

Critical Analysis of Copyright's Role in Achieving The Sustainable Development Goals

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Abstract

This study aims to critically examine the relationship between copyright and sustainable development goals as outlined by the United Nations and to assess the potential negative impacts of achieving these SDGs, particularly in terms of technological advancements in the innovation of copyright. Anticipation of these impacts can be addressed with various future-oriented solutions. A theoretical approach is employed to develop a theory that aligns with legal rules and principles concerning copyright and sustainable development. This research adopts doctrinal legal research methods, utilizing qualitative research with secondary data through literature review techniques. The findings indicate that copyright protection is a crucial enabler for fostering innovation, ensuring equal access to knowledge and technology, and supporting sustainable development in accordance with the goals of SDG 4 and SDG 9. However, in achieving SDG 4, there is a potential for cancel culture in the educational sector, which may lead to issues, and in achieving SDG 9, the potential elimination of private transportation could significantly impact copyright in terms of content creation and dissemination, leading to copyright infringement. In addition, the role of copyright in achieving sustainable development goals can give rise to debate about the copyright protection system and copyright protection theory.

Keywords:

*Copyright,
Education,
SDGS,
Technology*

1. Introduction

Intellectual property rights encompass legal mechanisms that provide exclusive rights to intellectual creations, innovations, and human made works. In the context of sustainable development, IPRs play a significant role in fostering innovation and societal well-being. The issue of intellectual property rights has emerged in global discussions on sustainable development regarding its role in green technology transfer. WIPO, as an international entity responsible for intellectual property rights, has highlighted its dedication to fulfilling the SDGs. It specifically focuses on goals that align closely with WIPO's mandate. WIPO is actively involved in executing the 2030 Agenda to help accomplish the SDGs by advocating for a fair and efficient IPR system that fosters innovation, creativity, and the advancement of science and technology worldwide. WIPO's international influence can play a role in promoting economic, social, and cultural progress through innovative means across nations. In addition to SDG 9, which is the main focus, support for the achievement of SDGs is starting to be developed and expanded, such as the goals for achievement of SDGs 4 (education), SDGs 5 (gender equality) and SDGs 17 (partnership) as WIPO's agenda implemented through cooperation with developing countries around the world.

In connection with the prior discourse, backing for SDG attainment can be executed through specific categories of intellectual property like patents, trademarks, geographical indications, and copyrights. Considering the nature of intellectual property, the impact of copyright in realizing SDGs is more feasible compared to other types due to its capacity as a creative output that individuals from any

national background can produce. The advancement of sustainable development goals such as quality education, infrastructure enhancement, inclusive industrialization, and innovation may be facilitated through copyrighted works aligning with their function; for example, copyright limitations within the realm of education that bolster SDG 4 and contemporary technology focused copyright creations supporting SDG 9.

In this regard, basically the achievement of SDGs is intended for the benefit of every country in the world to create a better life in the future. However, the achievement of SDGs can also have a negative impact on other countries, especially on poor countries and developing countries that have yet to be able to keep up with technological developments, allowing new problems in the country. One of them is related to the existence of an education gap; although SDG 4 strives to ensure equitable education, there are still significant education gaps in some countries. Factors such as unequal access, inadequate educational facilities, and discrimination against certain groups contribute to this issue. Addressing SDG 9 may help reduce disparities in technology access and usage, but many countries still need to work on resolving these challenges.

Previous research by Talkmore Chidede (2022) titled “The Role of Intellectual Property Rights’ Protection in Advancing Development in South Africa” in 2022 examines the relationship between IPR and SDGs focused on South African countries. The results showed that IPR protection can be utilized to achieve development issues, focusing on innovation, economic development, public health, and culture by requiring legal solid protection of IPR. Therefore, IPR protection must be utilized in a way that protects and sustains innovation and investment while maintaining cultural and traditional knowledge and safeguarding public health and welfare. Furthermore, in 2023, Muhammad Ali Alladuniah (Chidede, 2022) conducted research with the title “Intellectual Property in Achieving Sustainable Development Goals in Indonesia”, with the results of research on the role of intellectual property in realizing Sustainable Development Goals in Indonesia must be supported and implemented through government agencies in charge of intellectual property, in this case, the Director General of Intellectual Property.

The latest research was conducted by Ahmed Abdel Latif and Pedro Roffe (Abdel-Latif & Roffe, 2021) in 2024 with the title “The Interface Between Intellectual Property and Sustainable Development. The results showed that sustainable development has become a top priority on the global agenda, and the IPR regime supports the achievement of the SDGs. This has resulted in the emergence of a series of new policies and legal issues, such as the protection of genetic resources and traditional knowledge, how to accelerate the spread of green technologies, the right to improve, and the use of IPRs in agriculture. IPR institutions increasingly recognize the importance of sustainable development for a country's progress, and the protection of intellectual property rights can support the SDGs with adjustments in the principles of a country's regulated IPR system.

