



## Illegal Streaming Sites: Legal Analysis and Challenges in the Digital Era

Anggo Doyoharjo<sup>1\*</sup>, FX. Hastowo Broto Laksito<sup>2</sup>

<sup>1,2</sup>Faculty of Law, Universitas Slamet Riyadi, Indonesia

\*Corresponding Author: [dodot.anggo@gmail.com](mailto:dodot.anggo@gmail.com)<sup>1</sup>

**Abstract.** *Illegal streaming sites are one of the forms of copyright infringement that are rampant in the digital era and have a significant impact on the creative industry, the economy, and law enforcement. This research analyzes the Indonesian legal framework consisting of Law No. 28 of 2014 on Copyright, Law No. 11 of 2008 jo. Law No. 19 of 2016 on Electronic Information and Transactions, as well as the technical regulations of the Ministry of Communication and Information (Kominfo) in addressing these violations. The findings indicate that although the legal framework is in place, enforcement still faces technical, legal, social, and complex cross-border challenges. These sites often utilize foreign servers, mirror domains, and anti-blocking technology to evade blocking, thus requiring international cooperation thru mechanisms such as Mutual Legal Assistance (MLA) and coordination with the World Intellectual Property Organization (WIPO). An effective counter-strategy must be multidimensional, encompassing regulatory strengthening, the use of detection technologies such as digital watermarking and content ID systems, as well as public education to curb the demand for illegal content. A comparison with the United States, Japan, and South Korea shows that proactive enforcement, a quick notice-and-takedown mechanism, and industry cooperation have proven effective in reducing violations. In conclusion, the eradication of illegal streaming sites in Indonesia requires continuous synergy between the government, industry, and society to protect copyright and the sustainability of the creative industry ecosystem in the digital era.*

**Keywords:** *Copyright; Illegal Streaming Sites; International Cooperation; ITE Law; Law Enforcement.*

**Abstrak.** Situs streaming ilegal adalah salah satu bentuk pelanggaran hak cipta yang marak di era digital dan berdampak signifikan pada industri kreatif, ekonomi, dan penegakan hukum. Penelitian ini menganalisis kerangka hukum Indonesia yang terdiri dari Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta, Undang-Undang Nomor 11 Tahun 2008 jo. Undang-Undang Nomor 19 Tahun 2016 tentang Informasi dan Transaksi Elektronik, serta peraturan teknis Kementerian Komunikasi dan Informatika (Kominfo) dalam menangani pelanggaran-pelanggaran tersebut. Temuan menunjukkan bahwa meskipun kerangka hukum sudah ada, penegakannya masih menghadapi tantangan teknis, hukum, sosial, dan lintas batas yang kompleks. Situs-situs ini sering menggunakan server asing, domain cermin, dan teknologi anti-pemblokiran untuk menghindari pemblokiran, sehingga memerlukan kerja sama internasional melalui mekanisme seperti Bantuan Hukum Timbal Balik (MLA) dan koordinasi dengan Organisasi Kekayaan Intelektual Dunia (WIPO). Strategi balasan yang efektif harus bersifat multidimensi, mencakup penguatan regulasi, penggunaan teknologi deteksi seperti digital watermarking dan sistem ID konten, serta edukasi publik untuk menekan permintaan konten ilegal. Perbandingan dengan Amerika Serikat, Jepang, dan Korea Selatan menunjukkan bahwa penegakan proaktif, mekanisme pemberitahuan dan penghapusan yang cepat, serta kerja sama industri terbukti efektif dalam mengurangi pelanggaran. Sebagai kesimpulan, pemberantasan situs streaming ilegal di Indonesia membutuhkan sinergi berkelanjutan antara pemerintah, industri, dan masyarakat untuk melindungi hak cipta dan keberlanjutan ekosistem industri kreatif di era digital.

