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Organizing Cyber Justice for Children within Indonesia's Juvenile Justice System

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Original Article

Abstract

The rapid advancement of digital technology has increased children's involvement in cybercrime as both victims and offenders, creating challenges for Indonesia's juvenile justice system. This study examines the legal framework governing juvenile cybercrime, evaluates law enforcement practices at the Surakarta District Court, and proposes an adaptive child-centered justice model. Using an empirical legal method with a socio-legal approach, the research analyzes legislation, court decisions, documentary evidence, and semi-structured interviews with law enforcement officials. The findings reveal incomplete harmonization among the Electronic Information and Transactions (EIT) Law, the Juvenile Criminal Justice System Law, and the Child Protection Law, limiting the effective implementation of diversion and restorative justice. Persistent normative, institutional, technical, and sociological barriers further reduce enforcement effectiveness. The study concludes that regulatory harmonization, stronger institutional capacity, modern digital infrastructure, and an integrated child protection ecosystem are essential for an effective juvenile cyber justice system.

Keywords: *Cybercrime, Juvenile Justice, Law Enforcement, Diversion, Best Interests of the Child*

Abstrak

Perkembangan teknologi digital telah meningkatkan keterlibatan anak sebagai korban maupun pelaku kejahatan siber sehingga menimbulkan tantangan dalam sinkronisasi antara rezim hukum siber dan sistem peradilan pidana anak di Indonesia. Penelitian ini bertujuan menganalisis pengaturan hukum positif mengenai kejahatan siber yang melibatkan anak, mengevaluasi efektivitas penegakan hukum pidana anak di Pengadilan Negeri Surakarta, serta merumuskan model penguatan sistem penegakan hukum yang adaptif. Penelitian menggunakan metode hukum empiris dengan pendekatan socio-legal, melalui analisis peraturan perundang-undangan, putusan pengadilan, studi dokumentasi, dan wawancara dengan aparat penegak hukum. Hasil penelitian menunjukkan bahwa sinkronisasi UU ITE, UU SPPA, dan UU Perlindungan Anak belum sepenuhnya harmonis sehingga membatasi efektivitas diversifikasi dan restorative justice. Hambatan normatif, kelembagaan, teknis, dan sosiologis masih memengaruhi kualitas penegakan hukum. Penelitian menyimpulkan bahwa harmonisasi regulasi, peningkatan kapasitas aparat, penguatan infrastruktur digital, dan pengembangan ekosistem perlindungan anak berbasis kepentingan terbaik bagi anak merupakan prasyarat utama bagi sistem penegakan hukum pidana anak yang efektif di era transformasi digital.

Kata kunci: *Kejahatan Siber, Penegakan Hukum, Pidana Anak, Diversi, Kepentingan Terbaik*

1. INTRODUCTION

Rapid digital transformation has fundamentally reshaped Indonesian society through the widespread adoption of the internet, social media, and digital platforms. According to the Indonesian Internet Service Providers Association (APJII), Indonesia's internet penetration rate reached 79.05% in 2024, representing approximately 221 million users, with children and adolescents constituting one of the most active user groups.¹ While this development has enabled children to become digital natives who benefit from technological innovation, it has also increased their exposure to cybercrime, both as victims and as offenders.

The growing prevalence of cybercrime—including cyberbullying, cybergrooming, online sexual exploitation, personal data misuse, and online fraud—demonstrates that cyberspace presents increasingly complex challenges for child protection. The anonymous, transnational, and technology-driven nature of these offenses complicates investigation, evidence collection, and prosecution compared with conventional crimes.² These risks are further intensified by inadequate digital literacy, limited parental supervision, and children's insufficient understanding of the legal consequences of their online activities.³

Indonesia has established a comprehensive legal framework to address cybercrime involving children through Law No. 19 of 2016 on Electronic Information and Transactions (EIT Law), Law No. 11 of 2012 on the Juvenile Criminal Justice System (JCJS Law), and Law No. 35 of 2014 on Child Protection. Collectively, these statutes criminalize cyber offenses while safeguarding children's rights through the principles of the best interests of the child, diversion, and restorative justice. Nevertheless, their effective implementation remains constrained by limited digital forensic capabilities, inadequate electronic evidence infrastructure, and insufficient coordination among law enforcement institutions.

As argued by Arief, an effective criminal justice system must maintain an appropriate balance among legal certainty, justice, and social utility.⁴ Accordingly, the resolution of cybercrime cases involving children should extend beyond punitive objectives to ensure the protection of children's rights, rehabilitation, and reintegration through adaptive and child-centered justice mechanisms.

¹ Asosiasi Penyelenggara Jasa Internet Indonesia, "APJII Jumlah Pengguna Internet Indonesia Tembus 221 Juta Orang," *Asosiasi Penyelenggara Jasa Internet Indonesia*, 2024, <https://inet.detik.com/cyberlife/d-7169749/apji-jumlah-pengguna-internet-indonesia-tembus-221-juta-orang>.

² Sechilia Herdianti Nur and Padrisan Jamba, "Hukum Internasional Dan Tantangan Cybersecurity: Keamanan Digital Di Era Global," *Prosiding Seminar Nasional Ilmu Sosial Dan Teknologi* 7, no. 1 (2025): 63–66, <https://doi.org/10.33884/psnistek.v7i1.10724>.

³ Neneng Pratiwi Zahra and Bima Guntara, "Cybercrime Di Indonesia, Analisis Kriminologi Terhadap Ancaman Kejahatan Digital," *Social Science Academic* 4, no. 1 (2026): 1177–88, <https://doi.org/10.37680/ssa.10323>.

⁴ Barda Nawawi Arief, *Masalah Penegakan Hukum Dan Kebijakan Hukum Pidana Dalam Penanggulangan Kejahatan*, 5th ed. (Kencana-Prenada Media Group, 2018).

