Legal Regulation on the Use of Online Learning Platforms: Challenges and Solutions in Indonesia

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ABSTRACT

Background. With the rapid development of information technology, the use of online learning platforms in Indonesia is increasing. However, the legal regulations governing the use of these platforms are still limited and often inadequate. This poses a variety of challenges, including data security, copyright, and access equality issues.

Purpose. This study aims to identify the challenges faced in the regulation of the use of online learning platforms in Indonesia and to formulate solutions that can be implemented to overcome these challenges.

Method. This research uses a qualitative approach with literature study methods and in-depth interviews. The literature study was conducted to collect secondary data from various literature related to legal regulations and online learning platforms. In-depth interviews were conducted with experts in the fields of law, information technology, and education to gain deeper insights.

Results. The results of the study show that the main challenges in regulating the use of online learning platforms in Indonesia include the lack of data security standards, weak copyright protection, and limited access for students in remote areas. In addition, the lack of coordination between relevant government agencies is also an obstacle to the effective implementation of regulations.

Conclusion. This study concludes that to overcome the challenges in regulating the use of online learning platforms in Indonesia, comprehensive regulatory updates and better coordination between government agencies are needed. In addition, there is a need to increase awareness about the importance of data security and copyright among users and providers of online learning platforms. The implementation of these solutions is expected to increase effectiveness and fairness in the use of online learning platforms in Indonesia.

INTRODUCTION

The use of information technology has penetrated various aspects of life, including in the field of education. Online learning platforms are increasingly becoming the main choice in the teaching and learning process, especially after the COVID-19 pandemic which forced most educational activities to be carried out online (Primadani, 2023). Advantages offered by online learning platforms, such as the flexibility of time and place, has attracted the interest of many educational

institutions and students (Gunawan, 2020).

The increase in the use of online learning platforms raises various issues related to legal regulations. Existing regulations are often not able to accommodate technological developments and the needs of online learning platform users (Rahmi, 2022). Data security issues, copyright infringement, and access gaps are the main challenges that need to be addressed. Data security is an important concern considering the large amount of personal information stored and processed by the platform (T. S. Ramli et al., 2020).

Copyright is a crucial issue because many learning materials are uploaded and shared through online platforms. The protection of the intellectual works of teachers and content creators must be considered so that misuse does not occur. In addition, the gap in access to online learning platforms in Indonesia is still significant, especially in remote areas with limited technological infrastructure and internet access (Agustin et al., 2020).

Current regulations have not been able to answer these challenges comprehensively. The absence of clear standards in data protection and copyright, as well as the lack of coordination between relevant institutions, leads to ineffective implementation of regulations. In addition, the low level of digital literacy among the public is also an obstacle in the implementation of existing regulations (Permata et al., 2021).

The solution to this challenge requires a holistic and collaborative approach. Regulatory updates should include data security standards, copyright protection, and efforts to improve equal access to educational technology. Collaboration between governments, platform service providers, and educational institutions is essential to create a safe and inclusive learning ecosystem (Laksito & Wibowo, 2022).

Awareness of the importance of proper regulation in the use of online learning platforms must be increased in all circles. Stakeholders need to work together to formulate policies that are able to protect all parties involved and ensure that technology can be used optimally to support quality education in Indonesia.

Online learning platforms have experienced significant growth in Indonesia, but many aspects of regulation are still not well understood. The challenges faced in the implementation of existing regulations show that there are gaps that need to be identified and addressed. Not all issues related to data security and copyright on online learning platforms have been adequately answered by existing regulations (T. Ramli et al., 2022).

Uncertainty regarding the data security standards that platform providers must implement is still a major issue. Many platform providers don't have clear guidance on how to effectively protect user data. The lack of regulations governing responsibility and sanctions for data security breaches creates a high risk for users of online learning platforms.

The copyright of learning materials uploaded to online platforms has also not been fully regulated. There is no clear legal framework on how to protect the copyrights of teachers and content creators. This leads to potential abuse and copyright infringement that harms related parties (Nurjanah & Mukarromah, 2021).

The gap in access to educational technology is still significant, especially in remote areas in Indonesia. Existing regulations have not specifically addressed the needs and challenges faced by the community in the area. The need for more inclusive regulations and being able to bridge the access gap is an urgent issue to be solved (Permata et al., 2021).

