
CONVERGENCE OF TECHNOLOGY AND LAW EQUILIBRATING AI FOR JUSTICE AND CHILD PROTECTION

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ABSTRACT

A prerequisite in the modern era is computer technologies, which have continued gaining momentum with each groundbreaking development. As part of a generation that has undergone avant-garde progress in fostering technological convenience, the legal system also needed the implementation of such dynamic innovation into its framework. Crimes against children have been unrelenting and ubiquitous, which would present a dual-edged sword for society with the onset of technology. On one end of the spectrum, there exists the peril of online child pornography and cyber-related crimes; on the flip side, the application of AI can facilitate the generation of significant information regarding the exploitation of minors, identifying spurious images and videos through the analysis of digital data, employing AI-driven systems alongside other specialized tools to categorize the data and detect recordings and images that illustrate the sexual abuse of minors.

This paper explores the multifaceted role of AI in combating crimes against children, with a focus on India's Protection of Children from Sexual Offences (POCSO) Act 2012. Global initiatives, such as the United Nations' AI for Safer Children (AI4SC) schemes, highlight the international consensus on leveraging AI for child protection while underscoring the necessity of ethical safeguards to uphold privacy and human rights.

Despite its transformative potential, the utilization of AI in the legal realm necessitates stringent ethical frameworks to prevent misuse, ensure transparency, and protect vulnerable populations. This paper also addresses the challenges posed by AI-generated content and the need for legislative and regulatory measures to navigate the complexities of AI ethics in law enforcement. Ultimately, the convergence of technology and law, exemplified by India's pioneering adoption of AI in legal research and child

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protection, demonstrates the potential of AI to enhance justice delivery while safeguarding the welfare of society's most vulnerable members.

Keywords: POCSO ACT 2012, children, child sexual abuse, AI technologies.

Introduction

For all intents and purposes, Artificial intelligence (AI) is the process by which computer systems generate judgments efficiently and frequently—often without having the assistance of humans by applying computations, or an ensemble of instructions. They can make an extensive number of recommendations expeditiously since they operate instantaneously.³ Artificial intelligence has long been present in the judicial system and is only going to become more so in the future. AI has an enormous effect on the legal administration system, having a major consequence on many other legal justice procedures, judicial and penitentiary networks, as well as criminality surveillance and deterrence. It is easy to see how artificial intelligence is affecting criminal justice and public safety, from transport welfare operations to offense projections, criminal trend recognition, and more. Robots, unmanned aerial aircraft, and other innovations give law agencies context and conditional knowledge immediately amid crime investigations. Artificial intelligence (AI) helps evaluate massive volumes of informational evidence to find offenses that could have remained undetected before.⁴ AI is also used in courts to evaluate case laws, suggest penalties, and aid jurors in deciding whether to grant bail, impose a penalty, or imprison a defendant.⁵ The application of AI in the judicial system is developing quickly, improving court processes, violence tracking, and prohibition, while also influencing how regulatory agencies engage with the system.⁶

Deciphering Artificial Intelligence

John McCarthy, the father of AI, coined the term “Artificial Intelligence.” According to him,

³ *The role of Artificial Intelligence in protecting children in the digital space*, ECPAT (Aug. 17, 2021), <https://ecpat.org/ai-digital-space/>

⁴ *Artificial Intelligence in Criminal Justice*, MASTER'S IN AI (Mar. 20, 2024), <https://www.mastersinai.org/industries/criminal-justice/>

⁵ Asma Idder and Stephane Coulaux, *Artificial Intelligence in Criminal Justice: invasion or revolution?*, INTERNATIONAL BAR ASSOCIATION (Dec. 13, 2021), <https://www.ibanet.org/dec-21-ai-criminal-justice>

⁶ Thusitha Bulathgama, *Artificial Intelligence: The New Way of Solving Crimes*, MODERN DIPLOMACY (Oct. 26, 2023), <https://moderndiplomacy.eu/2023/10/26/artificial-intelligence-the-new-way-of-solving-crimes/>

AI is “the science and engineering of making intelligent machines.”⁷ While Marvin Minsky, whose work influenced the formation of the internet and personal computers, defined AI as “the construction of computer programs that engage in tasks that are currently more satisfactorily performed by human beings because they require high-level mental processes such as perceptual learning, memory organization, and critical reasoning.”⁸

According to IBM (International Business Machines), “Artificial Intelligence, or AI, is technology that enables computers and machines to stimulate human intelligence and problem-solving capabilities.”⁹

It may be characterized as an intelligent machine that possesses the ability to process information, recognize, and behave independently, in addition to the ability to mimic specific human behaviors. Therefore, artificial intelligence refers to a system that possesses the potential and competence to resolve issues that people would typically manage through the application of inherent human intelligence. To put it simply, technological growth aims to satisfy the ambition and exigency for computerization in the hectic lives of people today. Tasks that were once simple or even challenging are now being completed by AI.¹⁰

The influence of AI

The use of AI provides a broad gamut of prospects to recognize and fight crimes of various natures.