**Kata kunci:** Hak Cipta; ITE Hukum; Kerja Sama Internasional; Penegakan Hukum; Situs Streaming Ilegal.

## **1. INTRODUCTION**

The development of information and communication technology has brought significant changes in the way society accesses and enjoys entertainment content. The transformation from conventional media such as television and cinemas to online streaming platforms provides extraordinary access. (Papa, 2015) However, on the other hand, this technological advancement has also given rise to a negative phenomenon, namely the proliferation of illegal streaming sites that present films, television series, music, and other creative works without permission from the copyright holders. This phenomenon is not only happening in Indonesia but has also become a global issue that threatens the sustainability of the creative industry.

Illegal streaming sites exploit internet infrastructure to widely distribute creative works without going thru legitimate licensing mechanisms. Models of operation like this often exploit legal loopholes and the limitations of cross-jurisdiction law enforcement, allowing perpetrators to operate relatively safely. By utilizing overseas hosting technology and easily replaceable domains, these sites are difficult to eradicate permanently. As a result, the economic losses incurred are becoming more widespread over time. (Gordon, 2004) The losses caused by illegal streaming sites are not only felt by copyright holders but also by the state and consumers. Copyright holders lose potential revenue that should have been obtained thru official licensing and distribution. The country is harmed because it loses tax revenue from legal transactions that are replaced by illegal access. (Lu, 2018) Meanwhile, consumers, although obtaining free or cheap access, are at risk of being exposed to harmful ads, malware, and low service quality.

From a legal perspective, illegal streaming sites clearly violate the provisions of Law Number 28 of 2014 on Copyright, which grants exclusive rights to creators or copyright holders to announce and reproduce their works. In addition, this practice can also be classified as a violation of Law Number 11 of 2008 on Electronic Information and Transactions (ITE Law), particularly related to the distribution of illegal content thru electronic media. The combination of these two laws serves as the main framework for law enforcement against copyright violations in the digital realm. Although regulations are in place, law enforcement against illegal streaming sites in Indonesia still faces various challenges. The biggest obstacle is the transnational nature of the violations, which requires international coordination to shut down servers or take action against the perpetrators. (Yuspin et al., 2019) In addition, these sites often reappear with different domains (mirror sites) even after being blocked, making the blocking efforts feel like an endless "cat and mouse game".

Another obstacle lies in the low legal awareness of the public. Most users are unaware that accessing content thru illegal streaming sites constitutes a violation of copyright. The deeply rooted culture of free content in the digital world makes educational efforts as important as law enforcement. Without a change in consumer behavior, the demand for illegal content will remain high, making it difficult to eradicate the ecosystem of illegal streaming sites (Aliprandi & Mangiatordi, 2013).

Based on that background, it is important to examine illegal streaming sites from a legal perspective comprehensively. This analysis covers legal aspects, law enforcement challenges, and solutions that can be taken thru regulatory approaches, technology, and international cooperation. With a deep understanding, it is hoped that effective strategies can be formulated to combat copyright infringement in the digital era, while also protecting the creative industry and the rights of creators.

## **2. RESEARCH METHODOLOGY**

This research uses the normative legal research method because its focus is to examine the applicable and relevant legal norms regarding the phenomenon of illegal streaming sites in Indonesia. (Christianto, 2017) The approaches used include the statute approach, the conceptual approach, and the comparative approach. The legislative approach is used to examine the provisions in Law No. 28 of 2014 on Copyright, Law No. 11 of 2008 jo. Law No. 19 of 2016 on ITE, Minister of Communication and Information Regulation No. 5 of 2020, as well as international agreements such as the TRIPS Agreement and the provisions of the World Intellectual Property Organization (WIPO). The conceptual approach is applied to explain the definition, characteristics, and implications of illegal streaming sites on copyright and the creative industry. The comparative legal approach is used to analyze countermeasures in other countries, such as the United States, Japan, and South Korea. Data were obtained thru a literature study that included primary, secondary, and tertiary legal materials. Data analysis was conducted qualitatively by interpreting legislation and comparing national and international law enforcement practices. The research results are presented descriptively-analytically to provide a comprehensive overview and strategic recommendations for combating illegal streaming sites in Indonesia.