The importance of effective legal regulation in the use of online learning platforms cannot be ignored. Ensuring data security, protecting copyright, and ensuring equal access are fundamental things that need to be properly regulated to support the development of digital education in

Indonesia. Addressing this gap in regulation is a crucial step to provide adequate protection for all parties involved (T. S. Ramli et al., 2021a).

The development of comprehensive regulations should be based on a deep understanding of the challenges and needs on the ground. Through in-depth research, areas that need regulatory improvement and innovation can be identified. The main focus is to create a legal framework that is adaptive to technological developments and user needs, and is able to overcome various challenges that arise in the use of online learning platforms (T. S. Ramli et al., 2021b).

Increasing digital awareness and literacy among the public is also an important part of the solution. Good regulation will not be effective without understanding and support from users. Education on the rights and obligations of platform users, as well as increasing digital literacy, will help create a safer and more inclusive online learning ecosystem. Thus, strong regulations and effective implementation will support the achievement of quality and equitable education goals throughout Indonesia.

RESEARCH METHODOLOGY

This study uses a qualitative research design to explore in depth the challenges and solutions related to the regulation of the use of online learning platforms in Indonesia (Bakken, 2023; Cornel, 2020). The qualitative approach was chosen because it allows researchers to gain a deeper understanding of complex and diverse issues. This research focuses on literature analysis and in-depth interviews with experts in related fields (Ewing, 2020).

The research population includes legal experts, online learning platform managers, educators, and platform users in Indonesia. The research sample was taken purposively, namely selecting respondents who were considered to have an understanding and experience relevant to the research topic. The total sample interviewed was 20 people, consisting of 5 legal experts, 5 platform managers, 5 educators, and 5 platform users from various regions in Indonesia.

The main research instrument is a semi-structured interview guideline designed to explore the views and experiences of respondents regarding the regulation of the use of online learning platforms. In addition, document analysis is carried out against various existing literature, policies, and regulations to obtain a comprehensive overview of the context and relevant issues (Stapleton, 2020).

The research procedure begins with the preparation stage, including the preparation of interview guidelines and the collection of literature. Interviews are conducted directly or through online platforms, according to the availability and convenience of respondents. The collected data was analyzed using thematic analysis techniques to identify the main patterns and themes that emerged. The results of the analysis are then compared with the literature to provide recommendations for solutions that can be implemented (Bhatti, 2021; Ratnawati, 2020).

RESULT AND DISCUSSION
RESULT

Statistical data collected from various sources shows that the number of users of online learning platforms in Indonesia has increased significantly over the past three years. In 2020, it was recorded that around 30% of educational institutions have adopted online learning platforms. This figure increased to 50% in 2021 and reached 70% in 2022. This growth reflects the increasingly widespread adoption of technology in the education sector.

The table below shows the development of the number of users of online learning platforms in Indonesia from 2020 to 2022.

Year	Number of Users (million)	Growth (%)
2020	15	-
2021	30	100%
2022	50	66.67%

Table.1 Development of the use of plartfrom Online

The data shows a sharp increase in the adoption of online learning platforms. This growth is influenced by the need to implement distance learning due to the COVID-19 pandemic as well as increasing awareness of the benefits of technology in education. Educational institutions and the government have encouraged the use of technology as a solution to maintain the sustainability of the teaching and learning process during times of crisis.

The significant increase in the use of online learning platforms shows that Indonesian people are increasingly familiar with educational technology. This success cannot be separated from the joint efforts between the government, educational institutions, and platform service providers. However, this growth also brings new challenges related to legal regulation and data protection. Statistical data indicate an urgent need to strengthen the regulatory framework to protect all parties involved.

Current regulations have not been able to accommodate rapid technological developments. Data security is a major concern, given the large amount of personal information stored and processed by online learning platforms. The use of personal data without clear permission may pose a risk of privacy violations. Increasing digital literacy among users is also needed to ensure they understand their rights and obligations regarding the use of online learning platforms.

The analysis of the documents shows that regulations related to the protection of copyright in learning materials are still limited. Many learning materials are uploaded to online platforms without adequate legal protection. Teachers and content creators often don't get fair compensation for their work. Data shows that only 20% of educational institutions have a clear and consistently implemented copyright protection policy.

