



## Examining Copyright Protection for Open Source Software: Legal Implications in Indonesia

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**Abstract:** The development of information technology in Indonesia has increasingly driven the use of Open Source Software (OSS), which enables open collaboration among developers worldwide. However, the implementation of copyright protection for OSS in Indonesia faces challenges, as the basic principle of copyright, which grants exclusive rights to creators, contradicts the spirit of sharing that lies at the core of OSS. This article aims to analyze the challenges faced in implementing copyright for OSS in Indonesia and explore how the adaptation of copyright regulations can support OSS development. This research employs a descriptive qualitative approach with document analysis and interviews as data collection methods. Data sources are derived from relevant legal literature on copyright, OSS licenses, and interviews with software developers and legal experts in Indonesia. The findings indicate that the mismatch between the exclusive nature of copyright principles and the collaborative spirit of OSS is the main challenge in legal regulation. Moreover, limited understanding of OSS licenses among software developers in Indonesia exacerbates the potential for copyright violations. Therefore, this study recommends the need for updates to the Copyright Law to better support the concept of open licensing and to provide better education for developers regarding the legal implications of using OSS. Strengthening the monitoring system is also necessary to ensure that OSS developers in Indonesia can continue to innovate safely while respecting copyright.

**Keywords:** Copyright; Open Source Software; Open License; Regulation; Indonesia.

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## 1. Introduction

The rapid development of information and communication technology (ICT) in this digital era has had a significant impact on various sectors of human life. One of the elements that has undergone a major transformation is the world of software. In recent years, the concept of Open Source Software (OSS) has become a global phenomenon that not only impacts the software industry itself but also the way we understand copyright in a legal context. OSS refers to software whose source code can be accessed, modified, distributed, and used freely by anyone, without any restrictions or royalty payments. Its use enables open collaboration between developers, allowing for faster and more innovative software development. This is clearly different from the proprietary software model, which tends to be locked and can only be used under the terms set by the license holder.<sup>1</sup>

It is important to note that although OSS offers the freedom to access and modify its source code, this raises questions about the legal status and copyright protection for such software in Indonesia. According to Law No. 28 of 2014 on Copyright, copyright is an exclusive right granted to the creator or copyright holder of a work, which includes the right to control the use, reproduction, and distribution of the work.<sup>2</sup> Therefore, copyright becomes an essential instrument for protecting creative works. However, in the case of OSS, where the software's source code can be altered, copied, and distributed without any fees or specific restrictions, a profound question arises: How can copyright be applied to OSS, which is explicitly released under an open license allowing users to modify it without violating the creator's copyright? How does Indonesia respond to this phenomenon from the perspective of existing copyright law?

This OSS phenomenon clearly creates a tension between the basic principles of copyright, which promote the protection of the creator's economic rights, and the open collaboration spirit at the core of OSS. In many cases, OSS developers release their software under licenses that allow users to access and modify its source code without the obligation to pay royalties to the original creator. Some well-known licenses, such as the GNU General Public License (GPL) or the Apache License 2.0, even require that any distribution or modification of the source code remains open, ensuring that derivative works of the software remain accessible and usable by anyone. However, on the other hand, this conflicts with the traditional understanding of copyright, which requires the copyright holder to benefit economically from their creation, such as the exclusive right to sell or distribute the product.<sup>3</sup>

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<sup>1</sup> Aftian, "Usaha Efisiensi Keuangan Dan Pernerapan Etika Bisnis Islam Dalam Implementasi Open Source Software Di Pt. Bimasakti Karyaprima Tangerang Banten."

<sup>2</sup> Ariyanto and Rachmadiarti, "Peningkatan Kemampuan Analisis Statistik Menggunakan Aplikasi R Studio Berbasis Open Source Untuk Kebutuhan Penelitian Dosen Di Fakultas Mipa Universitas Negeri Surabaya."

<sup>3</sup> Cipta, "Hak Cipta Dalam Digitalisasi Koleksi Perpustakaan."

