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## Urgency Arrangement Accountability Criminal Corporations Over the Abuse of Artificial Intelligence in Cyber Crime in Indonesia

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### ABSTRACT

The development of Artificial Intelligence (AI) has create transformation big in life social, economic, and global digital systems. However, the use of AI also gives rise to risk abuse in various form action criminal cyber such as deepfakes, personal data theft, automated phishing, manipulation digital information, up to attack cyber based algorithm. Complexity AI technology raises challenge new in system law Indonesian criminal law, in particular related accountability criminal corporation as developers, owners, and organizer system electronic AI- based research This aim For analyze urgency arrangement accountability criminal corporation on misuse of AI in action criminal cyber in Indonesia. The research method used is juridical normative with approach legislation and approaches conceptual. Research results show that arrangement law in Indonesia is still nature partial and not yet in a way specific arrange accountability criminal corporation to action criminal AI- based. The gap in the norm potential cause uncertainty law in enforcement law cyber. Therefore that, is necessary reformulation policy law criminal through strengthening AI regulation, harmonization between the Criminal Code, the ITE Law, and the PDP Law, as well as implementation the principle of strict liability and vicarious liability against corporation. Research This confirm that comprehensive regulation is urgent for ensure certainty law, protection society and security room cyber national.

**Keywords:** artificial intelligence; accountability corporate crime; act cyber crime; cyber law; Indonesia.

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### Introduction

Development digital technology has push birth various innovation based on Artificial Intelligence (AI) which is capable of change pattern life modern society (Jin & Deng, 2024). AI does not Again only used in sector industry and business, but has

penetrate field security, health, education, to governance. AI capabilities in process data in a fast and do learning independent (*machine learning*) provides efficiency tall in various activity humans (Jobin et al., 2019). However, behind benefit In addition, AI also presents risk new in the form of abuse technology For do action criminal increasingly cyber complex and difficult detected (Dilek, Çakır, & Aydın, 2015).

Phenomenon action criminal cyber AI- based development in a way significant in a number of year lastly. AI technology is used for create *deepfake*, attack *phishing* automatic, electronic data manipulation, theft digital identity, dissemination hoax, until hacking system electronic scale big. Crime the no only carried out by individuals, but also can involving corporation as developer, provider services, as well as AI system operators. In condition certain corporations get profit economy from the AI system used without notice aspect security and protection law society (Wijanarko & Riyanto, 2021).

The development of AI gives rise to problem Serious in law criminal Because AI systems have semi-autonomous character even autonomous system the can produce action certain based on learning algorithm without instructions direct human ("Autonomous Weapons Systems Controlled by Artificial Intelligence: A Conceptual Roadmap for International Criminal Responsibility," 2022). Condition This cause difficulty in determine subject responsible law answer when AI is used For do action criminal cyber. In system law criminal classic, accountability criminal based on the principle error (*geen staff without schuld*) who wants existence element intentional or negligence humans. However, AI does not own moral awareness as man so that No can positioned as subject law criminal independent (Osman et al., 2025).

In Indonesia, the regulation regarding AI is still very limited and scattered in various regulations sectoral (Pratama et al., 2025). Law Number 1 of 2023 concerning the Criminal Code of course has confess corporation as subject action criminal, but Not yet arrange in a way specific about accountability criminal corporation on misuse of AI in action criminal cyber. Likewise the Law Electronic Information and Transactions (ITE Law) and Constitution Personal Data Protection (PDP Law) has not give clear formulation related attribution error corporation to AI actions (Tirtawati & Prijanto, 2023).

The emptiness of the norm cause occurrence uncertainty law in enforcement law cyber. Apparatus enforcer law often experience difficulty determine who should asked accountability when AI is used for facilitate action criminal. In in practice, corporations often take cover behind pretext that action done in a way automatically by the AI system so that no there is error man in a way directly. In fact, the corporation own control to design, supervision and operation AI system used (Amanda & Usman, 2026).