Previous studies have identified both the strengths and limitations of Indonesia's legal framework for addressing cybercrime involving children. Amelia and Aisyah found that although Law No. 35 of 2014 provides a robust normative foundation for protecting child victims, its implementation remains hindered by weak inter-agency coordination, limited institutional capacity, and low levels of digital literacy.⁵ Likewise, Caesar et al., Dinda, and Rozak concluded that the EIT Law serves as the principal legal instrument for combating cybercrime; however, its effectiveness is limited by inadequate digital forensic resources, shortages of qualified personnel, and insufficient coordination among law enforcement agencies.⁶ These studies primarily evaluate law enforcement in general and do not specifically examine children as legal subjects entitled to special protection under the Juvenile Criminal Justice System.

Research focusing on child victims of cybercrime has emphasized the need to integrate penal and non-penal approaches while strengthening digital literacy programs.⁷ Conversely, studies by Prasetya et al. and Ruslan underscore the importance of diversion and restorative justice in resolving cases involving juvenile cyber offenders.⁸ However, these studies remain predominantly normative and do not assess how these principles are implemented during criminal proceedings or reflected in judicial decisions. Similarly, Karuniawan identified regulatory gaps concerning cyber-grooming but did not examine their implications for the juvenile justice system.⁹

Although previous scholarship has explored cybercrime law enforcement, child protection, and restorative justice as separate areas of inquiry, limited attention has been given to their integration within judicial practice. This study addresses that gap by examining the implementation of the Electronic Information and Transactions Law and the Juvenile Criminal Justice System Law in cybercrime cases involving children

⁵ Nafisa Mela Amelia and Eny Nur Aisyah, "Analisis Yuridis Penegakan Hukum Terhadap Penculikan Anak Berbasis Media Sosial Di Indonesia Dalam Perspektif UU No. 35 Tahun 2014," *Al-Zayn: Jurnal Ilmu Sosial & Hukum* 3, no. 6 (2025): 10532–42, <https://doi.org/10.61104/alz.v3i6.2816>.

⁶ Leon Caesar et al., "Efektivitas Penegakan Hukum Terhadap Tindak Pidana Siber Oleh Unit Cybercrime Di Polresta Banyumas," *Soedirman Law Review* 3, no. 1 (2021): 161–69, <https://doi.org/10.20884/1.slr.2021.3.1.128>; Adinda Lola Sariani Dinda, "Efektivitas Penegakan Hukum Terhadap Kejahatan Siber Di Indonesia," *Al Dalil: Jurnal Ilmu Sosial, Politik, Dan Hukum* 2, no. 2 (2024): 69–77, <https://doi.org/10.58707/aldalil.v2i2.777>; Muhammad Rozak, "Penerapan Hukum Pidana Terhadap Pelaku Kejahatan Siber Di Indonesia," *Causa: Jurnal Hukum Dan Kewarganegaraan* 16, no. 6 (2026): 1311–20, <https://doi.org/10.6679/ns0r3d21>.

⁷ Hardianto Djanggih, "Konsepsi Perlindungan Hukum Bagi Anak Sebagai Korban Kejahatan Siber Melalui Pendekatan Penal Dan Non Penal," *Mimbar Hukum: Fakultas Hukum Universitas Gadjah Mada* 30, no. 2 (2018): 316, <https://doi.org/10.22146/jmh.32017>; Irvan Reynaldy Falevi, "Efektivitas Penegakan Hukum Pelaku Tindak Pidana Cyberbullying Terhadap Anak Dalam Perspektif Hukum Positif" (Universitas Islam Sultan Agung, 2025), <https://repository.unissula.ac.id/44600/>.

⁸ Muhammad Ibnu Maulana Ruslan, "Keadilan Restoratif Bagi Anak Pelaku Tindak Pidana Siber Di Indonesia: Analisis Normatif Dan Perspektif Kriminologi," *Indonesian Journal of Intellectual Publication* 5, no. 3 (2025): 232–45, <https://doi.org/10.51577/ijipublication.v5i3.711>; Eko Yudha Prasetya et al., "Analisis Yuridis Terhadap Anak Yang Berhadapan Dengan Hukum Terkait Kejahatan Siber Menurut Regulasi Di Indonesia," *Jurnal Pemandhu* 6, no. 2 (2026): 148–64.

⁹ Fathony Karuniawan, "Analisis Hukum Terhadap Cyber Grooming Sebagai Ancaman Baru Bagi Perlindungan Anak Indonesia," *Seikat: Jurnal Ilmu Sosial, Politik Dan Hukum* 5, no. 2 (2026): 178–86, <https://doi.org/10.55681/seikat.v5i2.1927>.

adjudicated by the Surakarta District Court. Based on these findings, the study proposes an adaptive model of juvenile cyber justice that strengthens the integration of cyber law enforcement with child protection principles in Indonesia's evolving digital legal landscape.

This study aims to analyze the criminal law enforcement system governing cybercrime cases involving children at the Surakarta District Court. Specifically, it examines the legal synchronization among the Electronic Information and Transactions (EIT) Law, the Juvenile Criminal Justice System (JCJS) Law, and the Child Protection Law; evaluates the effectiveness of implementing the principles of the best interests of the child, diversion, and restorative justice; and identifies the normative, institutional, technical, and sociological barriers that hinder effective law enforcement. The findings are expected to provide policy recommendations for strengthening a juvenile justice system that is responsive to technological advancements and capable of addressing the unique challenges posed by cybercrime involving children. Furthermore, this study seeks to contribute to the development of Indonesia's criminal law policy by promoting a more integrated, child-centered, and digitally adaptive framework for juvenile cyber justice.