- AI can identify questionable photos and clips by evaluating digital materials; it can recognize patterns and traits that instantly point to the likelihood of sexual abuse. The immediate identification and removal of illegal materials would be made possible by these quick and effective processing abilities, minimizing the vulnerability of youths to unsafe pictures or the spread of information about them.
- Reducing online sexual abuse is one area where AI may be applied. It is skilled in

⁷ TENEO.AI, <https://www.teneo.ai/blog/homage-to-john-mccarthy-the-father-of-artificial-intelligence-ai> (last visited Jan. 18, 2025).

⁸ Igo Lubczanski, *What is Artificial Intelligence (AI)? A Beginner's Guide*, HERO/DOT (Aug. 24, 2023), <https://www.herodot.com/blog/what-is-ai-beginners-guide>

⁹ Cole Stryker & Eda Kavlakoglu, *What is Artificial Intelligence (AI)?*, IBM (Aug. 9, 2024), <https://www.ibm.com/think/topics/artificial-intelligence>

¹⁰ Sanjana Shikhar, *Role of artificial intelligence in law*, IPLEADERS (Sept. 26, 2021), <https://blog.ipleaders.in/role-of-artificial-intelligence-in-law/>

detecting correlations and indicates in actual time of users' activity on the internet that can point to a minor's relations with any offender. It can identify questionable sequences of conduct, communications, and activities in online chats. It can also proactively notify security personnel, guardians, or parents, so they can take prompt protective actions.

- To ensure that AI is effective in safeguarding minors online, cooperation between tech corporations and law agencies is also essential. In reality, businesses can create and deploy artificial intelligence technologies that scan information submitted to their platforms automatically and notify moderators and relevant authorities of any illicit or questionable content right away.¹¹
- By amassing data about individuals, things, and behaviors to enhance criminal operations via footage and imagery assessment, artificial intelligence may assist with addressing or minimizing offenses. This technology is employed by the justice system and law enforcement sectors, necessitating large financial outlays and staff who are experts in the field. In this regard, in Malaysia, in an effort to lower the amount of street crimes, researchers are creating AI software for CCTV cameras. The program uses only the security camera's footage to instinctively identify offenses. The researchers claim that the program is capable of carrying out several functions, including identifying whether a subject in the footage is brandishing a firearm, assessing whether the subject is acting in an "aggressive manner," and alerting law enforcement agencies to possible crimes.¹²
- Evaluating illegal activities connected to DNA is an additional area in which AI may be employed to solve crimes. Genetic components can spread during a crime by touching with victim/perpetrator and items, including epidermal cells, blood, saliva, and sperm. Following the 1986 introduction of DNA samples into forensics, criminal investigation has become more approachable and precise. DNA processing gets better as AI technology progresses. Owing to innovations in DNA technology, it is now

¹¹ Prof. Avv. Roberto De Vita & Avv. Marco Della Bruna, *Artificial intelligence: combating child abuse*, DEVITALAW (Jun. 17, 2023), <https://www.devita.law/artificial-intelligence-combating-child-abuse/?lang=en>

¹² Thusitha, *supra* note 6.

feasible to identify DNA from many individuals, even in minute amounts.¹³

- Another development in machine learning technology that can be used to recognize unidentified shootings is the ability to recognize gunshots. Sensors are working hard to complete this task. One possible application for sensors is in municipal facilities. These sensors, when connected to an app on the cloud, can accurately identify precise gunshots. These sensors can be useful in inspections because they register the location and time of gunfire. They also help identify the shooter's location. This information is sent to law enforcement and appears on a desktop or cellular gadget as a notification message. Even in cases when gunshots are not documented, the use of AI technology to identify and alert law enforcement to potential threats can enhance their response time.¹⁴
- Enormous amounts of data are utilized in the intricate process of predictive analysis to foresee and develop possible consequences. The majority of the work in criminal justice is done by police, parole officers, and other experts who need to develop their skills in the long run. It takes time and is subject to prejudice and mistakes.¹⁵
- AI can also forecast probable criminal recidivism by evaluating vast amounts of legal justice-related material. The computational methods create judgment networks and carry out endurance assessments to estimate the amount of time left till the forthcoming incident of concern and anticipate the likelihood that escapees will commit crimes again (should a warrant not be served).¹⁶
- AI is also utilized to forecast probable victims of heinous crimes by analyzing their relationships and conduct. Algorithms were utilized to gather data, create preliminary groups, and concentrate on building social networks and conducting assessments to identify possible high-risk persons.¹⁷

¹³ Christopher Rigano, *Using Artificial Intelligence to Address Criminal Justice Needs*, NATIONAL INSTITUTE OF JUSTICE (Oct. 8, 2018), <https://www.ojp.gov/pdffiles1/nij/252038.pdf>

¹⁴ Thusitha, *supra* note 6.