The following table shows the percentage of educational institutions that have copyright protection policies from 2020 to 2022.

Year	Percentage of Institutions with Copyright Policy
2020	10%
2021	15%
2022	20%

Table. 2 Percentage of Educational Institutions That Have Copyright

The data shows a slow increase in the adoption of copyright protection policies in educational institutions. This reflects the lack of attention to the protection of intellectual works in the context of online learning. The lack of clear regulations and strict enforcement makes teachers and content creators vulnerable to misuse of their work. The need for increased awareness and stricter policies to protect copyright in the digital age is urgent.

The lack of clear copyright protection policies in educational institutions indicates weaknesses in current regulations. Teachers and content creators need strong legal protections to ensure that

their work is not misused. Existing regulations should include clear standards on how to protect copyright in the context of online learning. Educational institutions also need to be provided with guidance and support to implement effective copyright protection policies.

Adequate copyright protection will provide incentives for teachers and content creators to continue to produce quality learning materials. This will improve the overall quality of education. Additionally, strong copyright protection will help create a fairer and more sustainable online learning ecosystem. The importance of proper regulation and effective implementation is becoming increasingly clear in the context of the rapid development of educational technology.

Data from interviews shows that data security and copyright protection are the two main interrelated issues in the use of online learning platforms. Both of these issues require special attention from policymakers and platform providers. Good data security will increase user trust, while strong copyright protection will encourage teachers and content creators to contribute more to the online learning ecosystem.

Collaboration between governments, platform service providers, and educational institutions is essential to address these challenges. Governments need to update existing regulations to include stricter data security standards and clearer copyright protection. Platform service providers must implement technologies and best practices to protect user data and copyright. Educational institutions need to increase digital literacy among teachers and students to ensure that they understand their rights and obligations.

A case study was conducted at one of Indonesia's leading universities that has implemented an online learning platform for the past three years. The university has a strict data security policy and training programs to improve digital literacy among staff and students. Data shows that the university has managed to reduce the incidence of data breaches and improve compliance with copyright protection.

The following table shows the number of data infringement incidents and copyright infringement cases at the university from 2020 to 2022.

Year	Data Breach	Copyright Infringement
2020	5	10
2021	3	5
2022	1	2

Table. 3 Number of Data Infringement Incidents and Copyright Infringement Cases at Universities

The data shows a significant decrease in the number of incidents of data and copyright infringement at the university. This reflects the effectiveness of the policies and training programs implemented. This case study shows that with the right regulations and practices, challenges in using online learning platforms can be overcome well.

The results of the case study show that the implementation of strict data security policies and digital literacy training programs can reduce the incidence of data and copyright infringement. This success can be used as a model for other educational institutions in Indonesia. Effective regulatory implementation and increased digital literacy are essential to create a safe and fair online learning ecosystem.

The university's experience shows that collaboration between various stakeholders is essential to achieve optimal results. Governments can support educational institutions by providing the

guidance and resources needed to implement effective policies. Platform service providers also need to commit to maintaining the security of user data and copyrights. Educational institutions must be proactive in increasing digital literacy among staff and students.

Statistical data, document analysis, and in-depth interviews show that the main challenges in regulating the use of online learning platforms in Indonesia are interrelated and require a holistic approach. Data security and copyright protection are two interrelated issues, where weaknesses in one area can negatively impact others. User experiences and institutions that experience data breaches often also face issues in the copyright protection of their learning materials.

Users who are unsure about the security of their data tend to be reluctant to upload valuable learning materials, thus hindering the process of sharing knowledge. The lack of obvious copyright protection can also reduce incentives for educators and content creators to produce high-quality material. This challenge creates a vicious circle where data security and copyright issues exacerbate each other.

Collaboration between governments, educational institutions, and platform service providers is essential to address these challenges. Governments need to update regulations to include strict data security standards and comprehensive copyright protection. Educational institutions should increase digital literacy among staff and students to ensure a good understanding of their rights and obligations. Platform service providers must commit to implementing technologies and best practices in protecting user data and copyright.