### **3. RESULT AND DISCUSSION**

#### **Legal Framework and Enforcement in Indonesia**

The national legal framework for regulating and taking action against illegal streaming sites in Indonesia is based on several key legal instruments. The most fundamental aspect is Law Number 28 of 2014 on Copyright, which serves as the legal umbrella for copyright protection in Indonesia. (Antons, 2008) Article 9 paragraph (1) letter b of the Copyright Law emphasizes that the creator or copyright holder has the exclusive right to announce their creation, including thru electronic media. Violations of this exclusive right constitute a legal infringement that can be subject to criminal penalties as stipulated in Article 113 paragraph (4), with a maximum prison sentence of 4 (four) years and/or a fine of up to Rp1,000,000,000.00 (one billion rupiah). Furthermore, Article 95 of the Copyright Law opens the opportunity for civil lawsuits to seek compensation, so that rights holders do not solely rely on criminal sanctions.

In addition to the Copyright Law, Law Number 11 of 2008 concerning Electronic Information and Transactions (ITE Law), which was amended by Law No. 19 of 2016, has become an important instrument in expanding copyright protection into the digital realm. Article 27 paragraph (2) of the ITE Law prohibits the distribution or transmission of content that contains copyright infringement thru electronic systems. Article 32 regulates the prohibition of illegal access, while Article 33 regulates the prohibition of hacking or manipulation of electronic systems. Both provisions are relevant to the modus operandi used by illegal streaming sites, which often manipulate the system to present pirated content. (Hua, 2014).

From an administrative policy perspective, the Ministry of Communication and Informatics (Kominfo) has the authority to block access (site blocking) to websites that contain illegal content. This authority is regulated under Ministerial Regulation No. 5 of 2020 concerning Private Electronic System Operators, which establishes procedures for content takedown or blocking access to electronic systems that violate the law. This mechanism is usually carried out based on reports from copyright holders, results from internal cyber patrols, or coordination with law enforcement agencies. (Ash Shiddiq et al., 2019) In practice, Kominfo utilizes Trust+ Positif and AIS Kominfo as the database for blocked sites.

Although the legal framework is available, enforcement on the ground faces significant challenges. One of the main obstacles is the cross-border nature of this crime (cross-border infringement). Many illegal streaming sites use servers hosted outside Indonesia's jurisdiction, take advantage of international cloud hosting services, or utilize Content Delivery Networks (CDN) to obscure the server's location. This makes the enforcement process require formal international cooperation, such as thru Mutual Legal Assistance (MLA) or bilateral agreements.

In addition, site operators often use mirror domains, reverse proxies, and anti-blocking technologies to avoid access disruption. As a result, even if a site is blocked, a copy or new version of that site can reappear within hours or days. This cycle creates a "cat and mouse game" between law enforcement and perpetrators, making enforcement efforts reactive and temporary.

Another constraint comes from the technical aspects of proving the case. In the context of criminal law, proving digital copyright infringement requires cyber forensic expertise to identify pirated files, their origins, and their connection to the defendant. Not all law enforcement officers in Indonesia possess the technical skills and adequate resources to conduct in-depth digital tracking, especially in rural areas (Manullang, 2022).

From a social perspective, the low legal awareness of the community has become a major issue. A survey by the Indonesian Internet Service Providers Association (APJII) shows that the majority of internet users in Indonesia do not consider watching from illegal sites as a legal violation. The deeply rooted culture of free content in cyberspace makes people prefer free access, even if it is illegal. (Luthfia & Triputra, 2020) This low level of digital literacy keeps the demand for illegal content high, causing illegal streaming sites to continue emerging to meet that market.

As an illustration, in 2022, Kominfo blocked more than 9,000 sites and applications that were proven to violate copyright, including well-known sites like IndoXXI, LK21, and Ganool. However, almost all of these sites reappeared in the form of new domains or alternative platforms in a short time. This fact shows that although Indonesia already has regulations and blocking mechanisms, their effectiveness is still limited if not complemented by proactive law enforcement, international cooperation, and massive public education strategies (Setianto, 2015).

With this condition, it is clear that the existence of the Copyright Law, the ITE Law, and administrative regulations is not enough to completely eradicate illegal streaming sites. Integration between national legal instruments, technological support, and public awareness is needed so that enforcement efforts can be preventive and sustainable, not just reactive.