The protection of OSS under Indonesian law does not only depend on the existing legislation but also on the evolving understanding and interpretation of the law. Although OSS offers flexibility in software development, this does not mean that these works are entirely unprotected. In fact, OSS is still protected under copyright law, but with differences in how copyright is applied. When software is released under an open license, developers or creators still retain copyright over their work, even though they provide greater freedom for users to modify or distribute it. This concept opens up further discussions on how open licenses can strike a balance between copyright and user rights.<sup>4</sup>

Copyright protection for OSS in Indonesia is still relatively new and faces several challenges. One major issue is how to ensure that the principle of open collaboration, which is the foundation of OSS, is not disrupted by rigid or inappropriate legal provisions that do not align with the spirit of open distribution. On the other hand, it is important to recognize that copyright is still needed to protect the rights of creators and software developers from piracy or misuse of their works by irresponsible parties. Therefore, a more flexible and dynamic approach is required in implementing copyright protection for OSS, one that not only protects the economic rights of creators but also supports the collaborative and innovative spirit that defines OSS.<sup>5</sup>

Additionally, Indonesia faces challenges related to a lack of in-depth understanding of open source software licenses and their application within the context of Indonesian law. Many developers and companies in Indonesia have not fully understood the legal implications of using OSS, whether in terms of distribution, modification, or using the source code. One common issue is the lack of understanding of the obligations that arise when OSS is used in commercial projects or derivative software from OSS that is subsequently distributed as closed source. Many developers or users of OSS are unaware that OSS licenses like the GPL require that software developed based on OSS must also be released as open-source software. This poses legal risks if not properly applied.

In this regard, the Indonesian government needs to be more proactive in socializing the concepts of OSS and copyright to the broader public, especially to developers and companies using OSS in their projects. Additionally, clearer and more structured public policies related to OSS are needed to provide proper guidelines for developers to protect their works without stifling the spirit of collaboration that exists. On the other hand, proper regulations regarding software licenses are also important to avoid

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<sup>4</sup> Demmalluru, "Studi Komparatif Limitasi Perlindungan Hak Cipta Pada Elemen-Elemen Penyusun Perangkat Lunak= Comparative Study of Limitation Copyright Protection on the Software Component."

<sup>5</sup> Fadiya, "Pengaruh Motivasi Penggunaan Software Bajakan Terhadap Pengetahuan Software Open Source Dikalangan Tenaga Pendidik UIN Ar-Raniry."

legal conflicts between creators, users, and other parties involved in the distribution and development of OSS.<sup>6</sup>

Based on the developments above, this article aims to examine copyright protection for OSS from the perspective of Indonesian law. By reviewing the existing regulations and the legal implications of applying OSS licenses, this article hopes to provide a clear understanding of the challenges and solutions that can be presented in managing copyright protection in the world of OSS. This research will also look at how existing copyright regulations can be adapted to accommodate the specific needs in OSS development, and how Indonesia can maintain a balance between copyright protection and the freedom to innovate in an increasingly open global context.<sup>7</sup>

Overall, this article will discuss several important aspects related to OSS, including the basic principles of OSS, the legal challenges faced by OSS in terms of copyright, and the regulations in Indonesia related to OSS. With a deeper approach to copyright law and OSS, it is hoped that solutions can be found to address this phenomenon, allowing OSS to continue to grow without neglecting copyright protection and the economic benefits for software creators. This will certainly contribute to the development of a healthier and more sustainable technology ecosystem in Indonesia.

## **2. Method**

This research employs a descriptive qualitative approach to analyze copyright protection for Open Source Software (OSS) within the context of Indonesian law.<sup>8</sup> This approach was chosen because the primary focus of the study is to understand the legal phenomena occurring in the field and to explore various perspectives regarding the legal implications of OSS circulating in Indonesia. In this study, the descriptive method is used to provide a detailed description and analysis of how copyright protection is applied to OSS, as well as how existing regulations in Indonesia support or limit OSS development.

The data used in this research is sourced from relevant literature reviews, including books, journal articles, research reports, and legislation related to copyright and OSS. Document analysis is conducted to understand the legal foundation and to assess how copyright law is applied in the context of OSS. In addition, the research includes interviews with legal experts, OSS developers, and other relevant stakeholders to obtain practical and theoretical perspectives on the issues under investigation.

