# The Use of Artificial Intelligence Technology in Preventing Female Delinquency: A Novel Approach to Situational Crime Prevention

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#### **Abstract**

In recent years, artificial intelligence (AI) has garnered significant attention as an effective tool across various domains of criminal sciences, particularly in crime prevention. This article adopts a descriptiveanalytical approach to examine the role of AI in the prevention of female delinquency. Given the distinct characteristics of the female offender population and the social, economic, and psychological factors influencing their criminal behavior, the present study seeks to explore the potential of modern technologies—particularly machine learning, big data analytics, and predictive algorithms—in the early identification of high-risk behaviors, crime prediction, and timely intervention. Situational prevention of female delinquency through the application of AI technology represents an innovative and targeted approach in criminal policy-making. By focusing on three core areas, it demonstrates considerable effectiveness in reducing delinquent behaviors. First, by increasing the effort and risk associated with committing crimes—through the use of predictive crime algorithms, intelligent offender profiling systems, and recidivism pattern analysis—it becomes more difficult for women to engage in criminal activities. Second, the reduction of the benefits associated with delinquency is achieved through tools such as geographic analysis, crime mapping, and surveillance robots, which restrict immediate access to criminogenic settings. Finally, the elimination of excuses for criminal behavior is addressed through regulatory reforms, precise rule-setting, and the facilitation of norm enforcement via intelligent systems and machine learning processes.

**Keywords:** artificial intelligence, situational crime prevention, female delinquency, intelligent offender profiling, geographic crime analysis, preventive robots.

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# 1. Introduction

In the era of digital transformation, technological innovations—particularly in the field of artificial intelligence (AI)—have introduced a new horizon for criminal justice systems. These technologies not only provide tools to enhance the efficiency of judicial and law enforcement processes but also hold significant potential in the domain of crime prevention. Among various strategies, situational crime prevention, which focuses on reducing the opportunity to commit crimes, offers a favorable platform for the implementation of AI to identify, intervene, and control criminal behavior.

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Female delinquency is a social and evolving phenomenon that, influenced by cultural, economic, and psychological developments, has seen an upward trend, thereby intensifying the necessity for a reassessment of criminal and preventive policies. One of the most effective modern approaches to addressing this trend is the utilization of new technologies—particularly AI—which facilitates precise analysis, scientific prediction, and targeted intervention. The situational prevention approach, by focusing on the environment of criminal conduct, enables technological interventions along three main axes: increasing the effort and risk associated with committing crimes, reducing the benefits of delinquency, and eliminating excuses for criminal behavior. This study aims to analyze the capacities of AI in preventing female delinquency by drawing upon theoretical foundations such as the "Rational Choice Theory" and "Algorithmic Criminology" and to elucidate its applications in designing a novel system of situational crime prevention.

Accordingly, female delinquency, as a complex phenomenon influenced by multidimensional factors such as poverty, domestic violence, gender inequality, and psychological trauma, requires specific and targeted approaches in criminal policymaking. The application of AI in the analysis of high-risk behaviors, crime prediction, intelligent offender profiling, geographic crime analysis, the deployment of surveillance robots, and algorithm-based regulation presents new opportunities for reducing the preconditions of female criminal behavior.

This paper seeks to answer the following questions:

- 1. What role and function does AI serve in enhancing tools for situational prevention of female delinquency?
- 2. How can AI capabilities be utilized to increase the effort and risk associated with committing crimes among women?
- 3. In what dimensions can new technologies such as geographic crime analysis and surveillance robots be used to reduce the benefits of female delinquency?
- 4. How can AI-based technologies assist in eliminating excuses for committing crimes by women through regulatory reform and facilitation of norm enforcement?
- 5. To what extent can the intelligent profiling of female offenders contribute to the prevention of recidivism?
- 6. This article intends to define the role of AI as an innovative strategy for situational prevention of female delinquency, focusing on the three core components: increasing the risk and effort of committing crimes, reducing the benefits of criminal acts, and eliminating excuses for delinquent behavior.

#### 2. Concepts and Theoretical Foundations

In the digital transformation era, the application of modern technologies—particularly AI—in the domain of criminal sciences has emerged as a new strategy in crime prevention. Among these, situational prevention, which emphasizes the reduction of crime opportunities, offers a suitable ground for employing intelligent tools. On the other hand, Rational Choice Theory and Algorithmic Criminology, which assume that offenders rationally evaluate the costs and benefits of committing a crime, provide the theoretical basis for designing solutions that increase the effort, risk, or cost of criminal actions (Abouzari, 2021). This section presents the key concepts and theoretical foundations of the study.