2. RESEARCH METHODOLOGY

This study employs an empirical legal research design using a socio-legal approach to examine the implementation of criminal law enforcement in cybercrime cases involving children at the Surakarta District Court. The socio-legal approach conceptualizes law not only as a body of legal norms (law in books) but also as a social institution operating in practice (law in action), thereby enabling an assessment of the effectiveness of implementing the Electronic Information and Transactions (EIT) Law, the Juvenile Criminal Justice System (JCJS) Law, and the Child Protection Law in the adjudication of juvenile cybercrime cases.

Primary data were collected through semi-structured interviews with key legal practitioners, including juvenile court judges, public prosecutors, investigators from the Women and Children Protection Unit (PPA Unit), community counselors from the Correctional Center (Balai Pemasyarakatan—BAPAS), and defense attorneys. Participants were selected using purposive sampling based on their professional expertise and direct involvement in handling juvenile cybercrime cases. Secondary data consisted of relevant statutes and regulations, judicial decisions, scholarly books, peer-reviewed journal articles, and official government documents.

Data collection was conducted through a combination of literature review, document analysis, semi-structured interviews, and non-participant observation. To enhance the credibility and trustworthiness of the findings, source triangulation and methodological triangulation were employed throughout the research process.

The data were analyzed using an interactive qualitative analysis model involving three stages: data reduction, data display, and conclusion drawing. The analysis was guided by Friedman's Legal System Theory, which emphasizes the interrelationship among legal substance, legal structure, and legal culture,¹⁰ together with Arief's Law Enforcement Theory, which underscores the need to balance legal certainty, justice, and social utility.¹¹ These theoretical frameworks were used to evaluate the effectiveness of Indonesia's juvenile cybercrime law enforcement system and to identify the normative, institutional, technical, and sociological factors influencing its implementation.

3. RESEARCH RESULT AND DISCUSSION

3.1. Indonesia's Legal Framework Governing Cybercrime Involving Children

The Electronic Information and Transactions (EIT) Law serves as Indonesia's primary legal instrument for addressing cybercrime by criminalizing a wide range of unlawful conduct, including the dissemination of illegal digital content, unauthorized access to electronic systems, manipulation of electronic information, online defamation, the distribution of false information, and interference with electronic systems. In the context of child protection, Article 27(1) plays a pivotal role by providing the legal basis for prosecuting the distribution of pornographic content involving children as victims of technology-facilitated sexual exploitation. Likewise, Article 45(3) is frequently invoked in cyberbullying cases that cause psychological harm to children. In addition, Article 52(1) prescribes enhanced criminal penalties when the victim is a child, reflecting the legislature's recognition of children as a particularly vulnerable group entitled to heightened legal protection.

Despite its comprehensive criminal provisions, the EIT Law is primarily offense-oriented, emphasizing the criminalization of unlawful conduct rather than the protection of children as legal subjects. The statute does not establish specific procedural mechanisms for handling cases in which the offender is a child. Consequently, when children are alleged to have committed cybercrimes, law enforcement authorities must apply the provisions of the Juvenile Criminal Justice System (JCJS) Law, which functions as the *lex specialis* governing juvenile criminal proceedings. In practice, the interaction between these two statutes frequently creates interpretive challenges, particularly in balancing the principle of legal certainty embodied in the EIT Law with the child protection principles mandated by the JCJS Law.

The JCJS Law represents a fundamental shift in Indonesia's juvenile justice policy by replacing a punitive approach with a restorative justice model centered on the best interests of the child. This policy is implemented through the mandatory application of

¹⁰ Lawrence M. Friedman, *The Legal System: A Social Science Perspective* (Russell Sage Foundation, 1975).

¹¹ Arief, *Masalah Penegakan Hukum Dan Kebijakan Hukum Pidana Dalam Penanggulangan Kejahatan*.

diversion at every stage of the criminal justice process, including investigation, prosecution, and trial. Diversion seeks to shield children from the adverse consequences of formal criminal proceedings, facilitate reconciliation between offenders and victims, and promote the child's rehabilitation and social reintegration.¹² Nevertheless, the application of diversion in cybercrime cases remains problematic because several offenses under the EIT Law carry a maximum penalty of seven years' imprisonment, thereby exceeding the statutory threshold for diversion under Article 7 of the JCJS Law. As a result, some juvenile cyber offenders continue to be prosecuted through formal criminal proceedings, even when their conduct is closely associated with inadequate digital literacy, insufficient parental supervision, and developmental or psychological immaturity.

The relationship between the Child Protection Law and the JCJS Law further strengthens the legal protection afforded to child victims of cybercrime. Article 76E of Law No. 35 of 2014 on Child Protection prohibits all forms of violence, threats, coercion, deception, or inducement used to involve children in indecent acts. This provision provides the principal legal basis for prosecuting offenses such as cyber-grooming, sextortion, online sexual exploitation, and other forms of technology-enabled abuse targeting children. However, the rapid evolution of cybercrime has significantly outpaced legislative development. Emerging offenses—including AI-generated child sexual abuse material, deepfake pornography involving children, and other forms of artificial intelligence-enabled sexual exploitation—have not yet been explicitly recognized as distinct criminal offenses. Consequently, law enforcement authorities continue to rely on broad judicial interpretation of existing statutory provisions when addressing these forms of digital abuse.¹³

Taken together, the EIT Law, the JCJS Law, and the Child Protection Law constitute a complementary legal framework for addressing cybercrime involving children. The EIT Law establishes the substantive criminal offenses, the JCJS Law governs procedural safeguards and juvenile justice mechanisms, while the Child Protection Law provides the normative foundation for safeguarding children's rights as both victims and offenders. However, the integration of these statutes remains largely administrative rather than substantive. Their implementation has yet to achieve full doctrinal and procedural harmonization, resulting in legal uncertainty for law enforcement officials when determining the appropriate legal framework in cases where children simultaneously occupy the dual status of victim and offender. This lack of

¹² Bondan Namikotomo, "The Effectiveness of the Implementation of Diversion for Children of Criminal Offenders in Ternate City," *Majapahit Journal of Islamic Finance and Management* 5, no. 1 (2025): 599–611, <https://doi.org/10.31538/mjifm.v5i1.356>.

