize the relational and dialogic aspect of restorative justice.

### Risks of Over-Automation:

Overreliance on artificial intelligence may:

- undermines human empathy

- Reduce meaningful participation.
- Create dependencies on algorithmic outcomes.

### **Role of Human Oversight and Ethical Design:**

Human mediators must remain at the centre of the process. Artificial intelligence development should be guided by ethical design concepts such as justice, openness, and accountability. A "human-in-the-loop" strategy ensures that AI augments, rather than replaces, human judgment.

## **6. RECOMMENDATIONS AND CONCLUSION**

The use of Artificial Intelligence (AI) in restorative justice mediation is changing modern justice systems. AI-assisted mediation has benefits like being more accessible, efficient, and providing data insights. However, it must be used carefully to keep the core values of restorative justice, such as fairness, dignity, voluntariness, and human interaction. Ethical and legal challenges need to be addressed with a set of recommendations and reflections.

First, there is a need for clear ethical guidelines for AI-assisted mediation. These guidelines should ensure fairness, prevent discrimination, and promote transparency and accountability. AI systems should be checked regularly to remove bias, and their operations should be clear to everyone involved to maintain trust.

Human oversight is also crucial. AI should work under a "human-in-the-loop" model, where human mediators make the final decisions. Restorative justice relies on relationships and cannot be fully automated. Human judgment, empathy, and sensitivity are needed for the emotional, cultural, and moral aspects of mediation, which AI cannot provide.

Another important recommendation is to strengthen data protection and privacy. Since sensitive information is shared during mediation, strong measures like data minimization, encryption, informed consent, and strict data retention policies are necessary. Participants should control their data and know how it is used.

Legally, there is a need for new policies and regulations for using AI in mediation and restorative justice. Current laws do not adequately cover algorithmic decision-making, accountability, and ethics in this area. Governments and institutions should create specific

regulatory standards, including oversight, grievance handling, and liability.

Additionally, training mediators and legal professionals is important for the responsible use of AI tools. Understanding AI's limitations, risks, and ethical issues will help practitioners use technology without compromising restorative values.

To summarize, AI-assisted mediation holds great promise for advancing restorative justice in the digital age, notably by increasing access and procedural efficiency. However, unquestioning adoption may undermine the very ideas it attempts to uphold. Restorative justice must remain inherently human-centered, with AI acting only as a facilitator rather than a replacement for human connection. The future of digital restorative justice hinges on striking a delicate balance between technological innovation and ethical accountability. AI can make a significant contribution to a more inclusive, responsive, and humane judicial system when properly safeguarded, governed transparently, and overseen by humans.