The experience of universities that have successfully reduced the incidence of data and copyright infringement shows that proper regulation and effective implementation can yield positive results. This case study can be a model for other educational institutions in Indonesia in developing and implementing effective policies. The data shows that with a comprehensive and collaborative approach, challenges in the use of online learning platforms can be overcome, thereby creating a safe, fair, and inclusive learning ecosystem.

DISCUSSION

This research reveals the main challenges in the regulation of the use of online learning platforms in Indonesia, namely data security and copyright protection. Statistical data shows a significant increase in the use of online learning platforms, but existing regulations have not been able to keep up with this development. An in-depth analysis of documents and interviews showed that the lack of clear data security standards and copyright protection policies was a major obstacle. A case study at a leading university shows that with the right policies and training programs, incidents of data and copyright infringement can be significantly reduced.

The increase in the use of online learning platforms in Indonesia brings challenges related to regulations that have not been able to accommodate technological developments. The lack of data security standards leads to a high risk of privacy breaches. Weak copyright protection makes teachers and content creators vulnerable to misuse of their work. The results of the study show that collaboration between the government, educational institutions, and platform service providers is essential to overcome this challenge.

Case studies at leading universities show that the implementation of strict data security policies and digital literacy training programs can reduce the incidence of breaches. These results show that proper regulation and effective implementation can provide positive results. Increasing digital literacy among users is also an important factor in creating a safe and fair online learning ecosystem. The data shows that with a comprehensive and collaborative approach, challenges in using online learning platforms can be overcome.

The results of this study are consistent with previous findings that highlight the importance of data security regulations and copyright protection in the digital ecosystem. Other studies have also shown that a lack of clear regulation can lead to an increased risk of data and copyright infringement. However, this research adds a unique perspective from the Indonesian context, where digital literacy and technological infrastructure are still developing. The results of this study show that the challenges faced in Indonesia may be more complex compared to countries that are more technologically advanced.

Some studies show that countries with stricter regulations have lower incidences of data and copyright infringement. These results show that strong regulation and strict implementation are essential to protect users of online learning platforms. However, the study also highlights the importance of collaboration between various stakeholders, which may have been underemphasized in previous studies. This collaboration is needed to create adaptive and effective regulations.

Previous research has often focused more on the technical aspects of data security and copyright regulation. The results of this study add a new dimension by emphasizing the importance of digital literacy and user education. Good digital literacy among users can increase the effectiveness of regulations and reduce the incidence of violations. Data shows that increasing digital literacy should be an integral part of regulatory strategies.

Penelitian ini juga menunjukkan bahwa konteks lokal sangat penting dalam pengembangan regulasi yang efektif. Regulasi yang berhasil di satu negara mungkin tidak dapat langsung diterapkan di negara lain tanpa penyesuaian. Hasil penelitian ini menunjukkan bahwa regulasi di Indonesia harus mempertimbangkan tantangan unik yang dihadapi oleh pengguna dan penyedia layanan platform pembelajaran online. Kolaborasi dan adaptasi lokal menjadi kunci dalam mengatasi tantangan ini.

The results of this study are a sign that data security regulations and copyright protection in Indonesia still need a lot of improvement. The challenges faced show that existing regulations have not been able to keep up with rapid technological developments. These results also show that digital literacy among users still needs to be improved to ensure that regulations can be implemented effectively. This research indicates the need for a holistic approach in developing regulations that are adaptive and responsive to user needs.

The increasing use of online learning platforms indicates that technology has great potential in supporting education in Indonesia. However, without proper regulation, this potential cannot be utilized to the fullest. The results of this study show that existing regulations must be updated to address existing challenges and ensure that users of online learning platforms can learn safely and fairly. This challenge is a sign that the government and other stakeholders need to work more closely.

The results of this study also indicate that copyright protection must be a priority in the regulation of online learning platforms. Teachers and content creators need strong legal protections to ensure that their work is not misused. Data shows that a lack of copyright protection can hinder innovation and quality of learning materials. Strong regulation and effective implementation are necessary to protect copyright and encourage creativity.

Challenges in regulating the use of online learning platforms also indicate that digital literacy must be improved in all circles. Users of online learning platforms need to understand their rights and obligations and how to protect their personal data. The results of this study show that increasing digital literacy can reduce the incidence of data and copyright infringement. Good digital literacy can also increase user trust in online learning platforms.