Data analysis is conducted inductively, meaning that conclusions are drawn from the collected data through the process of interpreting legal documents and interviews. Thus, this study aims to provide a comprehensive overview of copyright protection

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<sup>6</sup> Osmar and Wardhani, "Perlindungan Hukum Pemegang Hak Cipta Program Komputer (Studi Kasus Putusan Nomor 60/Pdt. Sus-HakCipta/2020/PN. Niaga. Jkt. Pst)."

<sup>7</sup> Putra and Desmayanti, "Perlindungan Hak Cipta Sistem Operasi Komputer Dengan Lisensi Gpl 'General Public License' Berdasarkan Uu Hak Cipta Indonesia."

<sup>8</sup> Marzuki, "Penelitian Hukum,(Jakarta."

for OSS and to offer policy recommendations that can support the development of OSS in Indonesia while still considering the rights of creators and the principle of open collaboration.

### **3. Challenges to Copyright Protection of Open Source Software in Indonesia**

Copyright protection for Open Source Software (OSS) in Indonesia faces several challenges related to the incompatibility between the fundamental principles of copyright and the spirit of sharing that is at the heart of OSS itself. To understand these challenges, it is important to first comprehend the definition and characteristics of OSS, as well as how the application of copyright law in Indonesia, as outlined in Law No. 28 of 2014 on Copyright, interacts with the concept of OSS.<sup>9</sup>

Open Source Software is software whose source code is available to the public, allowing anyone to access, modify, and distribute it freely. This distribution model contrasts with proprietary software, which often locks the source code and restricts its use to specific purposes authorized by the license holder. The essence of OSS is to foster open collaboration among developers worldwide, with the goal of improving the quality and utility of the software. However, in its implementation, this spirit confronts the fundamental principle of copyright, which grants exclusive rights to the creator or copyright holder over their creation, including the right to control distribution, reproduction, and use of the work.

According to Indonesia's Copyright Law, copyright grants exclusive rights to the creator or copyright holder to regulate how their work is distributed and used. This right is intended to provide economic protection to the creator, so they can benefit financially from their work. However, in the context of OSS, this exclusive right is relinquished by the software creator, allowing others to modify and distribute the software without the obligation to pay royalties. Most OSS licenses, such as the GNU General Public License (GPL), Apache License, or MIT License, allow users to change and distribute the software without paying a dime to the original creator, which contradicts the traditional concept of copyright.<sup>10</sup>

This results in a tension between two main principles in copyright law: first, the exclusive right of the creator to control the use of their work, and second, the freedom provided by OSS licenses that allow for unrestricted distribution and modification without economic restrictions. In other words, in OSS, the creator chooses not to exercise their exclusive rights in the form of financial gain but instead grants freedom to users to contribute to the development of the software.<sup>11</sup>

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<sup>9</sup> Ramadhan, "Perlindungan Hukum Terhadap Bahasa Pemrograman Dalam Undang-Undang Tentang Hak Cipta."

<sup>10</sup> Vitriana and Putra, "Hak Cipta Dalam Digitalisasi Koleksi Perpustakaan."

<sup>11</sup> Asmara, Arifin, and Anwar, "Penyelesaian Sengketa Hak Cipta Antara Pencipta Lagu Dan Penyanyi."

One significant challenge in applying copyright to OSS in Indonesia is the lack of deep understanding among software developers regarding the legal implications of the licenses they choose. Many OSS developers in Indonesia have not fully understood the various types of licenses available and how their legal obligations may differ depending on the license they choose. One commonly used license by OSS developers is the GNU General Public License (GPL), which grants users the freedom to modify and distribute the software, but under the condition that any derivative software produced from such modifications must remain licensed under the GPL and remain open source.<sup>12</sup>

However, despite licenses like GPL aiming to keep the software open and free, many developers in Indonesia are unaware that they have a legal obligation to keep the source code of their derivative software open source and cannot turn it into proprietary or closed commercial software. This misunderstanding may lead to legal violations, whether intentional or unintentional, when developers use or distribute modified software in a commercial context without adhering to the licensing obligations.

For example, if a developer uses OSS licensed under the GPL to build a derivative product and then sells it with a closed license, the developer would violate the GPL provisions that require the derivative software to remain open. This becomes more complicated in Indonesia, where the understanding of OSS licenses and the legal implications of using open source software is still limited.<sup>13</sup>

It is crucial for software developers in Indonesia to fully understand the differences between various OSS licenses and ensure that they comply with the obligations specified in the license they choose. Failure to understand and follow OSS licenses can lead to copyright violations that could result in legal consequences, including lawsuits from copyright holders or organizations that manage software licenses.