The difference with previous research is that there is a study in the research conducted, namely in this study, focused on the study of the role of copyright as part of intellectual property in the achievement of SDGs by analyzing the other side of copyright as a supporter of SDGs both positive and negative for the development of a country. Then, the discussion in this study is directed at analyzing the negative impact that may arise in the future with technological advances that can create innovations in the field of copyright. Still, these innovations made the world community actually abandon its identity as a country that has a characteristic through its culture but slowly abandoned the culture for the sake of achieving the SDGs.

This research aims to analyze the relationship between copyright and sustainable development goals as a global agenda through a series of global targets agreed by the United Nations to achieve sustainable development around the world. The SDGs aim to end poverty, protect the planet, and ensure that all people can live in peace and prosperity. In addition, this research also seeks to analyze the negative impact of achieving the SDGs that every country should be aware of, especially with regard to technological advances in the development of innovation in the field of copyright so that it can be anticipated with various solutions that can be used in the future.

2. Method

This study utilizes a theoretical framework commonly adopted by scholars to examine the legal principles that underlie copyright norms and their impact on sustainable objectives. Furthermore, this theoretical framework provides a strong foundation for examining the role of copyright in promoting

sustainable development. The research is based on secondary data and employs literature review methods relevant to the subject matter. Qualitative juridical analysis techniques are utilized with a focus on legal interpretation and inductive logical reasoning to elucidate the relationship between copyright and goals for sustainable development. The study aims to analyze the existing legal principles and their implications for sustainable development goals. This will involve an in-depth examination of how copyright laws and their enforcement can either support or hinder sustainable objectives such as environmental protection, economic development, and social equity. Additionally, the research will delve into case studies and comparative analysis of copyright laws in different jurisdictions to provide a comprehensive understanding of the practical implications of copyright norms on sustainable development. Moreover, the study will seek to identify potential areas of conflict between copyright protection and sustainable development goals and propose recommendations for policy reform to harmonize these objectives. This will involve an interdisciplinary approach that incorporates legal, economic, and social perspectives to offer a holistic analysis of the complex interaction between copyright norms and sustainable development.

3. Results and Discussion

3.1 Results

Copyright has long been seen as an essential tool for protecting the work of creators and ensuring they receive fair compensation for their efforts. However, there are those who argue that copyright laws can be overly restrictive and can stifle creativity and innovation. Critics of copyright laws often point to the way in which it limits access to knowledge and information. They argue that copyright can prevent the free flow of ideas and can hinder the development of new works. Additionally, they claim that copyright laws can be used to unfairly restrict competition and maintain the power of established creators and companies. Furthermore, some argue that the current copyright framework is not well-equipped to adapt to the digital age, where information can be easily and quickly shared across borders. This has led to concerns about the ability of copyright laws to keep pace with technological developments and to adequately balance the rights of creators with the public interest in accessing and using information.

In light of these criticisms, there is a call for copyright laws to be reformed to better balance the rights of creators with the need for greater access to knowledge and information. This includes exploring alternative models for compensating creators and ensuring that copyright does not unduly restrict the public's ability to engage with and build upon existing works. One alternative model that has gained traction is the concept of open licensing. Open licensing allows creators to retain some rights to their work while also enabling broader access and use by others. This approach seeks to strike a balance between protecting the interests of creators and promoting the dissemination of knowledge and information. Moreover, the role of copyright in achieving Sustainable Development Goals has also sparked discussions. Copyright, when properly balanced and aligned with the principles of SDGs, can incentivize innovation, support the dissemination of educational materials, and facilitate access to information necessary for sustainable development. It is evident that the intersection of copyright and SDGs requires a nuanced approach, one that acknowledges the need for effective protection of creators' rights while also advancing the broader public interest. As discussions around copyright reform continue, it is essential to consider the potential impact of changes on the achievement of SDGs and the overall advancement of society.

The impact of copyright on the advancement of the sustainable development agenda will be assessed based on enhanced creation and widespread sharing of information and knowledge related to environmentally friendly technology, increased use of open licenses, affordable availability of educational resources, and access to copyrighted materials in sustainable formats. The attainment of the SDGs will be gauged by a rise in royalties allocated to Indigenous communities, an increase in benefit-sharing arrangements, and an enhancement in the political recognition and influence of Indigenous peoples within WIPO as well as globally. Copyright, as a component of the intellectual property framework, will contribute to eradicating poverty by ensuring that copyrighted works are distributed widely and equitably among copyright owners or holders.

The concept of development has been widely adopted within the international framework for intellectual property, particularly at WIPO. Meanwhile, the World Trade Organization has addressed developmental issues in diverse ways. Both WIPO and the WTO frequently emphasize how robust

intellectual property laws can foster economic development, especially by encouraging foreign investment (Disemadi, 2023). The relationship between intellectual property and economic as well as social advancement is often a topic of contention due to concerns that WTO regulated provisions on IP protection do not align with the needs of developing nations but rather reflect only the interests of developed countries. These conflicts have grown more apparent over time, such as in instances regarding copyright extension for books where compensation to owners for their written work may not be in line with legal principles, leading copyright holders to restrict access to books and educational materials under exclusive rights.