# 2.1. Conceptual Clarification

In the digital transformation era, AI has become one of the most significant technological achievements, playing a vital role in data analysis, decision-making, and process optimization. In the field of criminological sciences, situational prevention is a practical and environment-focused approach that aims to minimize the likelihood of criminal behavior by reducing the opportunities for crime. The convergence of these two concepts may lead to innovative solutions for controlling and reducing deviant behaviors, particularly in crime prevention. This article explores the conceptual basis of these two fields and the potential for their integration within preventive policy frameworks.

# 2.1.1. Concept of Artificial Intelligence

Artificial Intelligence (AI) is a branch of computer science focused on the development of systems and machines capable of performing tasks that typically require human intelligence, such as learning, reasoning, decision-making, and understanding natural language (Russell & Norvig, 2020). In other words, AI refers to a system's ability to interpret external data, learn from

that data, and utilize the acquired knowledge to achieve specific goals through adaptability and process automation (Poole & Mackworth, 2017).

AI systems can demonstrate behavior similar to human responses. These behaviors often include understanding complex situations, applying reasoning methods, learning, generating results, and making recommendations. AI is used across a variety of fields including law, military sciences, psychology, transportation, medicine, biology, and social sciences. Essentially, AI forms the foundation for enabling computers or machines to mimic human cognitive processes through the development and deployment of algorithms within dynamic computational environments. Simply put, AI aims to make computers think and act like humans and assist in tasks that require human-level intelligence (Turner, 2019).

# 2.1.2. Concept of Situational Crime Prevention

Situational Crime Prevention is one of the crime prevention strategies that focuses on modifying physical and social environments to reduce opportunities for crime. Unlike approaches that concentrate on individual offender motivations, this strategy seeks to identify and alter the conditions that facilitate criminal activity. In other words, the goal of situational prevention is to diminish the attractiveness or ease of committing crimes by improving environmental factors. This form of prevention pays more attention to situational factors than individual characteristics. In this context, "situation" refers to a set of pre-criminal conditions that generally facilitate criminal behavior (Niazpour, 2021).

Situational prevention represents a paradigmatic contrast with community-based prevention models, as it aims to change pre-criminal situations to deter offenders who have already developed criminal intent. This approach, inspired by Rational Choice Theory and the concept of crime costs, attempts to shift the crime equation in favor of the victim and against the offender, adopting a security-oriented perspective through enhancing the crime target (Darabi, 2018, p. 132). Nonetheless, situational prevention includes defensive action strategies which, while avoiding coercive measures, impose various restrictions that may reduce individual freedoms.

Situational prevention of female delinquency involves employing strategies that make committing crimes more difficult, riskier, or less rewarding for female offenders. Unlike traditional approaches that primarily focus on individual or structural causes of women's criminal behavior—such as poverty, abuse, or gender-based discrimination—situational prevention emphasizes changes in the social and physical environments where women may commit crimes.

Studies have shown that female delinquency is significantly influenced by social roles, familial responsibilities, and psychological and economic pressures (Walklate, 2004). Therefore, situational prevention strategies must be sensitively designed to account for gender-specific differences.

# 2.2. Rational Choice Theory

Rational Choice Theory posits that criminal behavior results from a deliberate choice made by the offender—someone seeking economic, sexual, or other forms of gain such as exerting control or abuse over others (e.g., abuse of a woman with a child), fulfilling personal desires, or attaining worldly pleasures such as entertainment or social status. According to this theory, the primary cause of crime is the pursuit of benefit, not the unfavorable psychological or social conditions often emphasized in other criminological theories (Mirkhalili, 2009).

This approach is grounded in a central principle: human behavior is goal-oriented and deliberative. Individuals, when faced with choices, select the path aligned with their objectives, calculating the potential gains and losses of each option. Hence, deviant behavior is also considered a form of individual decision-making—a rational, utilitarian choice made after weighing its positive and negative consequences (Keramati Moazz, 2020).

Within this framework, artificial intelligence can function as a tool to reinforce situational crime prevention by increasing the perceived cost of criminal behavior in the minds of potential female offenders. Since many crimes committed by women are opportunistic or situational in nature (e.g., theft or economic offenses), combining Rational Choice Theory with advanced AI tools within a technologically driven situational prevention model can provide an innovative and efficient framework for reducing female delinquency. This framework not only serves a deterrent function but also enables data-driven, targeted interventions.