¹³ Nurul Aulia Fitriani and Endik Wahyudi, "Kebijakan Formulasi Tindak Pidana Deepfake Dalam Undang-Undang Informasi Dan Transaksi Elektronik (UU ITE) Dan Undang-Undang Pelindungan Data Pribadi (UU PDP) Di Indonesia," *Jurnal Hukum To-Ra: Hukum Untuk Mengatur Dan Melindungi Masyarakat* 12, no. 1 (2026): 157–69, <https://doi.org/10.55809/tora.v12i1.647>.

substantive synchronization continues to impede the development of a coherent, child-centered cyber justice system in Indonesia.

This study reinforces the findings of Djanggih, who argued that protecting children from cybercrime cannot rely exclusively on penal measures but must also incorporate non-penal strategies, including education, digital literacy, and preventive interventions.¹⁴ The findings are also consistent with those of Karuniawan, who identified a regulatory gap concerning the criminalization of cyber-grooming under Indonesian positive law.¹⁵ Likewise, this study supports the conclusions of Prasetya et al., who found that the implementation of the Juvenile Criminal Justice System (JCJS) Law in cybercrime cases continues to face significant challenges, including limited institutional capacity, inadequate rehabilitation facilities, and low levels of public digital literacy.¹⁶ However, the present study extends previous research by demonstrating that one of the most fundamental obstacles lies in the insufficient substantive harmonization between Indonesia's cybercrime regulatory framework and its juvenile criminal justice system.

Consistent with Friedman's Legal System Theory, the effectiveness of legal regulation depends not only on the quality of legal substance but also on the performance of legal structure and legal culture.¹⁷ Although the Electronic Information and Transactions (EIT) Law, the Juvenile Criminal Justice System (JCJS) Law, and the Child Protection Law collectively provide a comprehensive legal foundation, significant normative gaps remain regarding emerging forms of cybercrime. From the perspective of legal structure, coordination among the police, prosecutors, courts, correctional institutions, and child protection agencies remains inadequate in handling cybercrime cases involving children. From the perspective of legal culture, insufficient digital literacy among children, parents, educators, and the broader community continues to increase children's vulnerability to cybercrime, both as victims and as offenders.

Viewed through the lens of Arief's Law Enforcement Theory, which conceptualizes criminal law as an integral component of broader social policy, law enforcement in cases involving juvenile cybercrime should extend beyond punitive objectives. Instead, it should prioritize child protection, rehabilitation, education, and prevention while ensuring accountability that is proportionate to children's developmental capacities.¹⁸ Accordingly, greater synchronization between the EIT Law, the JCJS Law, and the Child Protection Law should be pursued not only through

¹⁴ Djanggih, "Konsepsi Perlindungan Hukum Bagi Anak Sebagai Korban Kejahatan Siber Melalui Pendekatan Penal Dan Non Penal."

¹⁵ Karuniawan, "Analisis Hukum Terhadap Cyber Grooming Sebagai Ancaman Baru Bagi Perlindungan Anak Indonesia."

¹⁶ Prasetya et al., "Analisis Yuridis Terhadap Anak Yang Berhadapan Dengan Hukum Terkait Kejahatan Siber Menurut Regulasi Di Indonesia."

¹⁷ Friedman, *The Legal System: A Social Science Perspective*.

¹⁸ Arief, *Masalah Penegakan Hukum Dan Kebijakan Hukum Pidana Dalam Penanggulangan Kejahatan*.

legislative reform but also through the harmonization of law enforcement policies, enhanced institutional capacity, specialized training for law enforcement personnel, the development of standardized guidelines for handling juvenile cybercrime cases, and periodic regulatory reform capable of responding to rapid technological advancements.

Indonesia's positive legal framework provides a reasonably robust normative basis for addressing cybercrime involving children. Nevertheless, the effectiveness of legal protection remains constrained by incomplete regulatory harmonization, the absence of explicit legal provisions governing emerging forms of cybercrime, and the conceptual tension between the predominantly punitive orientation of the EIT Law and the restorative justice philosophy underpinning the JCJS Law. These findings underscore the need for comprehensive legal policy reform through substantive harmonization of relevant legislation, the adoption of integrated procedural guidelines for juvenile cybercrime cases, and the strengthening of a child-centered justice framework grounded in the best interests of the child principle. Such reforms are essential for developing a more coherent, adaptive, and responsive legal system capable of addressing the evolving challenges of cybercrime in the era of digital transformation.

3.2. Effectiveness of Juvenile Criminal Law Enforcement in Cybercrime Cases at the Surakarta District Court

The findings indicate that the effectiveness of criminal law enforcement in cybercrime cases involving children at the Surakarta District Court remains suboptimal. Although the principle of child protection is consistently considered throughout the judicial process, its implementation continues to be constrained by normative, institutional, technical, and sociocultural challenges that diminish the quality of legal protection afforded to children.

Data obtained from the Case Tracking Information System (Sistem Informasi Penelusuran Perkara—SIPP) of the Surakarta District Court show that, between 2021 and 2023, the court adjudicated 23 juvenile cybercrime cases. Of these, 14 cases (60.87%) involved the dissemination of content violating public morality under Article 27 of the Electronic Information and Transactions (EIT) Law, six cases (26.09%) concerned online defamation and hate speech disseminated through electronic media, and three cases (13.04%) involved online fraud. This distribution indicates that the most prevalent forms of cybercrime committed by children involve the misuse of digital media and online content rather than technically sophisticated offenses such as hacking or unauthorized access to electronic systems. These findings further suggest that juvenile involvement in cybercrime is driven primarily by inadequate digital literacy, insufficient parental supervision, and intensive social media use rather than by advanced technological expertise.