Copyright is closely tied to the educational objective of promoting the creation and distribution of academic resources and intellectual creations by authors in the form of protected written works. The legal framework surrounding this exclusive copyright can present challenges for accessing educational materials, particularly in developing countries. WIPO, as an international organization, has established regulations regarding free access to copyrighted works and compulsory licensing for educational use. Copyright also contributes to advancing gender equality by guaranteeing women equal access to copyrighted and innovative works compared to men so that they can fully benefit from their creative assets.

More specifically, the role of copyright in achieving sustainable development goals can be implemented in SDG 4, which focuses on quality education, and SDG 9, which aims to build resilient infrastructure, encourage inclusive and sustainable industrialization, and foster innovation. These are critical to promoting access to knowledge and encouraging innovation and creativity in society. Moreover, the recognition and protection of intellectual property rights through copyright not only encourages innovation but also fosters an environment where technological solutions are available to address global challenges. The availability of technology and knowledge resources is critical in supporting the development and implementation of sustainable practices and solutions that are aligned with the goals of the SDGs. One of the fundamental aspects of copyright protection is its contribution to the production and dissemination of various cultural, educational, and technological materials.

Copyright protection encourages the production and dissemination of diverse cultural, educational, and technological materials, which is critical to advancing SDG 4 and SDG 9. By protecting the rights of creators and innovators, copyright contributes to the development and distribution of educational resources, including textbooks, research papers, and digital learning materials. In addition, copyright incentivizes the creation of new technologies and fosters the growth of industries that support sustainable infrastructure and innovation. The role of copyright as part of intellectual property rights in achieving SDGs 4 and 9 is multifaceted. Copyright not only spurs the development and dissemination of educational and technological resources but also serves to create a more equitable, inclusive, and innovative society that is crucial for sustainable development.

In addition to fostering inclusive access to knowledge and technology, adequate copyright protection plays a vital role in promoting global partnerships for knowledge sharing and innovation. By protecting the rights of creators and innovators, copyright not only facilitates the dissemination of educational resources and technology but also encourages collaboration and exchange of ideas on a global scale. These collaborations are crucial in harnessing the collective expertise and creativity of individuals and organizations across borders, leading to the development of innovative solutions to address pressing challenges in education, technology, and sustainable development. Moreover, copyright protection provides incentives for knowledge sharing and cross-border collaboration, creating an environment conducive to the transfer of technological knowledge and best practices, which is critical to achieving SDGs 4 and 9.

Adequate legal protection for copyright not only acknowledges and compensates the efforts of creators and innovators but also plays a crucial role in making sure that these valuable resources are available to underprivileged communities. By facilitating broader access to educational materials and technology, copyright protection contributes to addressing inequalities in the availability of quality education and innovative technologies. Through effective enforcement of copyright laws, nations can ensure that creators and innovators receive recognition and compensation for their contributions, thereby promoting a dynamic knowledge-based economy. Furthermore, copyright protection helps reduce the gap in digital access by enabling wider availability of educational and technological resources,

ultimately contributing to the fulfillment of SDGs 4 and 9. Additionally, it promotes the sharing of knowledge and the exchange of ideas, which is essential for advancements in education and technology.

Adequate copyright protection plays a vital role in this endeavor by providing a framework for the creation and dissemination of digital educational resources. By protecting the rights of content creators, copyright incentivizes the development of e-learning materials, online courses, and digital libraries, expanding the reach of quality education to diverse learners around the world (Kerimbayev, Nurym, Akramova, & Abdykarimova, 2023). In addition, copyright protection encourages the integration of assistive technologies that meet the needs of students with disabilities, promoting inclusive education in line with the principles of accessibility and non-discrimination. This inclusive approach to teaching not only meets the needs of marginalized communities but also contributes to the advancement of an inclusive society, in line with the overarching principles of the SDGs (Kerimbayev et al., 2023).

Relating to the previous discussion, in addition to its impact on accessible education, copyright protection plays a vital role in fostering technological innovation in various sectors, thereby contributing to the advancement of SDG 9. By protecting the rights of creators and innovators, copyright not only encourages the development and dissemination of new technologies but also provides the necessary incentives for continued research and development in various fields. A critical way in which copyright protection encourages innovation is by incentivizing the creation of technological solutions that address global challenges, such as advances in healthcare, environmental conservation, and economic development. Through patent protection and other forms of intellectual property rights, innovators are motivated to develop innovative technologies that contribute to the achievement of sustainable development goals beyond the fields of education and technology.

Copyright protection encourages the creation and distribution of new technologies, which is critical to supporting sustainable infrastructure and innovation, directly aligning with the goals of SDG 9. It ensures that innovators receive recognition and rewards for their contributions, promoting a vibrant knowledge-based economy and supporting the overarching goals of the SDGs. Moreover, copyright protection plays a vital role in promoting a lively and dynamic knowledge-based economy where the contributions of creators and innovators are recognized and rewarded. This, in turn, aligns with the overarching goals of the SDGs and supports the development of a society that is not only conducive to innovation but also strives for equality, inclusiveness, and sustainability.