#### 2.3. Algorithmic Criminology

Algorithmic criminology is an interdisciplinary field that integrates computer science, applied mathematics, and criminology. It uses computational and mathematical procedures to operationalize theories related to crime and law enforcement. Since algorithmic science is one of the most essential foundations of computer programming, criminological etiology based on this principle is referred to as algorithmic criminology. An algorithm is a set of rules or instructions designed to solve a problem using logical and mathematical methods (Raeijian Asli, 2023).

One of the core approaches within algorithmic criminology is the meticulous study of **recidivism prediction**. This model produces a "recidivism score" that significantly aids in determining an offender's risk level. Research findings even suggest that algorithms can outperform human predictions regarding the likelihood of repeat offenses (Keramati Moazz, 2024).

This is a modern approach to crime analysis and prevention that utilizes data-driven algorithms and advanced technologies to understand patterns of criminal behavior and predict delinquency. With the help of AI, machine learning, and big data, this theory facilitates the identification of hidden behavioral patterns among offenders and paves the way for more precise crime prevention policy development.

Accordingly, algorithmic criminology, in conjunction with AI, creates a novel approach for situational crime prevention among women—an approach that shifts the focus from post-crime responses to proactive, environment-based control of criminal behavior. In this context, technology serves not merely as a surveillance tool but as an instrument of anticipatory and preventive justice.

# 3. Increasing the Effort and Risk of Female Criminal Behavior Through Artificial Intelligence

Within the framework of situational crime prevention, one key strategy is to increase the effort and risk associated with committing a crime—making it more difficult, riskier, and more costly for a potential offender to act. In this regard, AI technology—with its predictive analytics, risk assessment capabilities, and intervention personalization—emerges as a novel tool for enhancing the effectiveness of this preventive strategy. Specifically in the context of female delinquency, which is shaped by unique psychological, social, and economic factors, AI can contribute through accurate prediction of high-risk behaviors, prevention of recidivism, and the intelligent profiling of female offenders. This section elaborates on the dimensions of such applications and examines how intelligent technologies can reduce the vulnerabilities of women at risk of offending and reinforce deterrent mechanisms.

# 3.1. Crime Prediction Among Women Based on AI Capabilities

Crime prediction refers to estimating the likelihood of a crime being committed—including its location, time, perpetrator, victim, or the particular type, intensity, or manner of commission. While this concept has existed under various labels such as crime factors, risk factors, and dangerous conditions in earlier criminological theories, it is distinguished by its forward-looking and scientific orientation. It aligns with future-focused studies aimed at identifying and anticipating potential scenarios for better preparedness (Keramati Moazz, 2024).

AI-based crime prediction concerning women represents a modern, data-driven approach in criminological studies. Using advanced technologies like machine learning and big data analysis, it identifies patterns and contributing factors in the emergence of female delinquency. This approach can play an effective role within predictive and preventive theoretical frameworks, especially within situational prevention models.

Multi-layered data analysis (social, psychological, economic) through AI algorithms can assist in identifying women at risk of engaging in criminal behavior. Specifically, variables such as poverty, domestic violence, substance abuse, family criminal history, and social exclusion are highly modelable (Oberwittler & Wikström, 2009).

Machine learning can extract hidden patterns within female criminological datasets and use them to forecast criminal behavior. Algorithms like Random Forest and Neural Networks have demonstrated high accuracy in predicting delinquent tendencies among women in particular environments (e.g., underprivileged regions) (Berk et al., 2018).

Therefore, AI-enabled prediction of female delinquency—particularly through behavioral, environmental, and social analytics—provides the possibility for early intervention, targeted prevention, and intelligent policymaking. This trajectory could shift the future of criminology from reactive criminal justice responses to more anticipatory and humane justice systems.

# 3.2. Artificial Intelligence as a Tool for Preventing Recidivism Among Women Offenders

Artificial Intelligence (AI), as a tool for preventing recidivism among female offenders, constitutes a modern capacity within the realm of criminal justice and rehabilitative policymaking. Through the analysis of individual, environmental, and psychological data, AI can play a significant role in the resocialization of female offenders and in preventing their return to the cycle of criminal behavior.

Risk assessment tools for recidivism are also subject to the principles set forth in the *European Ethical Charter on the Use* of Artificial Intelligence in Judicial Systems, adopted by the Council of Europe on December 4, 2018. This charter, which serves a guiding role, offers recommendations to both public and private actors involved in the design, development, and deployment of AI systems. It rests on five fundamental principles: (1) respect for fundamental rights; (2) transparency; (3) human oversight of AI; (4) non-discrimination; and (5) security. Therefore, any behavior prediction algorithm must be designed and implemented in a way that aligns with these five principles (Ebrahimi, 2022).