Addressing this issue of misunderstanding requires greater efforts from the government, academia, and the developer community to provide more in-depth education on OSS licenses and their application within the context of Indonesian law. OSS developers need to be educated on the importance of choosing the appropriate license for their projects and the legal consequences that can arise if the license is not followed correctly. The Indonesian government, through relevant institutions such as the Ministry of Law and Human Rights, needs to conduct more intensive outreach on OSS licenses and the regulations governing copyright, so software developers are aware of and understand their rights and obligations in developing OSS.<sup>14</sup>

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<sup>12</sup> Ervan Susilowati and S IP, *Hak Kekayaan Intelektual (HKI) Di Indonesia*.

<sup>13</sup> Fathanudien and Maharani, "Perlindungan Hukum Hak Cipta Terhadap Buku Elektronik (E-Book) Di Era Globalisasi."

<sup>14</sup> HUTAHEAN, "Perlindungan Hukum Terhadap Programmer Komputer Dari Pembajakan Program Komputer Menurut Undang-Undang Nomor 28 Tahun 2014 Tentang Hak Cipta."

Furthermore, the general public also needs to be educated on the importance of using software legally, including OSS. Through this education, the public will be able to appreciate and protect works that have been released as OSS, as well as support developers in their efforts to innovate and collaborate openly. Without proper education, many developers are left confused about their rights and obligations when using or developing OSS, which can lead to unintended legal violations.<sup>15</sup>

Another major challenge is finding a balance between copyright protection and the collaborative spirit underlying OSS. On one hand, the copyright system is designed to provide protection to creators by granting exclusive rights over their works. However, in the context of OSS, this principle must be adjusted so it does not hinder the freedom that is characteristic of OSS. OSS creators choose not to exercise their copyright for financial gain but instead give freedom to others to contribute to the software's development.

However, copyright is still needed to protect OSS developers from piracy and misuse of their works. While many OSS licenses allow free use, modification, and redistribution, developers still need the right to control the use and distribution of their software within certain limits. Therefore, a more flexible approach to applying copyright law is needed, one that can accommodate the open spirit of OSS but still provide adequate protection for its developers.<sup>16</sup>

In this regard, Indonesia needs to develop clearer regulations regarding copyright protection for OSS, which not only acknowledges the rights of creators but also supports open collaboration and knowledge sharing. A more adaptive legal approach will allow OSS to continue to grow without sacrificing copyright or the fundamental principles that protect creative works. Additionally, more flexible regulations will encourage more developers to innovate and share their creations with the community, ultimately accelerating technological development in Indonesia.<sup>17</sup>

Given the challenges in understanding and applying OSS licenses, as well as the legal uncertainties related to copyright protection for open source software, the development of OSS in Indonesia requires greater attention in terms of law and regulation. The government, developers, and the public must collaborate to address these issues through education, outreach, and the updating of relevant regulations, so OSS can thrive without disregarding the rights of creators and the principles of collaboration that underpin it. Only through a more balanced approach between copyright protection and the freedom to innovate can Indonesia create a healthy and

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<sup>15</sup> KRISTANIA, "Kajian Penggunaan Teknologi Free Open Source Software Terhadap Program Indonesia Go Open Source Berdasarkan Pendekatan Tam Di Amik Bsi Purwokerto."

<sup>16</sup> Kristopansen, Widiarty, and Nainggolan, "Pengaruh Teknologi Dalam Perkembangan Hak Cipta."

<sup>17</sup> Lubis, "Modifikasi Aplikasi Whatsapp GB Menurut Pasal 52 Undang Undang No. 28 Tahun 2014 Tentang Hak Cipta."

sustainable OSS ecosystem that will support technological advancement in the future.<sup>18</sup>

#### **4. Copyright protection of Open Source Software (OSS) in Indonesia**

Copyright protection for Open Source Software (OSS) in Indonesia faces various challenges related to the incompatibility between the fundamental principles of copyright and the spirit of sharing that is at the core of OSS itself. To understand these challenges, it is important to first comprehend the definition and characteristics of OSS, as well as how the application of copyright law in Indonesia, as outlined in Law No. 28 of 2014 on Copyright, interacts with the concept of OSS.<sup>19</sup>

Open Source Software is software whose source code is publicly available, allowing anyone to access, modify, and distribute it freely. This distribution model contrasts with proprietary software, which often locks the source code and restricts its use only to specific purposes authorized by the license holder. The essence of OSS is to create open collaboration among developers worldwide, with the goal of improving the quality and utility of the software. However, in its application, this spirit confronts the fundamental principle of copyright, which grants exclusive rights to the creator or copyright holder over their creation, including the right to control distribution, reproduction, and use of the work.