¹⁵ *Effects of Human Factors on the Accuracy of Fingerprints Analysis*, NATIONAL INSTITUTE OF JUSTICE (May 16, 2012), <https://nij.ojp.gov/topics/articles/effects-human-factors-accuracy-fingerprint-analysis>

¹⁶ *Applying Data Science To Justice Systems: The North Carolina Statewide Warrant Repository (NCAWARE)*, NATIONAL INSTITUTE OF JUSTICE (2015), <https://nij.ojp.gov/funding/awards/2015-ij-cx-k016>

¹⁷ *Chicago Police Predictive Policing Demonstration and Evaluation Project: Phase 2*, NATIONAL INSTITUTE OF JUSTICE (2011), <https://nij.ojp.gov/funding/awards/2011-ij-cx-k014>

Deployment of AI in Litigation

There are six primary categories into which the existing AI applications in the market may be divided:

- **Meticulous Assessment:** To carry out due diligence and obtain background data, attorneys utilize artificial intelligence systems. Developers have chosen to incorporate many new features for this segment of the market, such as contract assessment, judicial investigation, and digital media, considering the contemporary circumstances.
- **Trend Analysis Technology:** AI facilitates the production of results for contract assessments and legal inquiries. Legal businesses and other industries seem to benefit greatly from this feature of AI programming.
- **Lawful Strategies:** Employing artificial intelligence innovations, attorneys can gather data points from previous or past incidents. They can use this information to monitor the judge's orders and predictions as well. In the coming years, this technology is probably going to gain importance on a worldwide basis.
- **Recording Protocol:** The legal sector uses a variety of software configurations to create documents that facilitate information and data gathering. There are a lot of helpful materials in the legal firm sector. Therefore, it is rather advantageous.
- **Artistic Authority:** AI systems show lawyers how to comb through enormous intellectual property files and decipher a range of visually appealing materials.
- **Digital Voucher:** For quite some time, attorneys created their individual receipts. The application of AI programming software technology in these organizations resulted in the electronic billing of attorneys.

Productivity gains are thought to be possible with AI technology. Artificial Intelligence operates on several algorithms competent for accelerating paperwork authentication and analyzing operations with the help of the autonetics strategy process given to the application. It is not enough to just eliminate manual jobs in order to incorporate artificial intelligence into the organization's infrastructure for several reasons. Instead, there is a greater need for organizations to employ AI as a result of heightened corporate competition. Artificial

intelligence allows law firms to function more efficiently and quickly convey savings to their clients and other relevant industries. Legal services are relatively more costly than those provided by comparable corporations in the market, and enterprises are unable to automate this procedure. On the other hand, the exact nature of the changeover remains uncertain. It is anticipated that law firms with greater financial resources will begin to implement AI technology more gradually and rapidly. In contrast to larger enterprises, emerging startup firms and tiny businesses may be able to start with an integrated and dynamic productivity-driven strategy.¹⁸

Growth of AI Governance and Its Role in Global and Indian Contexts

The capacity to process massive amounts of data rapidly is crucial. For instance, if law agencies recover umpteen files containing photos and images on the culprit's computer, in the absence of esoteric tools the agency would have to comb through all the files to confirm if it has Child Sexual Abuse Materials (CSAM), which can be taxing on human ability in many regards like time-consuming, mental stress, anxiety, etc. Employing an AI-grounded system would help to sieve through the data and distinguish the tape recordings and photos displaying minor sexual abuse. It helps to construct a case quicker, aids victims through the ordeal, recognizes child victims, and eventually assists victims to pursue justice.¹⁹

The spike in documents pertaining to sexual assault and exploitation of minors has overtaken criminal justice agencies globally, taxing their funds to the limit. In response, the Ministry of Interior of the United Arab Emirates along with the United Nations Interregional Crime and Justice Research Institute's (UNICRI) 2020 initiative Centre for AI and Robotics, pioneered the "AI for Safer Children" (AI4SC) seeking to address online child molestation and sexual abuse by way of probing into advance technological outputs, particularly artificial intelligence. The initiative eventually attempts to commit to fulfilling the 2030 Agenda for Sustainable Development, Target 2 of Goal 16, proposing the termination of torture, trafficking, abuse, multiple sorts of violence, and exploitation against all minors. According to UNICEF, internationally, one in 5 girls and one in 13 boys have encountered sexual abuse or exploitation by 18 years age, along with associations online highlighted in some fashion in nearly all matters

¹⁸ Sanjana, *supra* note 10.

¹⁹ "The role of Artificial Intelligence....," *supra* note 3.

of sexual abuse and exploitation of minors.²⁰ The international project applies artificial intelligence (AI) to help law agencies fight the abuse and exploitation of minors in the online space. Reports from the National Center for Missing and Exploited Children (NCMEC) have skyrocketed, reaching over 32 million in 2022 compared to over 100,000 in 2010. Due to the possibility of each issue having hundreds of photos and footage, professional investigators are now faced with an untenable workload. Reviewing 1,000 hours of footage translates to five months of nonstop film-recorded examination. Under such circumstances, it becomes crucial to emphasize the requirement for ingenious solutions, like the use of artificial intelligence, to assuage the tension on law enforcement reserves.²¹

Various legislations have been initiated internationally to combat the misuse of AI for different reasons.

- The European Union, in a fight to deal with child sexual abuse online, forwarded the Digital Services Act (DSA), which would manage online mediation and sources like social forums, marketplaces, content-sharing platforms, online booking for lodging and travel, app stores, etc. The main objective of the act is to avert illicit and detrimental actions online and the circulation of false information.²²
- **The Artificial Intelligence (AI) Act** will be the first of its kind as an encyclopedic legal constitution on AI globally. The objective of the act is to promote the ethical use of AI in Europe and globally by guaranteeing that AI networks honor protection, fundamental rights, and moral rules and by recognizing the hazards of extremely robust and impressive AI configurations.²³
- **The Online Safety Act 2023** is a UK act that provides for and concerns itself with governing online speech and media. As for children, this act requires software companies managing social platforms or search engines to endorse online protection by

²⁰ UNITED NATIONS INTERREGIONAL CRIME AND JUSTICE RESEARCH INSTITUTE (UNICRI), <https://unicri.it/topics/AI-for-Safer-Children> (last visited Jan. 18, 2025).