In a way theoretical, accountability criminal corporation can based on several doctrine like *identification theory*, *vicarious liability*, *strict liability*, and *corporate culture*

*model*. Doctrine *identification theory* put action administrator as representation will corporation. Meanwhile that is, *vicarious liability* allows corporation responsible answer on action the party under supervision. In AI context, doctrine the relevant implemented Because AI systems in essence is tools developed and controlled by corporations (Prakarsa et al., 2024).

Urgency arrangement accountability criminal corporation on AI abuse is increasing important remember height threat security Cyber in Indonesia. Digitalization service public and digital economy improves dependence public to system electronics. When AI is used in a way No responsible answer, the impact can threaten security national, stability economy and rights privacy society. In addition, the weakness regulations also have the potential utilized corporation For avoid not quite enough answer law on losses incurred by their AI systems operate (Tok & Chatpoothayak, 2022).

Study previously more Lots discuss accountability AI criminal from individual and basic perspectives error, whereas study about accountability criminal corporation in misuse of AI in Indonesia is still relatively limited. Research This own *novelty* in the form of analysis integrative between law criminal corporation, law cyber, and AI regulation in context action criminal cyber in Indonesia. Research this also emphasizes importance reformulation policy law criminal For face development AI technology is increasingly dynamic.

Based on description said, research This aim For analyze urgency arrangement accountability criminal corporation on abuse of Artificial Intelligence in action criminal cyber in Indonesia as well as formulate draft arrangement relevant laws in system law criminal national.

## Research Method

This research applies a normative juridical research design focusing on statutory interpretation and doctrinal legal analysis. The study uses a statute approach, conceptual approach, and limited comparative approach to examine the regulation of corporate criminal liability in AI-based cybercrime. Data collection was conducted through literature studies involving legislation, international legal instruments, scientific journals, books, and previous studies relevant to Artificial Intelligence, cybercrime, and corporate criminal law. Data processing and analysis were carried out qualitatively through descriptive-analytical methods to identify legal gaps, compare legal concepts, and formulate adaptive criminal law policies concerning AI governance in Indonesia (Creswell & Creswell, 2023; Sugiyono, 2020).

Study This use method study juridical normative with approach statute approach and legal approach conceptual approach. Approach legislation done through analysis to various related regulations with accountability criminal corporation, action criminal cyber, and the use of Artificial Intelligence in Indonesia, such as Constitution Number 1 of 2023 concerning the Criminal Code, Law Electronic Information and Transactions, and Constitution Personal Data Protection. Approach

conceptual used for analyze theories accountability criminal corporation in context development AI technology.

Legal materials used consists of on material primar, secondary, and tertiary law. Primary legal materials include regulation legislation and decisions relevant laws. Legal materials secondary in the form of journal scientific, books, articles law, and results study previously regarding AI and action criminal cyber. Meanwhile that, material law tertiary in the form of dictionary law and encyclopedia law.

Collection techniques material law done through studies literature with examine various source law in a way systematic. Data analysis was carried out in a way qualitative with use method descriptive-analytical For explain connection between AI development with urgency arrangement accountability criminal corporation in system law Indonesian criminal law.

## Results and Discussion

Comparative legal developments demonstrate that several jurisdictions, including the European Union through the Artificial Intelligence Act, have introduced risk-based AI governance models emphasizing transparency, accountability, and human oversight (Qin, 2023; Syibly et al., 2022; Xin & Symaniuk, 2021). These comparative developments strengthen the argument that Indonesia requires specific AI regulations to prevent legal uncertainty regarding corporate responsibility. In practice, several international cybercrime cases involving AI-generated deepfake fraud, automated phishing systems, and algorithmic manipulation illustrate how corporations may benefit economically from AI technologies while avoiding legal responsibility. Therefore, criminal law reform should integrate doctrinal theories of strict liability, vicarious liability, and corporate culture models to ensure effective enforcement against AI-based cybercrime.