## **Cross-Border Challenges and Mitigation Strategies**

The cross-border nature of illegal streaming sites makes them one of the most difficult forms of copyright infringement to eradicate by solely relying on national law enforcement. These sites are often operated from countries with lax regulations or weak enforcement of digital copyright violations. Many operators take advantage of foreign servers, foreign domain registrars, and cloud hosting services with strict privacy policies, making it difficult to trace the identities of the perpetrators. Additionally, technologies such as Content Delivery Network (CDN) and reverse proxy allow content to be distributed from various locations simultaneously, making the process of tracing the original source very complex (Riis & Schovsbo, 2016).

The legal constraints that pose an obstacle are the limitations of jurisdiction, which prevent law enforcement agencies in Indonesia from directly taking action against servers or domains located abroad without going through international legal procedures. The Mutual Legal Assistance (MLA) mechanism often takes a long time, while the perpetrator can move the server or change the domain within hours. Moreover, not all countries have the same commitment to copyright protection, so international cooperation under the auspices of the World Intellectual Property Organization (WIPO) or multilateral agreements such as the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) needs to be strengthened with more operational bilateral agreements (Samahon, 2000).

Technical challenges arise because illegal streaming sites are highly adaptive to blocking. Once a domain is blocked, the perpetrators can create a mirror site with a new domain or use domain hopping to switch between domain names. They also utilize anti-blocking technology that employs Virtual Private Network (VPN) networks or peer-to-peer streaming, allowing users to maintain access even if the main domain has been blocked. This "cat-and-mouse game" strategy drains the resources of law enforcement and regulatory authorities (Demeyer et al., 2012).

Social and cultural challenges also exacerbate the problem. The low legal awareness of the community keeps the demand for illegal content high. Many users consider watching from illegal sites to be a practical and cheap option, without understanding the legal impact on the creative industry. The culture of free content in the digital world reinforces the ecosystem of copyright infringement. This shows that law enforcement without public education will not be effective, because the market for illegal content will remain alive as long as there is demand.

To address these obstacles, the mitigation strategy must be multidimensional. From the regulatory side, there is a need to strengthen legal norms by incorporating a fast and measurable notice-and-takedown mechanism. This mechanism allows copyright holders to submit requests for the removal of illegal content to platforms or internet service providers (ISPs) within a short period, as has been implemented in the United States thru the Digital Millenium Copyright Act (DMCA). In Indonesia, this provision can be integrated with the Copyright Law and the ITE Law to ensure more effective legal enforcement (Berisha, 2019).

From a technological standpoint, the government and industry can utilize digital watermarking to mark original content, making it easy to identify when it is distributed illegally. In addition, a content ID system that utilizes artificial intelligence can be used to automatically scan and remove pirated content on online platforms. Collaboration with cloud hosting service providers and domain registrars is also important to expedite the process of removing or shutting down access to infringing servers and domains. From the perspective of public education, a massive campaign is needed to change consumer behavior. This education can utilize social media, legal streaming platforms, and educational institutions to explain that accessing illegal content is the same as stealing the creator's rights. The government can collaborate with creative industry players to provide alternative legal streaming services at more affordable prices, thereby reducing the public's dependence on illegal sites (Kamau & K, 2014).

The synergy between the government, industry, and society is the key. The government is responsible for providing a strict legal framework and adequate oversight infrastructure. The creative industry and technology platforms play an active role in monitoring and removing illegal content. The public, as consumers, are expected to increase legal awareness and switch to legal services. With the integration of these three elements, the rate of copyright infringement in the digital era can be significantly reduced, and the sustainability of the creative industry can be ensured.

### **Comparison of Illegal Streaming Site Mitigation Practices in Indonesia and Other Countries**

The handling of illegal streaming sites in Indonesia currently still relies on a combination of law enforcement thru the Copyright Law (Law No. 28 of 2014) and the ITE Law (Law No. 11 of 2008 jo. Law No. 19 of 2016), along with administrative steps in the form of domain blocking by the Ministry of Communication and Information (Kominfo). Blocking is usually carried out based on complaints from copyright holders or internal cyber patrols by Kominfo.