²¹ Mark Minevich, *Revolutionizing Child Protection: The UN And UAE's Groundbreaking AI For Safer Children Collaboration*, FORBES (Dec. 26, 2023), <https://www.forbes.com/sites/markminevich/2023/12/26/revolutionizing-child-protection-the-un-and-uaes-groundbreaking-ai-for-safer-children-collaboration/>

²² *The Digital Services Act*, EUROPEAN COMMISSION (Oct. 27, 2022), https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/digital-services-act_en

²³ *AI Act*, EUROPEAN COMMISSION (Oct. 14, 2024), <https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai>

addressing illicit content and material that is hazardous to minors, administering daily threat evaluations, and appropriately imposing legal age limits.²⁴

- Brazil enacted **Bill No. 2338/ 2023**, also titled “**On the Use of Artificial Intelligence.**” It includes guidelines for the rights of impacted groups and individuals, risk assessment and classification, AI system governance, civil liability, fine for failure to comply, and copyright safeguards. It additionally contains special clauses pertaining to the use of AI by the government, standard practices, self-management, and reporting of major safety incidents. Lastly, it creates an intergovernmental supervisory framework at the federal government level, with the executive branch designating the lead regulator.²⁵

The first stage of the AI framework in India, known as the AI Task Force Report, was designed to conduct a thorough analysis of artificial intelligence. This crew, which was formed by the Ministry of Commerce and Industry and chaired by Tata Sons chairman N. Chandrasekaran, endeavored to look at the pecuniary benefits of AI and figure out how it can help India.²⁶ Its vision was “*To embed AI in our Economic, Political and Legal thought processes so that there is the systematic capability to support the goal of India becoming one of the leaders of AI-rich economies*”²⁷ Given that the legal industry is still seen as being labor-intensive, the overall process is carried out manually in India. Consequently, artificial intelligence is still in its infancy. Many of its more conservative supporters resist the idea of AI being included in the law, arguing that technology shouldn't be used widely since it may one day replace humans. However, large law firms and several tech-savvy attorneys are utilizing technology advancements to their fullest potential in an effort to outperform their rivals. As the world's longest Constitution is just one example of how vast the Indian legal system is, it is imperative to use artificial intelligence (AI) in law to keep up with the ever-evolving legal landscape. In the realm of legal research, attorneys can swiftly access exceptional insight into the legal world by utilizing natural language processing technologies. Cyril Armarchand and Mangaldas are forerunner companies that eagerly welcomed the idea of AI after seeing its potential. By being

²⁴ LEGISLATION.GOV.UK, <https://www.legislation.gov.uk/ukpga/2023/50/enacted> (last visited Jan. 18, 2025).

²⁵ *Key Vote Expected on Brazil's Artificial Intelligence Legal Framework*, COVINGTON (Jun. 11, 2024), <https://www.cov.com/en/news-and-insights/insights/2024/06/key-vote-expected-on-brazils-artificial-intelligence-legal-framework>

²⁶ Pranav Mukul, *Task force set up to study AI application in military*, THE INDIAN EXPRESS (Feb. 3, 2018; 03:18 IST), <https://indianexpress.com/article/technology/tech-news-technology/task-force-set-up-to-study-ai-application-in-military-5049568/>

²⁷ Pallavi Kapur, *Scope of Artificial Intelligence in Law*, 7 LDIJL, https://legaldesire.com/scope-of-artificial-intelligence-in-law/#_ftn1

the first Indian legal practice to license "Kira," a machine learning application created by Canadian company Kira Systems, CAM made legal history. A great deal of time and effort can be saved by using this AI-based software, which can perform many tasks. The "Kira" technology is used to extract provisions from different legal documents, analyze legal paperwork, and identify any potentially harmful areas.²⁸

With a nearly \$1 trillion global market value, the legal services sector is among the biggest in the world. It continues to be less digitized at the same time. For what it's worth, the legal profession is tradition-bound, historically sluggish to absorb new technologies and lawyers are still at ease with and dependent on solutions devised eons ago.²⁹

Legal research is one of the areas where AI can have the biggest impact on the legal industry. Artificial Intelligence can give lawyers instant access to a unique perspective of the legal domain, as the Indian legal system is always evolving. It can stabilize the expenses of legal research while keeping a consistent level of quality. Whether a law company employs 400 lawyers or just one practicing lawyer, AI can conduct research in seconds. It can provide attorneys with effective tools to assist them in improving their client-advising abilities.³⁰

In India, the Protection of Children from Sexual Offences (POCSO) Act 2012 is a quintessential legislation that has pioneered in combating child sexual abuse as opposed to other previous legislations. Keeping in line with the United Nations' definition of a child under Article 1,³¹ the POCSO Act 2012, Section 2 (d) also defines a "child" as "*every human being below the age of eighteen years.*"³² The legislation exhibits numerous commendable features:

- It is a gender-neutral law that makes provisions for male child victims as well, in sexual abuse cases.³³
- The Act includes various forms of sexual abuse, along with non-penetrative and

²⁸ Sanjana, *supra* note 10.