### Artificial Intelligence Development and Transformation Cyber Crime

Artificial Intelligence (AI) has develop become technology main in global digital transformation. AI is used in various sector like finance, trade electronics, security cyber, health, education, to administration government. Technology This allows system do data analysis automatic, recognition pattern, taking decision based algorithms and learning independent through *machine learning* and *deep learning* (Jobin et al., 2019). Development the give efficiency big to activity human, but at a time bring up threat new in the form of abuse technology For action criminal cyber (Dilek et al., 2015; Selma Dilek et al., 2015).

Transformation action criminal cyber AI- based shows distant characteristics more complex compared to crime cyber conventional. Actor crime can leveraging AI for do attack automatic to network computers, generating adaptive malware, manipulating digital, up to create content false based *deepfake* (Tok & Chatpoothayak, 2022). AI also makes it possible perpetrator do attack cyber in scale big with cost low

and high levels anonymity high. Condition This cause apparatus enforcer law experience difficulty in identify perpetrator and mechanism crimes used (Osman et al., 2025).

The development of AI in crime cyber No can separated from increasing dependence public to system electronics. In Indonesia, digitalization economy through service digital finance, *e-commerce*, and services based *cloud* increasing the volume of electronic data circulating in space cyber. Increasingly large amount of data stored in digital system, then the more the potential is also great misuse of AI for do data theft, manipulation information, and attacks to national digital infrastructure (Amanda & Usman, 2026).

Besides being used For attack system electronics, AI is also used For do manipulation psychological to public through distribution information fake (*disinformation*). Technology *deepfake* allows perpetrator make a video or voice fake that resembles figure certain so that potential cause loss social, economic, even politics (S. Wijanarko et al., 2025). Misuse technology the show that AI is not Again only become tool help technology, but has develop become instrument strategic in modern digital crime.

In perspective digital criminolog, the use of AI in action criminal cyber show existence shift in the modus operandi of crime from conventional going to crime based automation system. Actor No Again need ability technical level tall in a way direct because AI can programmed For do action certain in a way independent. This is increase potential occurrence *cybercrime as a service*, where AI technology is bought and sold or for rent For do crime cyber (Dilek et al., 2015; Selma Dilek et al., 2015).

Phenomenon the show that AI development requires supervision more laws strict. The country does not only sued For arrange the use of AI in general, but also must build mechanism accountability clear laws to parties who obtain benefit economy from the use of AI, in particular corporation as technology developers and operators (Jobin et al., 2019).

### **Position Corporation as Subjects of Criminal Law**

Development modern crime drives change paradigm law previous criminal offenses only put man as subject law criminal. In development law contemporary, corporate has recognized as subject laws that can asked accountability criminal (Tirtawati & Prijanto, 2023). Confession the based on facts that various action modern criminal law often done through a business entity or organizations that have structure, policies, and interests economy certain.

In Indonesia, the regulation about accountability criminal corporation has experience development significant. The 2023 National Criminal Code in general explicit confess corporation as subject action criminal. In addition, various Constitution special such as the Criminal Procedure Code Criminal Corruption,

Environmental Law, Criminal Law Criminal Money Laundering, and the ITE Law also provides room For criminalization corporations (Prakarsa et al., 2024). However Thus, the arrangement the Not yet in a way specific arrange accountability criminal corporation in AI abuse.

In AI context, corporations own position central Because part big AI technology is developed, marketed, and operated by companies technology. Corporation No only act as provider system but also gain profit economy from utilization of AI. Therefore that, corporation should own not quite enough answer law to the impact caused by their AI systems manage (Amanda & Usman, 2026).

In a way theoretical, accountability criminal corporation can explained through a number of doctrine. First, *the identification theory* which considers action administrator as representation will corporation. In AI context, decisions development and use AI systems are part from policy corporation so that error administrator can attributed as error corporation (Prakarsa et al., 2024).

Second, *vicarious liability* which allows corporation responsible answer on action working parties for interests. Doctrine This relevant implemented when AI is used by employees or party certain in room scope operational corporation for do action criminal cyber (Tirtawati & Prijanto, 2023).