Of the 23 cases examined, only eight cases (34.78%) were successfully resolved through diversion, while 15 cases (65.22%) proceeded through formal criminal trials. The relatively low rate of diversion indicates that non-judicial dispute resolution mechanisms have not been effectively implemented in juvenile cybercrime cases. Interviews with juvenile court judges revealed that this outcome is largely attributable to the statutory characteristics of several offenses under the EIT Law, many of which carry a maximum penalty of seven years' imprisonment and therefore fall outside the diversion eligibility criteria established under Article 7 of the Juvenile Criminal Justice System (JCJS) Law. Moreover, several cases involved repeat offenders or multiple child victims, circumstances that legally precluded the application of diversion. These findings suggest that the limited use of diversion is attributable not only to the discretion exercised by law enforcement authorities but also to structural constraints embedded within the existing legislative framework.

From the perspective of Soekanto's Theory of Legal Effectiveness, the effectiveness of law enforcement is determined by the interaction of five interrelated factors: legal substance, law enforcement institutions, supporting facilities and infrastructure, society, and legal culture.¹⁹ With respect to legal substance, this study identifies a normative tension between the EIT Law, which adopts a predominantly punitive approach to combating cybercrime, and the JCJS Law, which prioritizes child protection, rehabilitation, and restorative justice. In practice, judges frequently face a difficult balancing exercise between imposing criminal sanctions prescribed by the EIT Law and fulfilling their statutory obligation to uphold the best interests of the child. The absence of explicit provisions harmonizing these two legal regimes significantly increases reliance on judicial discretion to reconcile the competing objectives of legal certainty and restorative justice.

From the perspective of the legal structure, the competence of law enforcement personnel in handling juvenile cybercrime cases remains an important institutional challenge. Interviews with juvenile judges revealed that many judges responsible for adjudicating cybercrime cases have not received specialized certification or advanced training in digital forensics. Consequently, the assessment of electronic evidence depends heavily on expert testimony provided by the Cyber Investigation Directorate of the Central Java Regional Police and the Digital Forensic Laboratory of the Indonesian National Police. This dependence not only prolongs criminal proceedings but may also affect judicial evaluation of the authenticity, reliability, and evidentiary value of electronic evidence presented during trial. The findings underscore the need to strengthen institutional capacity through specialized training, improved technological resources, and greater forensic expertise to enhance the effectiveness and efficiency of juvenile cybercrime adjudication.

¹⁹ Soerjono Soekanto, *Faktor Faktor Yang Mempengaruhi Penegakkan Hukum*, 1st ed. (Rajawali Pers, 2013).

From the perspective of facilities and infrastructure, the Surakarta District Court continues to face significant limitations in supporting the adjudication of juvenile cybercrime cases. The court lacks dedicated technological facilities for the examination and verification of digital evidence, including technology-enabled courtrooms, specialized software for electronic evidence analysis, and on-site digital forensic support. These deficiencies reduce the efficiency of judicial proceedings and increase reliance on external forensic institutions. From a societal perspective, the findings indicate that limited digital literacy among parents and the broader community contributes to delays in reporting cybercrime and weak supervision of children's online activities. In addition, persistent social stigma toward children in conflict with the law presents a substantial obstacle to their rehabilitation and reintegration following judicial proceedings. The prevailing legal culture, which often perceives cybercrime involving children merely as a form of juvenile delinquency, also contributes to the inadequate handling of such cases from the earliest stages of the criminal justice process.

Despite these challenges, the Surakarta District Court has made consistent efforts to uphold the best interests of the child principle throughout the adjudication process. In cases that satisfy the statutory requirements for diversion, diversion conferences are conducted in accordance with Supreme Court Regulation No. 4 of 2014, with juvenile judges serving as facilitators and involving community counselors, parents or guardians, victims, and, where appropriate, community leaders. Diversion agreements typically emphasize apologies, restitution, educational guidance, psychological counseling, and enhanced parental supervision. This practice reflects the court's commitment to prioritizing rehabilitation, reconciliation, and social restoration over punitive sanctions, thereby reducing the likelihood of reoffending.

Even in cases that do not qualify for diversion, judges continue to incorporate the principles of restorative justice into their judicial reasoning. The analysis of court decisions demonstrates that judges consistently consider factors such as the child's age, psychological maturity, family circumstances, educational background, social environment, and prospects for rehabilitation as mitigating circumstances during sentencing. In cases involving the dissemination of pornographic content affecting child victims, judges frequently impose sentences that are less severe than those requested by prosecutors, recognizing the importance of safeguarding the child's future while simultaneously ensuring adequate protection for victims. These findings indicate that restorative justice is implemented not only through formal diversion mechanisms but also through sentencing practices that emphasize proportionality, rehabilitation, and the child's long-term development.

The present findings support those of Prasetya et al., who reported that the implementation of the Juvenile Criminal Justice System (JCJS) Law continues to be constrained by limited institutional capacity, inadequate rehabilitation services, and low

levels of public digital literacy.²⁰ They also corroborate the conclusions of Ruslan, who argued that restorative justice constitutes the most appropriate approach to addressing juvenile cybercrime because it simultaneously reduces recidivism and promotes children's psychological and social development.²¹ However, this study further demonstrates that the relatively low diversion rate should not be interpreted solely as evidence of ineffective implementation of the JCJS Law. Rather, it largely reflects the legislative structure of the Electronic Information and Transactions (EIT) Law, under which several cybercrime offenses carry relatively severe statutory penalties that restrict eligibility for diversion.

Consistent with Soekanto's Theory of Legal Effectiveness, the effectiveness of juvenile criminal law enforcement cannot be evaluated solely on the basis of the number of cases adjudicated or resolved through diversion. Instead, effectiveness should be assessed by the legal system's capacity to achieve an appropriate balance among community protection, legal certainty, and the best interests of the child.²² Achieving this balance in the digital era requires comprehensive reforms, including substantive harmonization of the EIT Law and the JCJS Law, enhanced digital competencies among law enforcement personnel, the provision of technology-based judicial infrastructure, and the promotion of digital literacy as a preventive strategy against cybercrime involving children.