²⁹ LEGALPEDIA, <https://legalpediaonline.com/artificial-intelligence-law/> (last visited Jan. 8, 2025).

³⁰ Sanjana, *supra* note 10.

³¹ UNITED NATIONS HUMAN RIGHTS, <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child> (last visited Jan. 18, 2025).

³² The Protection of Children from Sexual Offences Act, 2012, § 2(d), No. 32, Acts of Parliament, 2012 (India).

³³ Geetika Mantri, *What is the POCSO Act and how is it used: A guide*, THE NEWS MINUTE (Feb. 12, 2021, 4:16 pm), <https://www.thenewsminute.com/news/what-pocso-act-and-how-it-used-guide-143310>

penetrative assault, including pornography and sexual harassment.³⁴

- It makes provisions for child-friendly processes when collecting evidence, trial preparation, reporting, and investigation of the victim child.³⁵
- It outlaws tenacious or incessant observation, stalking, or liaising with a minor directly, through other means, or digitally.³⁶
- It recognizes an array of sexual abuse, including touch, along with non-touching activities like indecent exposure of the perpetrator to/in front of a minor or asking a child to expose themselves, etc.³⁷
- The extraordinary act prohibits not just viewing porn but also collecting pornographic materials.³⁸
- The act also makes provision for mandatory reporting of sexual crimes against children.³⁹
- There is also the provision for setting up Special Courts in every state to deal with POCSO cases.⁴⁰
- Section 29 of the Act is considered an “*extraordinary clause*” as it rates the conjecture of the defendant as “*guilty until proven innocent*.”⁴¹
- The act requires courts to conclude all POCSO cases within one year from the date of the offense.⁴²

The 2019 Amendment Act of the POCSO Act brought about many carefully curated changes

³⁴ 10 years of POCSO: An analysis of India's landmark child abuse law, CIVILSDAILY (Nov. 19, 2022), <https://www.civildaily.com/news/pocso-10-years-analysis/>

³⁵ Geetika, *supra* note 33.

³⁶ Jyoti Belur & Brijesh Bahadur Singh, *Child Sexual Abuse and the Law in India: A Commentary*, 4 CRIME SCIENCE 1-6 (2015).

³⁷ Geetika, *supra* note 33.

³⁸ Shashank Painuly, *An Analysis of the POCSO Act*, LAW WIRE (Aug. 29, 2021), <https://lawwire.in/an-analysis-of-the-pocso-act/>

³⁹ Geetika, *supra* note 33.

⁴⁰ Shashank, *supra* note 38.

⁴¹ Jyoti, *supra* note 36.

⁴² Shashank, *supra* note 38.

of which Section 2(1)(da) was exceptional in spelling out the definition of “*child pornography*” as “*any visual depiction of sexually explicit conduct involving a child which includes photograph, video, digital or computer generated image indistinguishable from an actual child, and image created, adapted, or modified, but appear to depict a child,*”⁴³ The broad definition encompasses not just images and video recordings but also computer or digitally produced photographs identical to a real minor and pictures converted, generated, or transformed to materialize as portraying a child. The meticulously propicient definition would be efficient in managing child sexual abuse content in the country, along with linking the space between debauchery and criminality.⁴⁴

In 2023, JusticeHub, an open-source platform, initiated an experiment using AI on Indian legal data of POCSO cases. The AI entitled Natural Language Processing (NLP) library, known as **OpenNyAI**, was established to assist legal research by instructing computers to recognize patterns in judgments. The judicial department keeps a sequential catalog of all central legislations, of which some predate 1836. The manual analysis of all such documents will be taxing and time-consuming for a legal researcher. Additionally, eCourts metadata may have data concerning the case, but may not be thorough or faultless. The application of OpenNyAI helped in recognizing the absent sections and inconsistencies in the data. The said experiment went on to skim the surface of a mammoth reserve of information, which had been unorganized and left aside for a long time.⁴⁵ There is a significant need for premium public data to trace legislation, acknowledge legal procedure, and promote finer legal amelioration.⁴⁶

SpotDraft is an AI-based Start-up founded by Madhav Bhagat, a former Google employee, and Shashank Bijapur, a Harvard Law School alumnus. This AI-driven business enables customers to draft business contracts, which reduces paperwork and allows them to review legal documents. Customers may create and sign contracts using this innovative platform, which also includes automated reminders and payment capabilities. Furthermore, SpotDraft gives business teams the autonomy to handle contracts, which lessens the need for ongoing

⁴³ The Protection of Children from Sexual Offences Act, 2012, No. 32, Acts of Parliament, 2012 (India).