Third, *strict liability* allows corporation convicted without need proof element error in a way direct approach This important implemented in action criminal AI-based because complexity technology often make things difficult proof element intentional and negligence (Osman et al., 2025). With *strict liability*, corporation still can asked accountability if the AI system they operate cause loss for public.

Fourth, *the corporate culture model* that assesses accountability criminal corporation based on culture organization company. If the corporation No own standard digital security, surveillance algorithm, or policy adequate AI ethics, then condition the can considered as form negligence corporation (Prakarsa et al., 2024).

Implementation doctrines the show that corporation No can release not quite enough answer law with reason that action criminal done in a way automatically by AI. AI is basically still is at in control design, supervision, and operation corporation so that every the impact caused must become part from not quite enough answer law company (S. Wijanarko et al., 2025).

### **Emptiness Artificial Intelligence Regulation in Indonesia**

Indonesia until moment This Not yet own regulations special regarding Artificial Intelligence. Settings related to AI still spread in various regulations sectoral such as the ITE Law, the Personal Data Protection Law, and regulations about system electronics (Amanda & Usman, 2026). Conditions the cause arrangement about not quite enough answer law in the use of AI becomes No integrated and characteristic partial.

The ITE Law only arrange action criminal electronic in a way general without give definition and classification regarding AI. In fact, AI has different characteristics compared to system electronic normal Because capable do learning independent and taking decision automatic (Ramadhani, Hidayat, & Hosnah, 2026). The void of the norm cause difficulty in determine the limits of responsibility answer corporation when AI is used For do action criminal cyber.

In addition, the Personal Data Protection Act has not yet been enacted. arrange in a way specific about use of AI in processing of personal data. AI has ability collect, analyze, and predict behavior users based on internal digital data amount big. Without clear regulations, technology the potential used in a way arbitrary by corporations For interest business and violation of law law (Tok & Chatpoothayak, 2022).

Absence regulations special also causes Not yet existence standard national regarding algorithm audits, transparency AI systems, and surveillance against AI risks high. Corporation can develop AI system without obligation open mechanism Work the algorithm used. As a result, when happen action criminal cyber AI- based, apparatus enforcer law experience difficulty do proof to source error (Jobin et al., 2019).

From the perspective law criminal, vacancy AI regulation raises problem related attribution error. System law Indonesian criminal law is still error-oriented humans (*mens rea*), while AI works through the computing process algorithmic that is not always involving intervention man in a way directly (Bathae, 2018). Condition This cause draft accountability criminal traditional become not enough adequate in face development AI technology (Tirtawati & Prijanto, 2023).

Absence regulations also have the potential cause impunity corporation. The company can take cover behind reason that action done in a way automatically by AI without involvement humans. In fact, corporations own not quite enough answer to design, supervision, and implementation the technology they use (S. Wijanarko et al., 2025)

Due to that, is necessary formation regulations special about AI being able to arrange standard security, ethics, transparency, and accountability law in use AI technology in Indonesia (Jobin et al., 2019).

### **Analysis Urgency Accountability Criminal Corporation on AI Abuse**

Urgency arrangement accountability criminal corporation on AI abuse is based on several fundamental reasons. First, the development of AI has increase scale and complexity action criminal cyber so that need approach law new adaptive to digital technology (Dilek et al., 2015; Fuadi et al., 2024).

Second, corporations is actor main in development and distribution AI technology. As the party who acquires profit economy, corporation must responsible

answer to risk social and legal issues arising from the use of AI. Without accountability clear laws, corporations tend ignore aspect security for efficiency and profit business (Amanda & Usman, 2026)

Third, the settings accountability criminal corporation important For give effect deterrent and encouraging company apply principle due diligence. With existence threat criminal, corporate will pushed increase standard security AI systems, conducting algorithm audits, and apply more internal oversight strict (Prakarsa et al., 2024). Fourth, the settings the required For protect right public in digital space. Misuse of AI can cause loss big like personal data theft, manipulation information, up to disturbance to stability digital economy. The country has obligation constitutional For give protection law to public from threat digital crime (Tok & Chatpoothayak, 2022).