In order to reconcile the advantages of AI with the requirements of due process and substantive principles such as individualized sentencing, risk analysis software should be considered as a complementary tool for police and judicial authorities in the decision-making process. Information obtained through these tools must be evaluated alongside other elements and components by the judiciary. This is because recidivism risk assessments offer indicators that must be interpreted in conjunction with case materials such as medical reports, criminal records, and the defendant's familial, social, and economic background (Ebrahimi, 2022).

Knowledge derived from the use of machine learning algorithms can provide anticipatory information vital to criminal justice agencies. Such information is essential for developing a comprehensive approach to crime prevention. The development of applied models for crime analysis and prediction can evolve into reliable tools that support decision-making in forecasting future criminal behavior and safeguarding internal security.

Machine learning algorithms, by precisely analyzing the criminal and personal data of female recidivists, can identify patterns in the factors contributing to repeat offenses. These include post-release living conditions, histories of domestic violence or substance abuse, and experiences of familial or social rejection. These analyses assist judicial and social institutions in developing targeted, personalized intervention programs for these individuals.

Accordingly, AI—with its predictive analytics, intelligent monitoring, and behavioral intervention design—can become an effective tool for preventing recidivism among female offenders. This technology not only reduces the social and human costs of criminal relapse but also, through data-driven rehabilitation, creates the conditions for sustainable and effective reintegration of women into society.

# 3.3. Intelligent Profiling of Offenders

One of the significant innovations introduced in Iran's 2013 Criminal Procedure Code was the provision for the creation of a "personality profile" in certain serious offenses and the mandatory requirement for its inclusion. This profile, influenced by criminological perspectives, was incorporated into Iranian procedural law to enhance understanding of the accused's psychological, social, and life background. It plays a critical role in the application of certain criminal procedures such as determining bail, issuing alternative decisions like suspension of prosecution, and imposing discretionary or individualized sentences (Rostami, 2018).

The concept of *intelligent personality profiling* refers to the use of AI tools and methods for large-scale data collection at the case formation stage, data analysis at the trial and judgment stages, and prediction of the likely outcomes of criminal behavior during the implementation phase, particularly regarding the risk of reoffending (Abbasi & Teimouri, 2023).

In other words, intelligent profiling of offenders does not imply a change in the essence of the personality profile itself, but rather the integration of big data technologies and analytical models to enable smart offender profiling and prediction of future criminal behavior.

Through the generation of precise analytical data, intelligent profiling can optimize environmental and managerial interventions and serve as an effective and personalized tool for situational crime prevention targeting women. This process shifts the focus from punitive responses to a strategy rooted in intelligent rehabilitation and prevention.

# 4. Reducing the Benefits of Female Delinquency Through Artificial Intelligence

Within the structure of situational crime prevention, a key strategy is the *reduction of the benefits* associated with committing a crime. This means that a potential offender, upon recognizing the inefficacy or futility of crime, is dissuaded from engaging in it. In this context, AI plays a significant role in identifying and analyzing the profit-driven motivations of offenders.

Specifically, in the domain of female delinquency, tools such as geographic crime analysis and intelligent mapping allow for the identification of crime-prone areas, temporal patterns, and environmental vulnerabilities. These tools facilitate targeted interventions that reduce both the profitability and feasibility of criminal actions. Additionally, the use of smart robots in roles such as monitoring, warning, or even active intervention restricts the opportunity for criminal behavior and neutralizes its potential returns.

This section emphasizes reducing the appeal of criminal acts for women by examining how technological capacities can be employed to render criminal activity unproductive or ineffective for the offender.

# 4.1. Geographic Analysis and Crime Mapping

Artificial Intelligence (AI) can analyze geographic data to identify areas with high crime incidence. These analyses enable authorities to make data-driven decisions and implement appropriate preventive measures in high-risk areas (Atlan, 2024).

Geographic analysis and *crime mapping*, as vital tools in situational prevention, can play a crucial role in identifying patterns of female delinquency and designing targeted interventions by leveraging AI technology. This modern approach not only facilitates spatially-oriented crime prevention but also enables policymakers and law enforcement agencies to adopt precise and forward-looking strategies based on data.