⁴⁴ *AI generated child sexual abuse material and the POCSO Act*, CHILD SAFETY AT WORK (Jan. 5, 2024), <https://childsafetyatwork.org/ai-generated-child-sexual-abuse-material-and-the-pocso-act/>

⁴⁵ Sai Krishna Dammalapati, *Exploring the capabilities of Natural Language Processing (NLP) in conducting legal analysis: An experiment using POCSO Judgments*, MEDIUM (Mar. 27, 2023), <https://medium.com/civicaldata/exploring-the-capabilities-of-natural-language-processing-nlp-in-conducting-legal-analysis-88ef2b9dec9c>

⁴⁶ Sai Krishna, *Courts and AI*, DATA FOR JUSTICE (Apr. 10, 2023), <https://dataforjustice.substack.com/p/courts-and-ai>

legal review and intervention. Thus, it enhances the contract work's overall velocity, exposure, and productivity.⁴⁷

CaseMine is an AI-driven legal research system that assists attorneys in case preparation through natural language processing and machine learning. Researchers can go beyond keyword-based queries with Casemine's equipment, which uses context-based recovery to establish relationships between retrieved publications and case laws with equivalent legal themes. A virtual legal research assistant called CaseIQ is also included with Casemine; it can comprehend document context and return pertinent search results from briefs and other legal papers.⁴⁸

NearLaw is a start-up from Mumbai that offers attorneys and law firms AI-based legal solutions. NLP technology is reportedly being used by NearLaw to help with legal concerns by comprehending case rankings. It makes legal research simple, quick, and accurate for attorneys. It is the most comprehensive online marketplace for legal solutions and a search engine for lawyers for businesses.⁴⁹

PracticeLeague is an intelligent technological grid for the whole legal environment. In order to increase cost-effectiveness and legal efficiency, it offers an intelligent and integrated platform for legal enterprise administration. It gives legal businesses access to an actual-time practice administration suite that may be made available as an integrated part of the enterprise legal administration platform. By streamlining processes, enhancing client interactions, and providing better management visibility and control, law firms using Practice Management Suites can increase productivity and income. It stands out for providing clients with flexibility in both on-premises and cloud deployment modes.⁵⁰

AMICUS, an innovative AI-powered judicial aid and the country's first productive AI system, was introduced by the Indian legal information technology firm CaseMine. The application represents a cutting-edge influence in the realm of legal software by providing solicitors as well as other legal experts throughout the world with the data, instruments, and perspectives they require readily available at their disposal. Formerly, a challenging task to investigate,

⁴⁷ SPOTDRAFT, <https://www.spotdraft.com/aboutus> (last visited Jan. 18, 2025).

⁴⁸ CASEMINE, <https://www.casemine.com/home/about> (last visited Jan. 18, 2025).

⁴⁹ NEARLAW, <https://www.f6s.com/nearlaw.com> (last visited 18, 2025).

⁵⁰ Dipen Pradhan, *How PracticeLeague Is Making A Case For AI In Judicial Service Delivery*, INC42 (Jul. 3, 2018), <https://inc42.com/startups/how-practiceleague-is-making-a-case-for-ai-in-judicial-service-delivery/>

massive quantities of rulings from courts, legal records, and intricate lawsuit information can be easily accessed and exploited. It guarantees the distribution of accurate and verified material by providing appropriate responses to judicial questions in addition to referencing and connecting to the original source. The most recent legal information is constantly added to the system automatically.⁵¹

For the first time, the Indian judicial system of the Punjab and Haryana High Court solicited the support of an AI chatbot (ChatGPT) during the passing of a verdict of bail for a person charged in a homicide case. Nonetheless, the High Court was quite explicit in its decision-making that any mention of ChatGPT and any of the observations stated are not an assessment of the case's merits, nor would the trial court consider these remarks. The High Court stated that the reference is simply meant to provide a more comprehensive perspective of bail legislation in cases where cruelty is a factor. The petitioner was incarcerated for a savage attack that claimed a life, which was allegedly committed by him and several others. The accused was discovered to be connected to three more criminal matters by the HC during the hearing. The petitioner argued that incarceration until trial would permanently harm him and his family and that he was entitled to bail. The state attorney refuted his plea, claiming that the man's criminal history made it likely that, if granted bail, he would commit crimes again. In order to evaluate the global perspective on bail in cases where the assault was motivated by cruelty, the judge posed a question to ChatGPT Open AI. It stated that, while particulars of each case and the legislation and rules of the authority in question will determine the legal theory on bail in these types of cases, in broad terms, if the accused has been imposed with an aggressive offense involving cruelty, like homicide, severe assault, or brutality, they might be deemed a flight risk and a threat to the society. The bail plea was dismissed by the court, keeping in mind the viciousness of the crime.⁵²

There is real potential in utilizing AI in the Indian legal scenario to remodel the techniques that Indian lawyers presently operate with and also alter the way law is considered in India.⁵³ In the words of Hon'ble Chief Justice of India, D.Y. Chandrachud, *"Technology has become a powerful tool in the legal system in improving efficiency, accessibility, and accuracy in the*

⁵¹ *CaseMine launches AI-powered legal assistant AMICUS*, BAR AND BENCH (Jul. 18, 2023, 11:11 am), <https://www.barandbench.com/news/casemine-launches-ai-powered-legal-assistant-amicus>

⁵² *Punjab & Haryana HC uses ChatGpt for views on bail*, TIMES OF INDIA (Mar. 29, 2023, 09:05 IST), <https://timesofindia.indiatimes.com/city/chandigarh/punjab-haryana-hc-uses-chatgpt-for-views-on-bail/articleshow/99077253.cms>

⁵³ Sanjana, *supra* note 10.