According to Indonesia's Copyright Law, copyright grants exclusive rights to the creator or copyright holder to regulate how their work is distributed and used. This right is intended to provide economic protection to the creator, so they can benefit financially from their work. However, in the context of OSS, this exclusive right is relinquished by the software creator, allowing others to modify and distribute the software without the obligation to pay royalties. Most OSS licenses, such as the GNU General Public License (GPL), Apache License, or MIT License, allow users to change and distribute the software without paying anything to the original creator, which contradicts the traditional concept of copyright.<sup>20</sup>

This results in a tension between two key principles in copyright law: first, the creator's exclusive right to control the use of their work, and second, the freedom granted by OSS licenses that allow for free distribution and modification without economic restrictions. In other words, in OSS, the creator chooses not to exercise their exclusive rights in the form of financial gain but instead gives freedom to users to contribute to the development of the software.

One significant challenge in applying copyright to OSS in Indonesia is the lack of deep understanding among software developers regarding the legal implications of the licenses they choose. Many OSS developers in Indonesia have not fully understood

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<sup>18</sup> Pratama, "Hak Atas Kekayaan Intelektual Dalam Teknologi Informasi Dan Komunikasi."

<sup>19</sup> Rahayu, "Perlindungan Hak Cipta Terkait Penggunaan Font Berlisensi Personal Use Secara Komersial Berdasarkan Undang-Undang Nomor 28 Tahun 2014 Tentang Hak Cipta."

<sup>20</sup> Rahman and Bintang, "Pelanggaran Hak Cipta Program Komputer Sistem Operasi Windows."



the various types of licenses available and how their legal obligations may differ depending on the license they select. One example of a commonly used license by OSS developers is the GNU General Public License (GPL), which grants users the freedom to modify and distribute the software, but with the condition that any derivative software produced from such modifications must remain licensed under the GPL and remain open source.<sup>21</sup>

However, despite licenses like GPL aiming to keep the software open and free, many developers in Indonesia are unaware that they have a legal obligation to keep the source code of their derivative software open source and cannot turn it into proprietary or closed commercial software. This misunderstanding may lead to legal violations, whether intentional or unintentional, when developers use or distribute modified software in a commercial context without meeting the licensing obligations.

For example, if a developer uses OSS licensed under the GPL to build a derivative product and then sells that product with a closed license, the developer would violate the GPL provisions that require the derivative software to remain open. This becomes more complicated in Indonesia, where understanding of OSS licenses and the legal implications of using open-source software is still limited.<sup>22</sup>

It is crucial for software developers in Indonesia to fully understand the differences between various OSS licenses and ensure they comply with the obligations outlined in the license they choose. Failure to understand and adhere to OSS licenses can lead to copyright violations that may result in legal consequences, including lawsuits from copyright holders or organizations managing software licenses.

Addressing this issue of misunderstanding requires greater efforts from the government, academia, and the developer community to provide more in-depth education on OSS licenses and their application within the context of Indonesian law. OSS developers need to be educated on the importance of selecting the appropriate license for their projects and the legal consequences that can arise if the license is not followed correctly. The Indonesian government, through relevant institutions such as the Ministry of Law and Human Rights, needs to conduct more intensive outreach on OSS licenses and the regulations governing copyright, so software developers can be aware of and understand their rights and obligations in developing OSS.<sup>23</sup>

Furthermore, the general public also needs to be educated on the importance of using software legally, including OSS. Through this education, the public will be able to

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<sup>21</sup> AZML, "Penggunaan Software Bajakan Pada Pembelajaran Di Sekolah Smk Muhammadiyah 03 Aek Kanopan Perspektif Mui Nomor 1/Munas VII/Mui/5/2005 Tentang Perlindungan Hak Kekayaan Intelektual."