# 4.1.1. Identifying Female-Centric Crime Hotspots

By analyzing spatial and temporal data on crimes committed by women, AI algorithms can identify *hotspots* of female delinquency, distinguish types of common offenses (e.g., petty theft, economic crimes, or domestic violence) across different areas, and analyze the relationship between social environments, economic deprivation, and women's criminal behavior. These data can be visualized through heat maps or analytical maps, guiding preventive actions in specific locations.

# 4.1.2. Geospatial Prediction of Women's Criminal Behavior

AI-based spatial prediction technologies—such as spatiotemporal neural networks or deep learning models—can forecast criminal incidents in specific locations based on historical data. These predictions can inform the strategic deployment of law enforcement personnel, provision of counseling and social intervention services in high-risk neighborhoods, and the development of crime-deterrent environments (e.g., street lighting or surveillance cameras).

Moreover, geospatial data analyzed by AI can determine which areas have the highest concentration of female recidivists, where dropout rates, poverty, or domestic violence are most prevalent, and how supportive interventions (employment, education, counseling) should be targeted. This enables early preventive interventions through a situational and location-based approach.

Accordingly, combining geographic crime analysis with AI technology offers a precise, dynamic, and effective tool for situational prevention of female delinquency. This approach—through identifying criminogenic spaces, predicting criminal behavior, and spatially targeting policies—can significantly contribute to reducing crime rates among women, especially in vulnerable areas.

#### 4.2. The Use of Robots

The application of AI-powered robots in preventing female delinquency, as an innovative situational prevention strategy, can reduce crime opportunities, enhance surveillance, and enable rapid responses in high-risk environments. This function includes both direct intervention in high-risk scenarios and the monitoring and analysis of suspicious behaviors among at-risk women.

# 4.2.1. Surveillance and Patrolling Robots in Public and High-Risk Spaces

Intelligent robots equipped with machine vision, facial recognition, and behavioral processing can patrol public spaces—such as parks, marginalized neighborhoods, or commercial areas—and identify risky behaviors. These robots, particularly in environments where women are vulnerable (e.g., impoverished or high-risk zones), can effectively prevent their entry into criminal pathways.

In Singapore, patrolling robots have been employed to detect unlawful behaviors such as unauthorized gatherings or drug use in public spaces (Liang, 2021).

Thus, AI technologies can be employed to ensure public safety and security, including surveillance cameras, drones, and predictive policing programs capable of identifying behavioral patterns indicative of potential crimes. The use of AI in policing and urban control systems can also aid in crime prevention and the maintenance of public order (Abouzari, 2021).

# 4.2.2. Empowering At-Risk Women Through Companion and Educational Robots

Certain AI-based robots function as *companion robots*, providing psychological counseling, legal education, and life skills training to at-risk women, thus playing a vital role in both individual and situational prevention.

AI-enabled robots can independently monitor areas with high crime probability and notify security personnel upon detecting suspicious behavior. Drones can autonomously patrol high-crime zones and transmit live footage and data to security centers (Atlan, 2024).

Additionally, AI-powered robots are capable of real-time environmental analysis and issuing alerts to security or social services. For instance, if a woman with a criminal record appears in a high-risk or dangerous location, these robots can employ behavioral analysis algorithms to issue warnings and initiate deterrent actions.

# 5. Eliminating Excuses for Female Criminal Behavior Through Artificial Intelligence

According to Clarke, the final category of situational crime prevention techniques is *removing excuses*. These excuses play a significant role in the offender's decision-making process and transition from contemplation to action. Based on this technique, offenders often rationalize their behavior by offering justifications to themselves or others in an attempt to present the crime as logical or unavoidable (Farhadi Alashti, 2016).

During the process of criminal behavior, certain justifications facilitate the individual's inclination toward committing a crime. In fact, the existence of legally acknowledged excuses or mitigating circumstances can encourage the selection of criminal actions (Afrasiabi, 2010, p. 191). Therefore, implementing actions that reduce these justifications can significantly contribute to eliminating conducive crime opportunities and enhancing situational prevention (Niazpour, 2021).

In situational crime prevention, one of the most effective strategies is the *elimination of excuses and justifications* for criminal acts. This approach is based on the assumption that individuals, in many cases, construct rationalizations based on external factors or internal psychological, social, and structural obstacles to justify their criminal behavior. In the context of female delinquency, such justifications may stem from poverty, lack of awareness, social exclusion, familial pressure, or inability to comply with legal obligations.

AI, by facilitating smart regulation, digital policymaking, and norm enforcement, can effectively contribute to reducing these excuses. Smart technologies can eliminate both mental and practical barriers to legal compliance for women through precise information dissemination, interactive education, legal duty reminders, and simplified access to support services.