administration of justice."⁵⁴

Rejigging the Indian Legal System Through AI

It is evident that there are judicial backlogs in the Indian legal structure. The judiciary is overcrowded with more than 3 Cr. outstanding matters, resulting in unfavorable delays in dispensing justice to the people. Because of this, numerous initiatives are being made to make things better, like shortening the length of vacation days and strengthening the judicial system. However, more needs to be done, and this is where artificial intelligence enters the picture. Many identical cases are filed each year, which makes it imperative to employ artificial intelligence (AI) and data science to aid the courts. Prognostic technological advances are used to supply vital data regarding existing cases determined by similar past cases. Studies show that AI can be highly helpful at the evidence stage, which is always a crucial time. It takes up a large amount of court time because it is such a crucial phase in any case. AI-assisted assessment can help judges reach rulings more quickly. This stage frequently experiences many delays for a variety of reasons, including the lead investigator's investigation taking longer than expected time or the lack of witnesses. In these circumstances, the role of AI technology would be to anticipate possible delays. This would be advantageous to judges, as they would be aware of the reasons behind the previously mentioned delays in cases that are similar to each other, like murder. Judges will benefit from this anticipatory technology since they will be able to manage each case's workload effectively. By giving witnesses more police protection, it will also help judges take proactive steps to keep them from turning hostile.⁵⁵

The 47th Chief Justice of India, S.A. Bobde, had said in an interview that *"We have a possibility of developing Artificial Intelligence for court system. Only for the purpose of ensuring that the undue delay in justice is prevented,"* which is one of the most crucial contemporary advancements. Additionally, he stated unequivocally that judges or human discretion will not be replaced by AI. Offering additional insights, he continued, *"It is only the repetitive, mathematical and the mechanical parts of the judgments for which help can be taken from the machine learning system...we are exploring the possibility of implementing it."*⁵⁶

⁵⁴ *Technology A Powerful Tool In Legal System To Improve Efficiency, Accessibility: Chandrachud*, OUTLOOK (Jan. 25, 2023, 2:38 am), <https://www.outlookindia.com/national/technology-a-powerful-tool-in-legal-system-to-improve-efficiency-accessibility-chandrachud-news-256517>

⁵⁵ Sanjana, *supra* note 10.

⁵⁶ Pallavi, *supra* note 27.

Transforming Legal Writing and Research with AI

By utilizing its powers in natural language processing, database evaluation, and machine learning, AI can serve as a judicial aid. Among the tasks that AI could complete are:

- **Probabilistic Methods in Data Analysis:** AI can forecast the results of identical cases that are similar to one another or offer suggestions for legal tactics by examining past case materials. It can help attorneys evaluate pitfalls, make fully appraised judgments, and create plans for settlement or lawsuits.
- **Comprehensive Diligence:** Artificial intelligence may digitize the process of examining and organizing vast amounts of papers, recognizing pertinent data, and detecting any risks or inconsistencies amid acquisitions and deals or related legal deals.
- **Legal Research:** AI-enabled legal aids help to swiftly find pertinent data for a particular case or judicial issue by evaluating voluminous legal papers.
- **Legal Writing and Drafting:** AI can help in the writing of legal papers by offering templates, recommendations, and wording that is founded on prior cases or court standards. Examples of these documents include legal beliefs, declarations, and deals. This can enhance the reliability as well as functionality of producing legal documents.
- **Document Analysis:** Artificial intelligence can assist in locating pertinent provisions, highlighting possible problems or irregularities, and offer suggestions according to pre-established standards.⁵⁷

Ethical and Practical Pitfalls of AI Implementation

Despite the enormous advantages of AI in tackling crime, it is crucial to handle the moral concerns about confidentiality that impact legal investigative processes. Thus, in order to prevent AI from being abused or resulting in unanticipated harm, it is imperative to establish explicit principles and rules that regulate its use in criminology. In many applications, artificial intelligence technology is also far from organized, established technology. As a result, the

⁵⁷ Aditya Anand, *Post*, LINKEDIN (Jan. 18, 2025, 7:22 pm), https://www.linkedin.com/posts/anandaditya05_casemine-launches-ai-powered-legal-assistant-activity-7087331782429175808-_We1/

information obtained through AI about legal authorities and criminal justice incidents can sometimes prove to be unreliable. Since AI technology was built by people, there is a certain amount of error-proneness even if it functions without human intervention.⁵⁸

Scrupulous Frameworks for Leveraging AI in Child Protection

Substantial moral concerns are additionally brought up by the application of AI to protect minors on the internet; it is crucial to make sure that AI is employed ethically and that user privileges are upheld. Massive volumes of private data may be gathered and analyzed as part of computerized material evaluation, necessitating appropriate information confidentiality and safety.

The “*AI for Safer Children*” (AI4SC) initiative is built upon a particular regulatory and moral framework that is predicated on core values. These include a reasonable method for the acquisition, advancement, and application of artificial intelligence technology in order to preserve people’s fundamental liberties. Similarly, the ideals of the 1989 Convention on the Rights of Child serve as a framework for the efforts of the project researchers and software associates.