However, the nature of this blocking is still reactive: sites are blocked after being detected, while site operators can quickly create new domains (mirror sites) or utilize reverse proxy technology to keep the content accessible. Criminal law enforcement against site operators is also still limited, partly due to the challenge of identifying perpetrators who often reside abroad. (Waisnawa, 2018)

Unlike Indonesia, the United States has the Digital Millennium Copyright Act (DMCA) of 1998, which serves as a global reference in the protection of digital copyrights. The DMCA not only regulates sanctions for violators but also establishes a very rapid notice-and-takedown mechanism. Copyright holders can submit an official notice to internet service providers (ISPs) or online platforms to remove pirated content. ISPs that do not follow up may lose legal protection (safe harbor) and become legally liable. The US also has close cooperation between federal law enforcement and the industry, such as the Motion Picture Association (MPA), which actively tracks and reports piracy sites. (McCall, 2003)

Japan implements a system that even targets end users, not just site operators. Since the revision of the Japanese Copyright Act in 2020, knowingly downloading or watching pirated content can be punishable, with a threat of up to 2 years in prison or fines. The Japanese government collaborates with the Content Overseas Distribution Association (CODA) to monitor global piracy, including shutting down foreign sites targeting the Japanese market. They also utilize hash filtering technology to automatically detect and remove pirated files. (Mehra, 2004)

South Korea is known for its proactive enforcement approach. Through the Korea Copyright Commission (KCC), the government monitors and removes illegal content in real-time, collaborating with local and global platforms. The KCC has the authority to order ISPs to block access within hours, not days or weeks. South Korea also regulates shared responsibility between platforms, ISPs, and copyright holders to address violations. This approach has proven effective in reducing piracy rates in the K-Pop and Korean drama industries, although cross-border challenges remain. (Choi, 2013)

From that comparison, a fundamental difference is evident where Indonesia still relies on domain blocking and law enforcement after the violation occurs (reactive) with technological and jurisdictional constraints. The United States has prioritized a rapid legal mechanism (notice-and-takedown) and systematically involved industry cooperation. Meanwhile, Japan not only penalizes the perpetrators but also deters end users and employs advanced filtering technology. South Korea itself implements proactive enforcement based on real-time monitoring, allowing for responses within hours.

The models of the United States, Japan, and South Korea show that the success of combating illegal streaming sites is not only determined by the existence of regulations but also by the speed of response, integration of detection technology, cross-sector cooperation, and political will to enforce the law impartially. Indonesia can modify this model, for example, by establishing a special agency like the KCC in South Korea or strengthening the notice-and-takedown obligation like in the United States, while expanding international cooperation to shut down servers and domains operated from abroad.

#### 4. CONCLUSION

The phenomenon of illegal streaming sites in Indonesia poses a serious challenge to copyright protection and the sustainability of the creative industry. Although the Copyright Law, the ITE Law, and Kominfo regulations have provided a clear legal basis, enforcement is still hindered by technical, juridical, social, and cross-border factors. The cross-border nature of these sites makes their handling require effective international cooperation thru mechanisms such as Mutual Legal Assistance (MLA) and coordination with the World Intellectual Property Organization (WIPO). The eradication strategy must include a combination of regulatory reinforcement, the use of advanced detection technology, and public education to change consumer behavior. Lessons from the United States, Japan, and South Korea show that proactive enforcement, rapid content removal mechanisms, and industry cooperation can significantly reduce violation rates. Indonesia can adapt that model to create a more efficient and sustainable enforcement system. With the synergy between the government, industry, and society, copyright protection in the digital era can be realized optimally.