One instance of the significant impact of copyright on SDG 9 can be observed in the technological advancements within Malawi's music industry. With the proliferation of new technologies and reduced recording and distribution expenses, more artists now have access to this sector than ever before. In Malawi, musicians serve as entrepreneurs, pioneers, inspirations, and cultural representatives. They have established a creative industry that not only generates employment opportunities but also amplifies the voice of Malawian culture globally. To assess this significance, WIPO has utilized the Guidelines on Surveying the Economic Contribution of Copyright-Based Industries to measure music and other creative industries' role in Malawi's progress. According to data from 2009, copyright-based sectors contributed 3.46% to the country's GDP and 3.98% to income - surpassing domains such as mining, construction, and transportation. The music field engages numerous musicians, composers, choreographers, promoters, and others while continuing its expansion since then.

The advancement of technology has not only expanded the music industry but also facilitated the unauthorized sharing of beloved songs outside the realm of copyright regulations. This unauthorized sharing can deter up-and-coming musicians in Malawi from transforming their creative efforts into a sustainable profession. The Malawi Copyright Society, at the forefront of modernizing the industry since 1992, advocates for legal downloads and administers the collective rights of its members. Since 2018, it has collaborated with WIPO and famous artist Tay Grin to directly engage with young people through a school-centered initiative called "Respect for Copyright." Influential figures like Tay Grin are promoting awareness about copyright as an instrument that cultivates creativity, fosters respect, and unlocks potential within Malawian music.

At its core, copyright protection serves as a fundamental enabler for creating a society that fosters innovation, ensures equal access to knowledge and technology, and supports sustainable development in line with the aspirations of SDGs 4 and 9. By addressing disparities in access to educational resources and technology, copyright protection is emerging as a critical factor in the pursuit of sustainable

development aligned with the goals outlined in SDGs 4 and 9. In essence, the role of copyright protection as a catalyst for achieving sustainable development goals is undeniable. Copyright protection not only fosters inclusive and accessible education but also drives progress across various sectors, and as stakeholders continue to embrace technology and innovation supported by copyright protection, they are collectively working towards achieving an inclusive, equitable, and sustainable future as envisioned in the sustainable development goals.

3.2 Discussion

Copyright is a crucial component of intellectual property rights that plays a significant role in the achievement of Sustainable Development Goals. By granting exclusive rights to creators, copyright incentivizes the production and dissemination of knowledge, creativity, and innovation, which are essential for sustainable development. One of the key ways in which copyright contributes to the SDGs is by promoting education and learning. Through the protection of literary, artistic, and scientific works, copyright encourages the production and accessibility of educational materials, thus supporting SDG 4: Quality Education. In order to fully understand the impact of copyright on the achievement of the SDGs, it is important to consider the balance between protecting creators' rights and promoting access to knowledge and information for the benefit of society as a whole. Finding this equilibrium is crucial for fostering innovation, promoting cultural diversity, and ensuring equitable access to essential resources, all of which are essential for the realization of the SDGs. Copyright also plays a crucial role in the promotion of cultural diversity and the preservation of traditional knowledge, which are essential components of sustainable development. By safeguarding the rights of creators and indigenous communities, copyright helps maintain diverse cultural expressions and supports the transmission of valuable knowledge from one generation to the next generation. Moreover, the enforcement of copyright protection fosters an environment that encourages investment in creative industries, leading to job creation and economic opportunities.

As we navigate the complex interplay between copyright, intellectual property rights, and sustainable development, it is crucial to ensure that copyright laws and policies strike a balance between rewarding creators and fostering access to knowledge and innovation for the betterment of society. Achieving this balance will require ongoing collaboration between policymakers, rights holders, and other stakeholders to uphold the principles of inclusivity, equity, and progress as espoused in the Sustainable Development Goals. It is evident that copyright plays a multifaceted role in the advancement of Sustainable Development Goals. In addition to the aforementioned contributions to quality education, economic growth, and cultural preservation, copyright also has a significant impact on the attainment of other SDGs. As we continue to navigate the intricate relationship between copyright and the SDGs, it is imperative to recognize the diverse ways in which copyright can contribute to a sustainable and inclusive future. This requires ongoing dialogue and collaboration among stakeholders to ensure that copyright laws and policies are designed to strike a balance between rewarding creators and promotion.

Related to the previous discussion, achieving sustainable development goals in education has brought about positive changes in education worldwide. However, it is imperative to critically analyze the potential negative impacts that may arise from this achievement. One of the main concerns is the risk of an education system focusing solely on achieving targets and indicators rather than prioritizing the quality of education, holistic student development, and individualized learning approaches. In addition, excessive emphasis on standardized testing and rigid curricula may lead to a narrow and uniform approach to learning which needs to be revised to include more flexibility for accommodating diverse needs of students. While the achievement of SDG 4 has undeniably improved access to education, it is crucial to consider not only its benefits but also explore possible consequences resulting from an excessively target-driven educational system. It is evident that the focus on achieving Sustainable Development Goal 4 has significantly improved access to education globally, but it is important to consider the potential drawbacks of a target-driven educational system.