The findings suggest that juvenile criminal law enforcement in cybercrime cases at the Surakarta District Court is moderately effective, as the principles of child protection and restorative justice have been incorporated into judicial practice. Nevertheless, its effectiveness remains constrained by persistent regulatory inconsistencies, limited technical expertise among law enforcement officials, inadequate digital judicial infrastructure, and a legal culture that has yet to fully recognize the unique characteristics of cybercrime involving children. These findings underscore the need for comprehensive legal and institutional reforms that more effectively integrate punitive and restorative approaches, thereby enabling Indonesia's juvenile justice system to provide legal protection that is more coherent, child-centered, and responsive to the evolving challenges of the digital age.

3.3. Barriers to Juvenile Cybercrime Law Enforcement and a Model for Strengthening an Adaptive Law Enforcement System Justice

The first set of challenges arises from the juridical and normative framework. Although Indonesia has enacted Law No. 19 of 2016 on Electronic Information and Transactions

²⁰ Prasetya et al., "Analisis Yuridis Terhadap Anak Yang Berhadapan Dengan Hukum Terkait Kejahatan Siber Menurut Regulasi Di Indonesia."

²¹ Ruslan, "Keadilan Restoratif Bagi Anak Pelaku Tindak Pidana Siber Di Indonesia."

²² Soekanto, *Faktor Faktor Yang Mempengaruhi Penegakkan Hukum*.

(EIT Law), Law No. 11 of 2012 on the Juvenile Criminal Justice System (JCJS Law), and Law No. 35 of 2014 on Child Protection, these statutes have yet to form a fully harmonized legal framework for addressing cybercrime involving children. The EIT Law was primarily designed to criminalize various forms of cybercrime and therefore adopts a predominantly punitive approach to law enforcement. By contrast, the JCJS Law is founded on a child-centered paradigm that emphasizes diversion and restorative justice. These divergent legislative orientations create normative tensions when children are prosecuted for cybercrime, particularly in cases involving offenses punishable by relatively severe criminal sanctions that render diversion unavailable under the statutory framework. In addition, a significant regulatory gap exists regarding the treatment of children under the age of twelve who engage in cybercrime, despite the increasing access of this age group to the internet and digital technologies. This regulatory gap illustrates that technological development has progressed more rapidly than the evolution of Indonesia's legal framework.

A second major challenge concerns the institutional capacity and professional competence of law enforcement personnel. Interviews conducted during this study revealed that many juvenile judges, public prosecutors, investigators, and defense attorneys have not received specialized training in digital forensics, cybersecurity, electronic metadata analysis, or the evaluation of digital evidence. Consequently, the adjudication of juvenile cybercrime cases remains heavily dependent on expert testimony provided by the Cyber Investigation Directorate of the Indonesian National Police and the National Police Digital Forensic Laboratory. This dependence contributes to prolonged judicial proceedings and increases the overall cost of litigation. These findings indicate that conventional legal expertise alone is no longer sufficient to address the increasingly sophisticated nature of cybercrime. Instead, law enforcement officials require multidisciplinary competencies that integrate criminal law, information technology, digital forensics, child psychology, and child rights protection.

Technical limitations also constitute a significant barrier to effective law enforcement. The Surakarta District Court lacks specialized courtroom facilities for the presentation and examination of digital evidence, standardized systems for managing electronic evidence, and advanced software for digital forensic analysis. As a result, the authentication and evaluation of electronic evidence continue to rely on conventional procedures that are not well suited to the technological complexity of cybercrime. Furthermore, budgetary constraints have limited opportunities for specialized professional training and technological modernization. These findings suggest that strengthening the juvenile criminal justice system requires not only legislative reform but also sustained investment in digital infrastructure and the continuous development of institutional and human resource capacity.

The child protection support system for victims of cybercrime also remains inadequate. Although the Child Protection Law and the JCJS Law recognize the rights of child victims to receive protection, rehabilitation, and psychosocial assistance throughout the criminal justice process, these guarantees have not been fully realized in practice. The availability of child psychologists, specialized social workers, and legal professionals with expertise in cybercrime involving children remains limited. Moreover, coordination among the courts, the Correctional Center (Balai Pemasyarakatan), the Office of Women's Empowerment and Child Protection, the police, and rehabilitation service providers has yet to become fully integrated. Consequently, psychological recovery services for child victims—particularly victims of technology-facilitated sexual exploitation—often cease once a court judgment becomes final, leaving no comprehensive mechanism for long-term rehabilitation and social reintegration.

The findings further demonstrate that these barriers are interconnected and collectively constitute a systemic challenge to effective juvenile cybercrime law enforcement. Consistent with Friedman's Legal System Theory, the effectiveness of law enforcement depends on the harmonious interaction among legal substance, legal structure, and legal culture.²³ The present study indicates that all three dimensions continue to exhibit significant weaknesses. From the perspective of legal substance, regulatory fragmentation and inconsistencies remain unresolved. From the perspective of legal structure, institutional capacity and technical expertise remain insufficient to address the demands of technology-driven criminal investigations. From the perspective of legal culture, low levels of digital literacy, inadequate parental supervision, and the widespread perception that cybercrime committed by children constitutes merely a form of ordinary juvenile delinquency continue to undermine effective child protection. This prevailing legal culture diminishes public awareness of the unique risks children face in digital environments and weakens societal support for a child-centered approach to cybercrime prevention and law enforcement.