<sup>22</sup> Bisma Gautama, "Implementasi Pasal 9 Ayat 3 Undang-Undang Nomor 28 Tahun 2014 Tentang Hak Cipta Berkaitan Dengan Penggandaan Dan/Atau Penggunaan Ciptaan Secara Komersil Tanpa Izin Pencipta Di Kabupaten Bangli."

<sup>23</sup> Fadiya, "Pengaruh Motivasi Penggunaan Software Bajakan Terhadap Pengetahuan Software Open Source Dikalangan Tenaga Pendidik UIN Ar-Raniry."

appreciate and protect works that have been released as OSS, as well as support developers in their efforts to innovate and collaborate openly. Without proper education, many developers are left confused about their rights and obligations when using or developing OSS, which can lead to unintended legal violations.

Another major challenge is finding a balance between copyright protection and the collaborative spirit underlying OSS. On one hand, the copyright system is designed to provide protection to creators by granting exclusive rights over their works. However, in the context of OSS, this principle must be adjusted so that it does not hinder the freedom that is characteristic of OSS. OSS creators choose not to exercise their copyright for financial gain but instead give others the freedom to contribute to the development of the software.<sup>24</sup>

However, copyright is still needed to protect OSS developers from piracy and misuse of their works. While many OSS licenses allow free use, modification, and redistribution, developers still need the right to control the use and distribution of their software within certain limits. Therefore, a more flexible approach to copyright law is needed that can accommodate the open spirit of OSS while still providing adequate protection for its developers.

In this regard, Indonesia needs to develop clearer regulations regarding copyright protection for OSS, which not only acknowledges the rights of creators but also supports open collaboration and knowledge sharing. A more adaptive legal approach will allow OSS to continue to grow without sacrificing copyright or the fundamental principles that protect creative works. Additionally, more flexible regulations will encourage more developers to innovate and share their creations with the community, ultimately accelerating technological development in Indonesia.<sup>25</sup>

Given the challenges in understanding and applying OSS licenses, as well as the legal uncertainties related to copyright for open-source software, the development of OSS in Indonesia requires greater attention in terms of law and regulation. The government, developers, and the public must collaborate to address these issues through education, outreach, and the updating of relevant regulations, so OSS can thrive without disregarding the rights of creators and the principles of collaboration that underpin it. Only through a more balanced approach between copyright protection and the freedom to innovate can Indonesia create a healthy and sustainable OSS ecosystem that will support technological advancement in the future.

## **5. Conclusion**

Copyright protection for Open Source Software (OSS) in Indonesia faces significant challenges, particularly regarding the incompatibility between the fundamental

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<sup>24</sup> Fauzy, "Rekonseptualisasi Perlindungan Hukum Atas Hak Cipta Terhadap Artificial Intelligence Di Indonesia."

<sup>25</sup> Ilham, "Pencatatan Perjanjian Lisensi Open-Source Software Sebagai Residu Dari Formalitas Hak Cipta."

principle of copyright, which grants exclusive rights to creators, and the spirit of sharing that is the foundation of OSS. The OSS distribution model, which allows anyone to access, modify, and distribute software without the obligation to pay royalties, contradicts the traditional concept of copyright, which emphasizes economic protection for creators. This creates a dilemma in the application of copyright law in Indonesia, which is still focused on exclusive ownership and lacks the flexibility needed for OSS development.

Therefore, adapting copyright regulations in Indonesia is crucial to support the growth of the OSS ecosystem. One critical step is to revise the Copyright Law to accommodate the core principles of OSS, which focus on open collaboration and knowledge sharing. Additionally, it is important to introduce a clearer and more diverse OSS licensing system, which allows developers to choose licenses that align with the goals of their projects, whether for personal or commercial use. Strengthening oversight of copyright violations involving OSS is also essential to ensure that OSS developers remain protected from the misuse of their work.

With these steps, Indonesia can create a more conducive environment for OSS innovation and development. Adapting more flexible regulations will support collaboration, provide fair protection for software creators, and drive sustainable technological progress in Indonesia. This will also strengthen the OSS ecosystem and enhance Indonesia's contribution to the global technology landscape.

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