One crucial aspect to address is the potential impact on the quality of education and the overall development of students. A system overly focused on meeting targets and indicators may compromise the holistic development of learners and could lead to a standardized approach that fails to accommodate individual learning needs. Furthermore, the emphasis on standardized testing and rigid curricula may inadvertently stifle creativity and critical thinking in students, hindering their ability to adapt to diverse challenges in the real world. In order to truly ensure sustainable development in education, it is essential

to strike a balance between achieving targets and maintaining the quality, flexibility, and diversity of learning experiences for students. As we delve deeper into the implications of target-driven education, it becomes evident that a nuanced approach is needed to navigate the complexities of achieving sustainable development in education while upholding the intrinsic value of holistic and individualized learning. The pressure to achieve SDG 4 targets inadvertently creates an environment that emphasizes quantity over quality. In some cases, this may lead to the neglect of essential aspects such as critical thinking, creativity, and holistic development in students. It is imperative to address these potential adverse impacts to ensure that the pursuit of SDG 4 is balanced and does not compromise the overall effectiveness and inclusivity of education systems around the world (Kerimbayev et al., 2023). Furthermore, it is imperative to critically examine and address potential adverse impacts to ensure a balanced and practical approach that prioritizes both the quantity and quality of education (Kerimbayev et al., 2023).

In connection to the prior conversation, the attainment of SDGS 4 is also a concern due to the potential emergence of cancel culture. In recent years, cancel culture has gained significant attention, particularly in relation to achieving SDGs 4. As we further investigate this subject, it is crucial to comprehend the intricacies and subtleties surrounding cancel culture and its influence on education. One factor to contemplate is the possible suppression of diverse perspectives in educational environments. Cancel culture's rapid condemnation and exclusion of individuals or concepts can hinder open discussions and critical thinking within academic institutions. This could impede exploration of different viewpoints and restrict the free exchange of ideas, which are integral aspects of a comprehensive education program.

Cancel culture's impact on educational systems needs careful scrutiny amid concerns about potential obstacles it poses towards accomplishing SDG 4 objectives regarding quality education for all individuals worldwide. Cancel culture has the potential to create a climate of fear within educational institutions, where individuals may feel hesitant to express diverse or controversial opinions. This fear of backlash can lead to self-censorship and a reluctance to engage in meaningful dialogue, ultimately undermining the principles of academic freedom and intellectual diversity. Furthermore, the pervasive nature of cancel culture in online spaces can result in a chilling effect on educators and students alike. The fear of public shaming or professional repercussions may deter educators from addressing complex or contentious topics in the classroom, limiting the depth and breadth of discussions essential for a well-rounded education.

In response to these concerns, it becomes essential for educational institutions to foster environments that uphold the values of open inquiry, respectful discourse, and inclusive learning. Empowering students to engage in constructive debates, embrace diverse perspectives, and challenge prevailing narratives can be pivotal in mitigating the potential negative impacts of cancel culture on education. As we navigate the complexities of cancel culture within educational settings, it is imperative to strike a balance between promoting accountability and preserving the principles of academic freedom, critical thinking, and knowledge exploration (Kerimbayev et al., 2023). By addressing these challenges, educational stakeholders can work towards fulfilling the objectives of SDG 4, ensuring equitable access to quality education that is enriched by a diverse exchange of ideas and perspectives.

The effects of the cancel culture phenomenon will impact educational curricula and academic freedom. The pressure to conform to prevailing societal norms and opinions may lead to self-censorship among educators and scholars, potentially resulting in homogenized or sterilized representations of knowledge. As a result, the richness and diversity of educational content may be compromised, impacting the holistic development of the academic field (Kerimbayev et al., 2023). In light of this, the intersection between cancel culture and SDG 4 is multifaceted and requires a deep understanding to address its implications and to consider its consequences. Appropriate efforts should be made to mitigate the impact of cancel culture on education (Garry, 2023).

Cancel culture has permeated various aspects of society, including the field of education in relation to copyright infringement. The rise of cancel culture has led to increased scrutiny of educational materials, with individuals and groups calling for the cancellation and removal of content deemed offensive or harmful. As a result, educators and content creators face growing pressure to navigate the fine line between freedom of expression and protecting copyrighted material (UNESCO, 2024). The influence of cancel culture on copyright in education is a complex and evolving issue. On the one hand,

there is a growing awareness of the need to respect intellectual property rights and ensure fair compensation for content creators. On the other hand, there is a tension between these goals and the demand for greater inclusivity, diversity, and representation in educational resources, as called for by the SDGs (Rodriguez, Greer, & Shipman, 2014).

The following discussion is related to the impact of achieving SDG 9, which has the potential to eliminate private transportation significantly. SDG 9 aims to build resilient infrastructure, promote sustainable industrialization, and foster innovation. By investing in transportation infrastructure and using sustainable technologies, countries can improve the efficiency, safety, and environmental impact of personal transportation systems. The absence of private transportation can have a wide-ranging effect on society, affecting various aspects of daily life. One of the most significant impacts is on individuals' ability to access essential services such as healthcare, education, and employment (Gumasung, Tadina, & Vidamo, 2021). With private transportation, people will find it easier to reach health facilities, educational institutions, and employment opportunities, leading to a decline in overall economic well-being and productivity. In addition, the absence of private transportation can limit mobility and hamper social connectivity (Wang, Phillips, Small, & Sampson, 2018).