This section, with a focus on technological tools for easing compliance with norms and laws, outlines the role of AI in enabling timely engagement with at-risk women and reducing the underlying conditions of deviance.

# 5.1. Regulation and Rule-Making

Regulation and rule-making, as one of the strategies of situational crime prevention, plays a significant role in reducing female delinquency. When integrated with artificial intelligence (AI), this instrument can limit the circumstances conducive to crime and eliminate behavioral or structural excuses for offending.

Within the framework of the aforementioned preventive approach, managing the process of rational calculation is one of its essential components. Potential offenders are often motivated by various aspects of committing a crime, including culturally or socially normalized justifications intended to reduce perceived harm. Anticipating proper regulations and eliminating legislative incentives—such as requiring travelers to declare goods, mandating registration at hotels or public libraries—can help prevent the formation of criminal motives and decision-making (Niazpour, 2021).

In some cases, women may enter into the path of criminality due to structural factors (e.g., poverty, discrimination, economic dependency, or social exclusion). Through data-driven smart regulation based on AI, it is possible to rectify unjust access to resources, offer targeted support (e.g., algorithms for identifying women at risk of extreme poverty and providing support interventions), and implement more precise policies for socialization, skill training, and reintegration.

Accordingly, AI-based regulation can reduce crime opportunities and eliminate structural excuses for female delinquency through accurate data analysis, forecasting of regulatory gaps, and intelligent monitoring of law enforcement. This approach serves not only as a tool for modern criminal justice but also contributes to gender justice.

# 5.2. Norm Compliance Facilitators

Designing appropriate *facilitators for norm compliance* can be an effective situational prevention method, as these mechanisms make adherence to the law more feasible and reduce opportunities for delinquency (Niazpour, 2021).

Norm compliance facilitators are tools, mechanisms, or processes that promote adherence to social and legal rules and prevent deviation from norms. In the context of situational prevention of female delinquency, AI can function as a facilitator for norm enforcement by reducing behavioral, psychological, social, or structural justifications for women's criminal actions.

Many at-risk women may lack a clear understanding of legal norms or the consequences of deviant behavior. AI-based systems—such as virtual assistants or interactive platforms—can educate them in accessible language, warn against risky behaviors (e.g., apps that alert vulnerable women about dangerous relationships or situations), and provide self-learning rehabilitation programs or tools to strengthen social identity.

For example, chatbot robots in rehabilitation centers can teach women social norms and criminal laws in simplified language. AI can also create systems that remind users of legal or social obligations (e.g., visiting a social worker, paying restitution, or adhering to parole conditions) to prevent recidivism. An example would be an app that intelligently notifies formerly incarcerated women of necessary and time-bound actions.

In this way, AI can contribute to reducing the grounds for female delinquency by offering facilitators such as education, support, warnings, and easy access to assistance resources. Thus, AI becomes an advanced tool for removing excuses, increasing norm compliance, and reinforcing lawful social behavior.

# 6. Conclusion

Artificial Intelligence, with its unique capacities in data analysis, behavior prediction, and targeted intervention design, can serve as an efficient and advanced tool in the situational prevention of female delinquency. Across the three core dimensions of situational prevention—increasing the effort and risk of committing crime, reducing the benefits of crime, and eliminating excuses for criminal behavior—AI presents capabilities that challenge and reform traditional criminal justice policies.

- Increasing the effort and risk of female delinquency through tools such as intelligent offender profiling, criminal behavior prediction algorithms, and recidivism monitoring makes it more difficult for at-risk women to decide to commit a crime.
- Reducing the benefits of crime through geographic crime analysis, precise mapping of high-risk areas, and the deployment of surveillance and intervention robots in vulnerable environments diminishes the potential gains of crime for women and strengthens environmental security.
- 3. Eliminating excuses for crime through smart regulation and the design of norm compliance facilitators helps reduce motivational and justificatory factors for offending and guides women toward normative behavior.

Overall, AI not only enhances predictive and analytical capacities but also offers a personalized approach to criminal justice policies and social interventions. It presents an innovative model for preventing female delinquency that emphasizes reform and rehabilitation rather than merely punishment. This signifies a shift in criminal justice toward a smart and data-driven justice system.

#### **Authors' Contributions**

Authors contributed equally to this article.

# Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

#### **Ethical Considerations**

All procedures performed in this study were under the ethical standards.

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# **Conflict of Interest**

The authors report no conflict of interest.

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