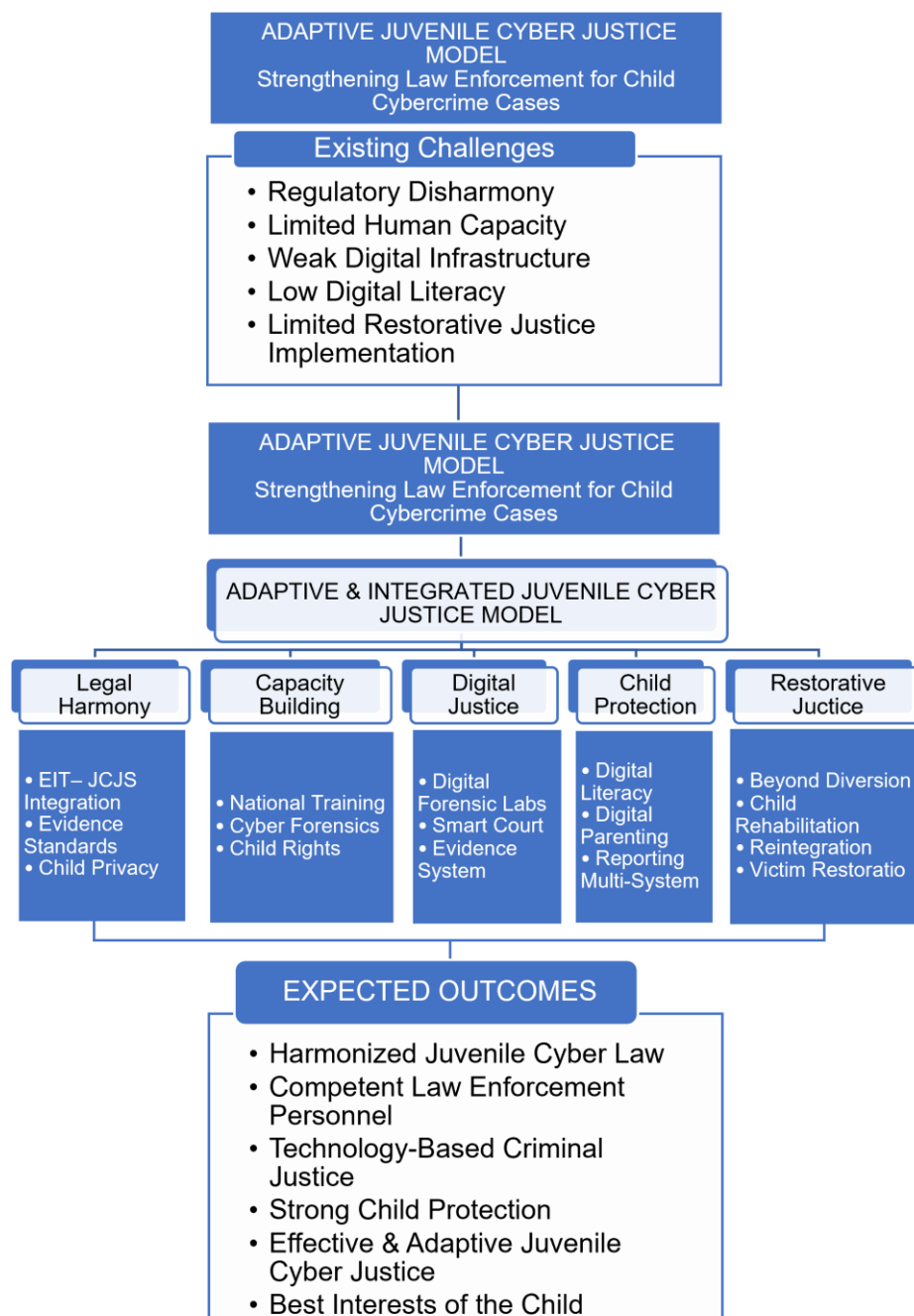
The findings of this study reinforce those of Djanggih, who argued that protecting children from cybercrime requires an integrated strategy combining penal and non-penal approaches.²⁴ The results also support Karuniawan, who highlighted the need for a regulatory framework that is more responsive to emerging forms of digital crime, particularly cyber-grooming.²⁵ Likewise, this study corroborates the findings of Prasetya et al., who identified limited institutional capacity, inadequate rehabilitation services, and low levels of digital literacy as the principal barriers to the effective implementation of

²³ Friedman, *The Legal System: A Social Science Perspective*.

²⁴ Djanggih, "Konsepsi Perlindungan Hukum Bagi Anak Sebagai Korban Kejahatan Siber Melalui Pendekatan Penal Dan Non Penal."

²⁵ Karuniawan, "Analisis Hukum Terhadap Cyber Grooming Sebagai Ancaman Baru Bagi Perlindungan Anak Indonesia."

the Juvenile Criminal Justice System (JCJS) Law.²⁶ However, the present study demonstrates that these challenges cannot be addressed through isolated sectoral reforms, as they originate from the absence of an integrated juvenile cyber justice system capable of responding to the evolving dynamics of digital technology. In response to these challenges, this study proposes an adaptive and integrated model for strengthening juvenile cybercrime law enforcement.



²⁶ Prasetya et al., "Analisis Yuridis Terhadap Anak Yang Berhadapan Dengan Hukum Terkait Kejahatan Siber Menurut Regulasi Di Indonesia."