The absence of private transportation can lead to social isolation and limited mobility, especially for those living in rural or underserved communities. This lack of mobility can lead to reduced social interaction, restricted access to community resources, and a feeling of disconnection from the wider community. In addition, the absence of private transportation can have a negative impact on the environment, as reliance on alternative forms of transportation can increase congestion and pollution. This, in turn, can have negative implications for public health and overall environmental sustainability. Overall, the absence of private transportation can have profound and diverse impacts on society, affecting individuals' access to essential services, social relationships, and the environment (Calderon-Tellez, Herrera, & Salinas-Rodriguez, 2023).

The negative impact of achieving SDG 9 by phasing out private transportation goes beyond the direct consequences on the transportation sector. While the goal is to reduce carbon emissions and promote sustainable transportation, it will intersect with copyright issues in unexpected ways (Shah, Jaya, & Piludaria, 2023). One significant aspect is the potential disruption to intellectual property rights associated with personal transportation. As innovative technologies and designs emerge to support the shift towards public and shared transportation, there is a growing need to navigate the implications of copyright protection. This includes considerations for proprietary software, designs, and systems that support modern methods of personal transportation (Shah et al., 2023).

The elimination of private transportation can have a profound impact on copyright in the context of content creation and dissemination. With private transportation functioning as a space for individual entertainment and information consumption, a shift towards public transportation could reshape the landscape for the delivery and accessibility of copyrighted content (Hilty et al., 2021). Exploring the intersection between SDG 9 and copyright reveals a complex web of implications that go far beyond surface-level impacts on transportation infrastructure alone. Understanding these nuances is critical to crafting a holistic strategy. However, it is also essential to address the challenges that may arise in terms of protecting intellectual property rights in the ever-evolving transportation landscape (Gracz & De Filippi, 2014).

As new technologies and systems to support public transportation emerge, so will systems that promote sustainable development while respecting intellectual property rights. When considering the intersection between SDG 9 and copyright, it is crucial to recognize the potential challenges and opportunities that may arise. On the one hand, the shift towards public and shared transportation could increase accessibility and affordability, potentially expanding the audience for copyrighted content. This can be an opportunity for creators and content providers to reach a more extensive and more diverse market, so they must ensure that copyright laws and protections can adapt to these changes.

The digitization of transport systems and the integration of entertainment and information services within public transport raises essential questions regarding copyright licensing, distribution, and copyright management of digital copyrighted works. As public transportation becomes a platform for content delivery, stakeholders need to navigate the complexities of copyright law to ensure fair compensation for creators and rights holders. As we continue to pursue SDG 9, it is critical to engage in a nuanced discussion that addresses the relationship between transportation innovation, sustainable

development, and copyright protection. This will require collaboration among policymakers, industry leaders, and intellectual property experts to develop a balanced approach that advances environmental sustainability while protecting the rights of creators and innovators.

In connection with the previous discussion, copyright has a role in the achievement of SDGs. Still, its implementation raises the doctrine that is contrary to the nature of the copyright protection system and the theory of copyright protection. Based on this, the pros and cons of the role of copyright in SDGs can be seen in the following table:

Table 1. The Pros and Cons of The Role of Copyright in SDGs

| Issue | Expert name | Pro | Cons |
|---|-------------------|-----|------|
| Achieving SDG'4 with Utilitarian theory/doctrin (Access to copyrighted educational materials) | Jeremy Bentham | √ | |
| Achieving SDG'4 with Intellectual Economy Theory. (Access to copyrighted educational materials) | Richard Posner | √ | |
| Achieving SDG'4 with the <i>Fair Use</i> Doctrine. (Access to copyrighted educational materials) | Fisher & William | √ | |
| Achieving SDG 9 with Incentive Theory (Protection of innovation and copyright in the creative industry) | Wendy J. Gordon | | √ |
| Achieving SDG's 9 with Innovation Sustainability Theory. (Protection of innovation and copyright in the creative industry) | Suzanne Scotchmer | | √ |
| Achieving SDG's 9 with the Doctrine of Balance of Rights and Obligations. (Protection of innovation and copyright in the creative industry) | Jessica Litman | | √ |

Source: Copyright Doctrine Data Analysis

Based on the data presented in the table, the following explanations can be provided:

1. Achieving SDG'4 with Utilitarian Theory

Utilitarianism, as a moral theory, can offer a comprehensive framework for evaluating and achieving Sustainable Development Goal 4 - Quality Education. By emphasizing the greatest good for the greatest number, utilitarianism advocates for policies and actions that maximize overall well-being and minimize suffering. In the context of SDG 4, this means prioritizing access to quality education for all, especially marginalized and disadvantaged communities. One of the key strengths of applying utilitarian theory to achieve SDG 4 is its focus on measurable outcomes. Utilitarianism encourages decision-makers to evaluate the impacts of educational policies and investments in terms of their overall contribution to human welfare. This approach can help in identifying and prioritizing interventions that are likely to have the most significant and positive impact on educational outcomes.