The application of artificial intelligence to prevent the spread of photos stemming from sexual assault and to safeguard minors on the internet has been demonstrated to be a significant advancement in the realm of digital security. To preserve the confidentiality of the generated private information as well as the safety of persons exposed to the control systems, it is imperative to emphasize the necessity of ethical engagement. Consequently, it will be possible to create a secure virtual world for children and allow them to gain from technology in a way that is safe through potent (digital) associations among online platforms and legal agencies on one side and appropriate guidance on their digital lives on the other side.⁵⁹

AI material-producing devices enable authorities with covert missions by enabling them to mimic childish behavior in chat forums. Investigators can gain access to online domains in which abuse of children may take place with the help of image generators, audio reproduction tools, and text generators that can produce genuine identities and conversations. This ability improves the efficiency of covert missions and gives legal authorities important information

⁵⁸ Thusitha, *supra* note 6.

⁵⁹ Prof. Avv. Roberto, *supra* note 11.

about any possible risks to minors.

To safeguard minors, the world at large must advance and employ AI extensively. It can be a very useful tool for police officers, assisting them in averting offenses and apprehending offenders more quickly.⁶⁰

Responsible Implementation of AI Across Diverse Sectors

The collection of governing principles known as AI ethics is employed by stakeholders, ranging from lawmakers to engineers, to guarantee that AI software is produced and applied ethically. This entails approaching AI in a way that is reliable, protected, accessible, and ecologically conscious. A solid framework of ethics for AI can prevent partiality, protect user confidentiality and information, and reduce environmental dangers. AI ethics can be applied primarily through two channels: government-led statutory systems and corporate standards of ethics. Both strategies aid in the governance of AI technology by addressing ethical AI concerns on a national and international scale and establishing the regulatory framework for ethical AI in businesses.

The business community must collaborate to set moral guidelines for the appropriate usage and development of artificial intelligence. Stakeholders need to look at how AI interacts with political, economic, and social challenges and figure out how humans and technology can thrive in harmony. Every one of these players contributes significantly to lowering the risk and prejudice associated with AI technologies.

- **Private companies:** The folks in charge of establishing ethical groups and standards of practices are executives at Meta, Google, and other software firms, along with those in the financial sector, advisory services, medical field, and various commercial sectors that employ artificial intelligence (AI) technologies. This frequently sets a benchmark that other businesses can adopt.
- **Intergovernmental organizations:** Organizations like the World Bank and the United Nations are in charge of promoting awareness of AI ethics and creating international agreements in this area. For instance, in November 2021, the 193 member states of UNESCO ratified the first-ever worldwide accord on the Ethics of AI in order to

⁶⁰ Mark, *supra* note 21.

advance human dignity and rights.

- **Academics:** The task of creating theoretically grounded figures, studies, and concepts that can assist agencies of government, businesses, and charitable organizations falls on academicians and researchers.
- **Non-profit organizations:** To ensure that different groups are represented in AI technology, charitable organizations like Queer in AI and Black in AI strive to achieve this goal. 23 guidelines were developed by the *Future of Life Institute*, highlighting certain dangers, difficulties, and consequences associated with artificial intelligence technologies.
- **Government:** Parties and departments within a government can support national AI ethical initiatives. The National Science and Technology Council (NSTC) 2016 paper, “*Preparing for the Future of Artificial Intelligence*” is a notable illustration of this. It discusses AI and its implications for community promotion, control, administration, commerce, and defense.⁶¹

Conclusion

Regulatory structures to handle child sexual abuse charges are urgently needed, as evidenced by the disturbing rise of AI-generated materials perpetrated on minors, which has evolved into a prominent issue in the larger conversation on ethics and AI. The current legal system in India provides a thorough description of child pornography, especially concerning the 2019 Amendment of the POCSO Act. The description, which covers graphically detailed representations of children, real or artificial, demonstrates a progressive stance that could be used as an example for resolving the conflict between permanence and illegality when it comes to AI-generated material that involves online child sexual assault.

We live at a time when the impact of technology on social change is undeniable, and we are living through a pivotal point in history. AI’s revolutionary contribution to child protection offers a potent awareness of our shared ethical obligations. The “*AI for Safer Children*” (AI4SC) initiative serves as a witness to how much could be accomplished if technology

⁶¹ *AI Ethics: What It Is and Why it Matters*, COURSERA (Jun. 6, 2024), <https://www.coursera.org/articles/ai-ethics>

combines with mankind's highest goals when we contemplate the destiny of AI in the protection of the community. The AI4SC initiative encourages academicians, IT sector executives, legislators, and concerned citizens of the world to work together to support and grow such types of projects. To guarantee every minor's right to a secure and respectable upbringing in the era of technology, it is obligatory for us to make use of our wisdom and assets to strengthen these initiatives.

Artificial intelligence should not remain the sole technology used to protect children online. To provide a secure online setting for minors, politicians, educators, parents, and online security professionals must work together. Encouraging secure internet habits, educating people about digital risks, and increasing consciousness of online hazards are all crucial to guaranteeing the welfare of minors.

Artificial intelligence has the potential to improve litigation procedures in the legal system, but it cannot take the position of a legal specialist's wisdom and discretion. Since humans-built AI, it is meant to support and enhance their work by offering productiveness, precision, and understanding. However, actual experts ought to constantly render the ultimate decisions and provide legal guidance.

In addition to determining the course of artificial intelligence in public safety, our combined reaction to such a cry for action will ultimately determine our footprint in a universe in which technology is used to protect the future and wellness of the younger members of society worldwide. It is also essential for the Indian legal system to enact AI laws that address Indian legal needs and requirements.