Figure 1. Adaptive Juvenile Cyber Justice Model

First, from a regulatory perspective, greater harmonization between the Electronic Information and Transactions (EIT) Law and the Juvenile Criminal Justice System (JCJS) Law is required through implementing regulations that specifically govern procedures for handling cybercrime cases involving children. Such regulations should establish standards for the collection and admissibility of electronic evidence, provide safeguards for protecting children's identities during digital forensic investigations, and develop clear guidelines for applying restorative justice in juvenile cybercrime cases.²⁷

Second, the Supreme Court of Indonesia, the Attorney General's Office, and the Indonesian National Police should establish a national certification program in juvenile cyber law for judges, prosecutors, investigators, and defense attorneys. The program should integrate training in digital forensics, cybersecurity, child development psychology, and children's rights, ensuring that law enforcement personnel possess the multidisciplinary competencies necessary to address the complexities of technology-related offenses involving children.²⁸

Third, the government should invest in strengthening the technological capacity of the juvenile justice system by establishing regional digital forensic laboratories, implementing an integrated electronic evidence management system, and developing technology-enabled juvenile courtrooms equipped to examine and manage digital evidence efficiently. These institutional reforms would improve the quality, reliability, and timeliness of digital evidence examination while enhancing the overall effectiveness of judicial proceedings.²⁹

Fourth, this study emphasizes the importance of developing a comprehensive child digital protection ecosystem through preventive measures. These include strengthening digital literacy education in schools, expanding digital parenting programs, establishing child-friendly cybercrime reporting mechanisms, and promoting collaboration among government agencies, educational institutions, digital platform providers, civil society organizations, and local communities. Such preventive initiatives constitute an essential component of contemporary criminal policy because they reduce children's vulnerability to cybercrime, both as victims and as offenders.³⁰

²⁷ Parasya Aidilla Monoarfa et al., "Digital Restorative Paradigm: Legal Reconstruction of Criminal Responsibility for Child Cyberbullying Perpetrators Based on the Spwa Law," *Syiah Kuala Law Review* 9, no. 3 (2025): 357–72.

²⁸ Sheila Ramaswamy et al., "Transdisciplinary Approaches in Assimilating Power and Diversity to Address Children's Interface with the Law: A Case Study from India," in *Transdisciplinarity for Transformation*, ed. Barbara J. Regeer et al. (Springer International Publishing, 2024), https://doi.org/10.1007/978-3-031-60974-9_10.

²⁹ Esther C. A. Mertens et al., "Bringing Technology to Justice-Involved Youth," *Research on Child and Adolescent Psychopathology* 54, no. 2 (2026): 37, <https://doi.org/10.1007/s10802-026-01428-z>.

³⁰ Jessica E. Opie et al., "Universal Digital Programs for Promoting Mental and Relational Health for Parents of Young Children: A Systematic Review and Meta-Analysis," *Clinical Child and Family Psychology Review* 27, no. 1 (2024): 23–52, <https://doi.org/10.1007/s10567-023-00457-0>.

Fifth, the scope of restorative justice should be expanded beyond cases that satisfy the statutory requirements for diversion. Even in cases adjudicated through formal criminal proceedings, judges should be encouraged to incorporate restorative justice principles into sentencing and post-conviction measures. As argued by Zulfa, restorative justice is fundamentally a paradigm that prioritizes the restoration of social relationships rather than the mere imposition of punishment.³¹ Accordingly, judicial decisions should extend beyond custodial or punitive sanctions to include psychological rehabilitation, digital literacy education, mandatory removal of harmful online content, electronic apologies where appropriate, and community-based rehabilitation programs designed to facilitate children's reintegration into society.

The findings demonstrate that effective juvenile cybercrime law enforcement can be achieved only through comprehensive legal system reform. Such reform requires substantive harmonization of legislation, enhancement of institutional capacity, modernization of digital judicial infrastructure, strengthening of victim protection mechanisms, and the cultivation of a legal culture that is responsive to the realities of digital transformation. These reforms constitute essential prerequisites for developing a juvenile justice system capable of simultaneously ensuring legal certainty, substantive justice, and the effective protection of children's rights in cyberspace. The adaptive law enforcement model proposed in this study not only addresses current deficiencies in Indonesia's juvenile cyber justice system but also provides a strategic policy framework for responding to future developments in information and communication technology.

4. CONCLUSION

The Electronic Information and Transactions (EIT) Law, the Juvenile Criminal Justice System (JCJS) Law, and the Child Protection Law collectively constitute a complementary legal framework for addressing cybercrime involving children. However, their substantive harmonization remains incomplete, resulting in inconsistencies in the handling of juvenile cybercrime cases. Although the effectiveness of law enforcement may be considered generally satisfactory, as reflected in the consistent application of child protection principles in judicial reasoning, the implementation of diversion continues to be constrained by the statutory sentencing provisions of the EIT Law. Moreover, persistent normative, institutional, technical, and sociocultural barriers continue to undermine the overall effectiveness of Indonesia's juvenile criminal justice system.

This study underscores the need for comprehensive legal and institutional reforms, including greater regulatory harmonization, enhanced professional capacity among law enforcement personnel, modernization of digital judicial infrastructure, and

³¹ Eva Achjani Zulfa, "Keadilan Restoratif Di Indonesia: Studi Tentang Kemungkinan Penerapan Pendekatan Keadilan Restoratif Dalam Praktek Penegakan Hukum Pidana" (Universitas Indonesia, 2009), <https://lib.ui.ac.id/detail?id=20278559>.

the development of a child protection ecosystem supported by digital literacy initiatives. These findings contribute theoretically to the advancement of juvenile criminal law scholarship by demonstrating the importance of integrating cyber law with child protection principles within a coherent legal framework. From a practical perspective, the study offers policy recommendations for legislators and law enforcement agencies seeking to develop a juvenile justice system that is more adaptive to technological change and better equipped to address the evolving challenges of cybercrime.

This study is subject to certain limitations. Its empirical analysis is confined to cases adjudicated by the Surakarta District Court, and therefore the findings cannot be generalized to judicial practice throughout Indonesia. Future legal reforms should prioritize the harmonization of the EIT Law and the JCJS Law through integrated implementing regulations while further strengthening restorative justice mechanisms in juvenile cybercrime cases. In addition, future research should adopt a comparative multi-court design and incorporate broader empirical data from multiple jurisdictions to develop a more comprehensive and nationally representative model of juvenile cybercrime law enforcement in Indonesia.

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