However, utilitarianism also has its limitations. Critics argue that it may overlook the rights and interests of minority groups or individuals. In the context of education, this could lead to the neglect of specific needs or cultural considerations within different communities. Additionally, the emphasis on quantifiable outcomes may undervalue the intrinsic value of education beyond its measurable impact on well-being. Furthermore, the utilitarian approach to education may raise ethical questions about the potential for unequal distribution of educational resources. For example, prioritizing the educational needs of the majority could lead to neglecting the specific requirements of minority groups, potentially perpetuating existing inequalities. Balancing the potential benefits and drawbacks of utilizing utilitarian theory to achieve SDG 4 is crucial. While it offers a systematic approach to maximize overall welfare through education, it is essential to consider its potential shortcomings and ensure that the rights and needs of all individuals and communities are upheld in the pursuit of quality education for all.

2. Achieving SDG'4 with Intellectual Economy Theory

The Intellectual Economy Theory offers a comprehensive approach to achieving Sustainable Development Goal 4 by emphasizing the significance of knowledge, innovation, and intellectual capital in driving economic growth and development. This theory posits that investing in education, research, and technology can lead to long-term sustainable development, thereby contributing to the advancement

of SDG 4, which aims to ensure inclusive and quality education for all. One of the key advantages of applying the Intellectual Economy Theory to SDG 4 is its potential to foster innovation and creativity in education, leading to the development of effective teaching methods and learning resources. This can ultimately enhance the quality of education and promote lifelong learning opportunities for individuals of all ages, aligning with the targets of SDG 4.

Moreover, by leveraging intellectual capital and knowledge resources, countries can strengthen their educational systems, facilitate knowledge transfer, and bridge the digital divide, thereby promoting equal access to quality education. This aligns with the principle of leaving no one behind, which is a cornerstone of the SDGs. However, the application of the Intellectual Economy Theory to SDG 4 also presents certain challenges. One of the main concerns is the potential for knowledge inequalities, where developed countries with greater intellectual resources may benefit more from this approach compared to developing nations. Furthermore, the effective implementation of this theory requires substantial investment in education, research, and technology, which may pose financial constraints for some countries. While the Intellectual Economy Theory offers promising avenues for advancing SDG 4, it is essential to consider the potential disparities and resource limitations that may arise. By addressing these challenges and maximizing the benefits of intellectual capital, countries can work towards realizing the vision of inclusive and quality education for all as outlined in SDG 4.

3. Achieving SDG'4 with the *Fair Use* Doctrine

Achieving SDG 4, which aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, is a complex and multifaceted goal. The Fair Use Doctrine plays a crucial role in this pursuit, offering both advantages and disadvantages that deserve careful consideration. One of the key advantages of employing the Fair Use Doctrine in the context of SDG 4 is its potential to facilitate the widespread dissemination of educational materials. By allowing the limited use of copyrighted works without the need for permission from or payment to the copyright holder, Fair Use can effectively lower the barriers to accessing educational resources. This is particularly significant in low-resource settings and for marginalized communities, where access to quality educational materials may be limited. However, the Fair Use Doctrine also presents certain drawbacks that require careful evaluation. One of the primary concerns is the potential for abuse, as the boundaries of Fair Use can sometimes be subject to interpretation and dispute. This ambiguity may lead to legal conflicts and uncertainties, potentially hindering innovation and investment in educational content creation.

In examining the intersection of achieving SDG 4 with the Fair Use Doctrine, it is essential to delve deeper into these nuances, considering the diverse perspectives and implications for all stakeholders involved in the global pursuit of quality education for all. Efforts to achieve SDG 4, which focuses on promoting inclusive and equitable education, must carefully navigate the complexities surrounding the Fair Use Doctrine. A comprehensive understanding of the potential benefits and drawbacks is essential for informed decision-making. On one hand, the Fair Use Doctrine's ability to facilitate the dissemination of educational materials is a significant advantage, particularly in underserved communities where access to quality resources is limited. By enabling educators and learners to utilize copyrighted works within certain parameters, Fair Use can contribute to the democratization of education and enhance the availability of diverse learning materials.

Conversely, concerns about the potential for abuse and ambiguity in interpreting Fair Use boundaries necessitate careful consideration. Misuse of Fair Use provisions could lead to legal disputes and undermine the incentives for content creation and innovation in educational resources, potentially impacting the overall quality and diversity of educational materials. As stakeholders continue to navigate the intersection of the Fair Use Doctrine and SDG 4, it is crucial to engage in open dialogues to address these complexities and ensure that the pursuit of quality education for all is balanced with the protection of intellectual property rights and incentivizing innovation in educational content creation. Collaborative efforts and thoughtful deliberation will be pivotal in leveraging the advantages of Fair Use while mitigating its potential drawbacks.

4. Achieving SDG 9 with Incentive Theory

SDG 9 aims to build resilient infrastructure, promote sustainable industrialization, and foster innovation. Achieving this goal is vital for creating inclusive and sustainable economic growth. Incentive theory provides a compelling framework for understanding the motivations behind

infrastructural development and industrialization. By examining the pros and cons of using incentive theory to achieve SDG 9, we can gain a deeper understanding of the potential benefits and drawbacks of this approach. One of the key advantages of applying incentive theory to SDG 9 is its ability to align the interests of various stakeholders towards a common goal. By offering incentives such as tax breaks or subsidies for sustainable infrastructure projects, governments can encourage private sector investment in crucial areas such as renewable energy, transportation, and digital connectivity. This can lead to accelerated progress towards SDG 9 targets while also stimulating job creation and economic development.