Fifth, the settings accountability criminal corporation important For guard security national. National digital infrastructure like system banking, services public and communication electronic the more relies on AI technology. If AI is misused For attack infrastructure strategic, its impact can bother state stability (Wijanarko, Ekaningsih, & Farida, 2026).

From the perspective policy law criminal policy, regulation accountability criminal corporation is part from effort modernization law criminal national. Criminal law No can Again only oriented towards individual actors, but must capable reach crime corporation based technology (Tirtawati & Prijanto, 2023).

### **Reformulation Criminal Law Policy to AI Abuse**

Reformulation policy law criminal to misuse of AI is necessary done through approach legislative, institutional, and enforcement law. From the aspect legislation, government need form regulations special about AI that regulates AI classification, standards security system, transparency algorithms, and accountability law corporation (Cath, 2018; Jobin et al., 2019; Winfield & Jirotko, 2018)

Regulation the must arrange obligation corporation For conduct AI security audits periodic. Audit is required For ensure that AI systems do not own potential endanger public and used For action criminal cyber. In addition, companies must also required apply principle *ethical AI* in development technology (Tok & Chattopadhyay, 2022).

In context accountability criminal, application principle *strict liability* need considered to corporations operating AI are at risk high. Approach This can make things easier proof in case action criminal cyber AI- based because apparatus enforcer law No must prove element error in a way directly (Ramadhani, Hidayat, & Hosnah , 2026).

In addition to *strict liability*, the implementation of sanctions administrative and civil matters are also important as form approach multidimensional in enforcement

AI law. Proven corporations negligent can charged revocation permission business, restrictions operational AI systems, up to obligation pay compensation to the victim.

From the aspect institutional, government need form institution national AI supervisor who has authority do certification, audit and supervision to the use of AI in Indonesia. The institution can also functioning as center coordination handling crime cyber AI- based.

Strengthening capacity apparatus enforcer law also becomes matter important. Police, prosecutors, and judges need to own understanding about AI technology and digital forensics to be able to handle case action criminal cyber AI - based effective (Dilek et al., 2015).

Harmonization regulations between the Criminal Code, the ITE Law, the PDP Law, and AI regulations are also needed to create synchronization system law national. Without harmonization, enforcement law to misuse of AI will still face overlapping overlapping norms and uncertainty law (Tirtawati & Prijanto, 2023).

With reformulation policy law comprehensive criminal law, Indonesia can build system adaptive law to development technology at a time capable give optimal protection against public from threat abuse of Artificial Intelligence in action criminal cyber.

## Conclusion

This study confirms that the absence of comprehensive AI regulation in Indonesia has created significant legal uncertainty regarding corporate criminal liability for AI-based cybercrime. Existing laws remain fragmented and insufficient to address issues of algorithmic accountability, autonomous decision-making, and cybercrime facilitated by AI systems. The study contributes theoretically by strengthening the discourse on corporate criminal responsibility in the digital era and by integrating cyber law perspectives with contemporary criminal law doctrines. Nevertheless, this study is limited to normative legal analysis and does not include empirical investigation regarding institutional readiness or practical enforcement challenges. Future research is recommended to examine empirical implementation of AI governance, comparative cybercrime enforcement practices, and institutional preparedness in Indonesia. The development of Artificial Intelligence (AI) has bring change big in digital systems and activities modern society, including in pattern crime increasingly cyber complex, automatic, and difficult detected. The use of AI in action criminal cyber like *deepfake*, personal data theft, manipulation digital information, attacks automatic to system electronics, as well as distribution disinformation show that AI technology can become instrument crimes that have impact wide to security national, stability economy and protection right society in the digital space. Conditions the show that development technology no only produce benefits but also causes challenge Serious for system law criminal law in Indonesia.

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