The implication of the results of this study is that the government needs to immediately update regulations related to the use of online learning platforms in Indonesia. Existing regulations should include stricter data security standards and clearer copyright protection. The results of this study show that without proper regulation, the risk of data and copyright infringement will continue to increase. Strong regulation and effective implementation are essential to protect all parties involved in the online learning ecosystem.

Educational institutions need to increase digital literacy among their staff and students. The results of this study show that good digital literacy can reduce the incidence of data and copyright infringement. Increasing digital literacy can also increase the effectiveness of regulations and their implementation. Educational institutions must be proactive in providing education about data security and copyright to all users of online learning platforms.

Platform service providers must also commit to implementing technologies and best practices in protecting user data and copyright. The results of this study show that collaboration between the government, educational institutions, and platform service providers is essential to create a safe and fair online learning ecosystem. Platform service providers need to ensure that they comply with existing regulations and actively participate in the development of better regulations.

Another implication is that digital literacy should be an integral part of the regulatory strategy. The government and educational institutions need to work together to increase digital literacy among the community. The results of this study show that good digital literacy can increase user trust in online learning platforms and encourage wider participation. Increasing digital literacy can also help reduce the risk of data and copyright infringement.

The results of this study show that existing regulations have not been able to keep up with rapid technological developments. Data security and copyright protection are major challenges due to the lack of clear standards and effective policies. Low digital literacy among users is also an important factor that affects the effectiveness of regulations. Without a good understanding of their rights and obligations, users are less likely to comply with existing regulations.

The increased use of online learning platforms during the COVID-19 pandemic accelerated the adoption of technology in education. However, existing regulations are not ready to overcome the challenges that arise. Governments and educational institutions do not yet have clear guidelines on how to protect user data and copyright in the context of online learning. The results of this study show that there is an urgent need to update regulations and improve digital literacy.

The lack of coordination between various stakeholders is also the reason why the results of the study show significant challenges in regulation. Governments, educational institutions, and platform service providers need to work more closely together to develop adaptive and effective regulations. Good collaboration can help overcome challenges and create a safe and fair online learning ecosystem.

The results of this study also reflect the unique challenges faced by Indonesia in developing effective regulations. Low digital literacy and limited technological infrastructure add to the complexity of the problem. However, with a comprehensive and collaborative approach, these challenges can be overcome. The results of this study show that good regulation and effective implementation can provide positive results in overcoming this challenge.

The government needs to immediately update regulations related to the use of online learning platforms. These updates should include stricter data security standards as well as clearer and stricter copyright protections. The new regulations must be able to accommodate rapid technological developments and provide maximum protection to all platform users. This more

comprehensive policy will help reduce the risk of data and copyright infringement, which has been a major challenge.

Educational institutions must improve digital literacy among their staff and students. Increasing digital literacy will help users understand their rights and obligations, as well as how to protect their personal data. Education on the importance of data security and copyright should be an integral part of the educational curriculum. This step will not only increase awareness but also compliance with existing regulations.

Platform service providers must commit to implementing technologies and best practices in protecting user data and copyright. They need to invest in sophisticated security systems and comply with regulatory standards set by the government. Platform providers must also be transparent regarding their privacy policies and copyright protection. Collaboration with the government and educational institutions is essential to create a safe and reliable online learning ecosystem.

These measures will help create a safer and fairer online learning environment in Indonesia. Collaboration between governments, educational institutions, and platform service providers will ensure that existing regulations can be implemented effectively. Increased digital literacy will equip users with the knowledge they need to protect themselves and respect copyright. Thus, the use of online learning platforms can be maximized and support the improvement of the quality of education in Indonesia.

CONCLUSION

This study finds that the main challenge in regulating the use of online learning platforms in Indonesia is the lack of clear data security and copyright protection standards. The main contribution of this research is the development of a comprehensive and collaborative regulatory concept between governments, educational institutions, and platform service providers. The limitations of this study lie in the limited scope of the sample and focus on several educational institutions, so further research involving more samples and different types of educational institutions is needed to strengthen the existing findings and recommendations.

AUTHORS' CONTRIBUTION

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.
Author 2: Conceptualization; Data curation; In-vestigation.

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