However, it's important to consider the potential drawbacks of relying solely on incentive theory to achieve SDG 9. Critics argue that excessive reliance on incentives may lead to short-term decision-making, where the long-term sustainability of infrastructure and industrial projects is compromised for immediate gains. Additionally, the effectiveness of incentives in driving sustainable development may vary across different regions and industries, raising concerns about equity and fairness in the distribution of developmental benefits.

5. Achieving SDG's 9 with Innovation Sustainability Theory

Achieving these goals requires a deep understanding of innovation sustainability theory, which emphasizes the need for innovative solutions that not only address current challenges but also ensure long-term environmental and social sustainability. Pros of using innovation sustainability theory to achieve SDG 9 include the potential for groundbreaking technological advancements that can improve infrastructure, promote sustainable industrial practices, and foster economic growth. By integrating sustainable practices into innovation, we can create more efficient and environmentally friendly solutions that benefit both present and future generations.

However, there are also cons to consider. One potential drawback is the cost of implementing sustainable innovations, which can be higher initially. Additionally, there may be resistance from industries accustomed to traditional practices, as well as challenges in ensuring that innovations truly align with sustainability principles. To truly grasp the potential of innovation sustainability theory in achieving SDG 9, it's essential to dive deeper into specific case studies and examples where this approach has been successfully applied. By examining real-world scenarios, we can gain a more comprehensive understanding of both the opportunities and challenges associated with integrating innovation and sustainability to meet the goals of SDG 9.

6. Achieving SDG's 9 with the Doctrine of Balance of Rights and Obligations

Achieving Sustainable Development Goal 9 poses a unique set of challenges and opportunities that can be effectively analyzed through the lens of the Doctrine of Balance of Rights and Obligations. This doctrine emphasizes the need to strike a harmonious balance between the rights and obligations of individuals, organizations, and governments in order to achieve overarching societal goals. At its core, the Doctrine of Balance of Rights and Obligations offers a framework for examining the interplay between the rights individuals and organizations possess and the corresponding obligations they have towards society and the environment. When applied to the context of SDG 9, this doctrine serves as a guiding principle for ensuring that progress in industry, innovation, and infrastructure is achieved in a responsible and sustainable manner.

One of the key advantages of using the Doctrine of Balance of Rights and Obligations in the context of SDG 9 is that it provides a nuanced approach to development. By considering not just the rights but also the obligations of different stakeholders, this doctrine encourages a comprehensive and sustainable approach to industrial and infrastructural progress. It also promotes accountability and responsible decision-making, ensuring that advancements in industry and innovation do not come at the expense of societal well-being and environmental health. However, one potential drawback of applying the Doctrine of Balance of Rights and Obligations is the complexity of defining and balancing rights and obligations across diverse stakeholders. It may also require extensive negotiation and compromise, which could potentially slow down the pace of development and infrastructure projects. Additionally, in some cases, there may be conflicting interpretations of rights and obligations, leading to challenges in implementation and enforcement.

Based on the table, the role of copyright in achieving the SDGs summarizes some of the main issues related to copyright in the context of achieving SDG 4 and SDG 9, along with the pro and con

arguments for achieving each SDG. It is hoped that this table provides a clearer understanding of how copyright can affect the achievement of sustainable development goals.

4. Conclusion

The role of copyright as part of intellectual property rights in the achievement of SDGs serves as a fundamental enabler for creating a society that fosters innovation, ensures equal access to knowledge and technology, and supports sustainable development in line with the aspirations of SDG 4 and SDG 9. By addressing disparities in access to educational resources and technology, copyright protection is emerging as a critical factor in the pursuit of sustainable development aligned with these goals. The role of copyright protection goes beyond promoting inclusive and accessible education; it also raises challenges such as the potential emergence of cancel culture, which may inhibit the exploration of diverse perspectives and limit the free exchange of ideas.

Furthermore, the technological advancements encouraged under SDG 9, such as the reduction of private transportation, may inadvertently reduce accessibility to essential services like healthcare, education, and employment, thereby affecting overall social and economic well-being. The digitization of transport and the integration of digital services also raise complex issues related to copyright licensing, distribution, and digital rights management. Developing countries face specific challenges in balancing equitable access to knowledge with the protection of creators' rights, and limited legal infrastructure often exacerbates this tension. To address these issues, policymakers and educational institutions are encouraged to adopt a balanced copyright framework that promotes open access to educational materials while still safeguarding intellectual property. Practical steps include the development of flexible licensing schemes (such as Creative Commons), investment in copyright education, the creation of collaborative copyright management systems, and international cooperation to build enforcement capacity without compromising access to knowledge, thus ensuring that copyright policy becomes a tool for inclusion rather than exclusion in the achievement of SDGs.

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