#### REFERENCES

- Aliprandi, S., & Mangiatordi, A. (2013). Content production and perception of copyright: an analysis of habits and beliefs of internet users. *European Journal of Law and Technology*.
- Antons, C. (2008). *Copyright law reform and the information society in Indonesia*.
- Ash Shiddiq, F. P., Rosadi, S. D., & Permata, R. R. (2019). *The effectiveness of the minister of communication and informatics regulation number 20 of 2016 on the protection of personal data in electronic systems*.  
<https://doi.org/10.20961/YUSTISIA.V0IXX.28346>
- Berisha, B. (2019). Platforms Regulation in the Digital Single Market Strategy-Illegal Content and Intellectual Property as a Key Challenge. *European Research Studies Journal*.  
<https://doi.org/10.35808/ERSJ/1417>
- Choi, E.-K. (2013). *Digitalising Korea : transformations and tensions : the case of audiovisual service trade and intellectual property rights*.

- Christianto, H. (2017). *Ajaran sifat melawan hukum materiil sebagai upaya harmonisasi ketentuan hukum pidana pornografi melalui internet*. <https://doi.org/10.15294/IJCLS.V2I1.10813>
- Demeyer, K., Lievens, E., & Dumortier, J. (2012). Blocking and Removing Illegal Child Sexual Content: Analysis from a Technical and Legal Perspective. *Policy & Internet*. <https://doi.org/10.1002/POI3.8>
- Gordon, J. (2004). Illegal Internet Networks in the Developing World. *Social Science Research Network*. <https://doi.org/10.2139/SSRN.510323>
- Hua, J. J. (2014). *Copyright Law Changes and Developments in Digital Network Era*. [https://doi.org/10.1007/978-3-662-43517-5\\_1](https://doi.org/10.1007/978-3-662-43517-5_1)
- Kamau, G. M., & K, C. W. (2014). Digital Rights Management: Improving Online Digital Images Copy Rights Management through an Enhanced Least Significant Bit Steganographic Algorithm. *Computer Engineering and Intelligent Systems*.
- Lu, T. Y. (2018). Understanding Streaming and Copyright: A Comparison of the United States and European Regimes. *Journal of Business and Technology Law*.
- Luthfia, A., & Triputra, P. (2020). The Impact of Internet Motive and Access on the Opportunities and Risks of Teenager Internet Users in Indonesia. *Solid State Technology*.
- Manullang, S. O. (2022). The Legality of Devious Cyber Practices: Readiness of Indonesia's Cyber Laws. *Society*. <https://doi.org/10.33019/society.v10i2.482>
- McCall, A. E. (2003). The DMCA and Researchers' First Amendment Rights. *Pittsburgh Journal of Technology Law & Policy*. <https://doi.org/10.5195/TLP.2003.7>
- Mehra, S. K. (2004). Software as Crime: Japan, the United States and Contributory Copyright Infringement. *Social Science Research Network*. <https://doi.org/10.2139/SSRN.600622>
- Papa, R. (2015). The Information and Communication Revolution: Impact on Society. *Mediterranean Journal of Social Sciences*, 6(5), 282. <https://doi.org/10.5901/MJSS.2015.V6N5S1P282>
- Riis, T., & Schovsbo, J. (2016). The Borderless Online User – Carving Up the Market for Online and Streaming Services. *Social Science Research Network*. <https://doi.org/10.2139/SSRN.2867353>
- Samahon, T. N. (2000). TRIPS Copyright Dispute Settlement after the Transition and Moratorium: Nonviolation and Situation Complaints against Developing Countries. *Law and Policy in International Business*.
- Setianto, Y. P. (2015). Media policy in the context of global media flows, the internet, and piracy: an historical analysis of media regulation in Indonesia. *Jurnal Komunikasi: Malaysian Journal of Communication*. <https://doi.org/10.17576/JKMJC-2015-3102-21>
- Waisnawa, G. A. (2018). *Kebijakan formatif pengaturan cyberbullying sebagai salah satu bentuk tindak pidana cybercrime di indonesia*. <https://doi.org/10.24843/JMHU.2017.V06.I04.P03>
- Yuspin, W., Fauzie, A., & Hermawan, D. (2019). The Trajectories of Creative Content Protecting Law in Indonesia: Dealing with the Challenge and Advancing the Potential. *Jurnal Komunikasi: Malaysian Journal of Communication*. <https://doi.org/10.17576/JKMJC-2019-3502-22>