



**THE CHALLENGES OF PROTECTING COPYRIGHT IN THE DIGITAL AGE DUE
TO DIGITAL PIRACY**

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Abstract

This mini dissertation examines the challenges that arise in protecting copyright in the digital age due to piracy. With the rise and emergence of new technologies and the internet, piracy has only become a prevalent problem that threatens the economic viability of creative industries, harms the reputation, integrity, and dignity of copyright owners, and discourages innovation worldwide. Piracy has caused significant issues for copyright owners by infringing upon their exclusive rights to distribute their works without permission while profiting from their creations.

Due to the development of digital technology and the internet, it has become simpler for individuals to stealthily duplicate and distribute protected works, threatening the economic viability of creative industries. Piracy drastically decreases the number of legal sales of intellectual works, which costs a lot of money for authors, publishers, and other key stakeholders. It can have serious financial repercussions on both individual copyright holders and entire companies. This paper looks at several types of piracy, including peer-to-peer file sharing, streaming, and illicit downloads, and how they affect artists and businesses.

Due to the works being distributed without permission, it leads to a loss of control over how the work is presented and interpreted by the public. For instance, lower-quality pirated versions of a movie or album could give people a bad impression of the overall calibre of the work, which could influence sales and the reputation of the copyright owner. If creators are not assured of protection from piracy, creators might be less inclined to develop new works. Hence, the cultural and financial importance of the creative industry may be significantly impacted.

Furthermore, this study looks at the difficulties faced by the current legal and technological solutions used to prevent piracy. Due to the number of pirate websites that are available on the internet, it is evident that although legal and technological remedies have made a dent in piracy, they are still insufficient to solve the issue fully. This mini dissertation finishes with suggestions on how to strengthen copyright protection in the digital age, which includes but is not limited to better legal frameworks, stakeholder cooperation, and public awareness campaigns.

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CHAPTER 1: INTRODUCTION

1.1 Background

The rise of the digital age has made many industries undergo change. It has transformed the way individuals view and engage with the world. As a result, the distribution of musical and cinematic works has greatly changed, moving from small, live theatre venues to the distribution of recorded media like compact discs (CDs), and finally to online "content-on-demand" platforms.¹ Over the years there has been an emergence of VoD (Video-on-Demand) and MoD (Music-on-Demand) platforms such as Spotify, YouTube, Netflix, Hulu, Disney+, Amazon Prime Video, and many more, that have greatly increased the potential viewership of works, such as musical and cinematic works, to a large, global audience, at the user's convenience.²

The increased availability of mobile phones, computers, and the internet in the digital age has changed not only the nature and format of how works that copyright are protected are distributed but also the economic business models that surround them. These models and methods of content delivery have evolved over time with a consistent goal in mind: to maximise audience while maximising the return on investment for copyright owners by controlling the channels via which material is distributed.³

The ability of copyright owners to maintain their monopoly over their works has, however, been eroded by this development due to an increase in the illegal distribution of digital works that are copyright-protected online. The ease of sharing online has improved how works like musical and cinematic works are distributed.⁴ The objective of this dissertation is to analyse the impact of the internet on the ability of copyright owners to maintain exclusive control over their digital creations and safeguard them against instances of online piracy.

¹ MW Mathini "Enforceability of Digital Copyright on the Darknet" (2017) LLM thesis, University of Cape Town 10.

² Blue Ribbon "Digital Media Trends: The Rise of On-Demand Content" (18 May 2023) available at <https://blueribbontechnology.com/blog/digital-media-trends-the-rise-of-on-demand-content/> (accessed 10 April 2023).

³ MW Mathini (2017) LLM 10.

⁴ *Idem.*

Copyright protection aims to provide creators of works recognised by the Copyright Act 98 of 1978 (hereinafter the Copyright Act) exclusive rights to use or authorise others to use their work in certain ways, giving them the ability to control and receive fruits for their works.⁵ According to copyright theories, which are based on law, philosophy, and economics and consider the benefits that copyright ought to bestow, piracy places a disadvantage on copyright owners, which is unfair. The fairness theory of copyright emphasises that our laws should give authors what they deserve as they should be rewarded for their efforts and have ownership and control over the products of their labour.⁶

According to the personality theory, the authors' emotional connection to their creation should be safeguarded. This includes the authority to choose the publication date and to charge a fee for doing so.⁷ Copyright law creates exclusive rights and boundaries for copyright owners which gives copyright owners a monopoly during the duration of the copyright, however, piracy has limited this and as a result, copyright protection has become a pressing issue in the digital age, requiring new strategies and policies to address it.⁸

As technology started to expand, people began to depend on its breakthroughs as their sphere of application grew.⁹ Individuals are now more reliant on technological products than on genuine goods that were available before the advent of technology. In the modern, digitalised world, this poses a danger to IP laws and their enforcement.¹⁰ Technological advancements, such as digitisation of information, networking, and the internet, have significantly impacted the economics of reproduction, distribution, and publication. These changes have led to reduced costs

⁵ Copyright Act 98 of 1978.

⁶ J Meindertsma, "Theories of Copyright" (9 May 2014) available at <https://library.osu.edu/blogs/copyright/2014/05/09/theories-of-copyright/> (accessed 10 April 2023).

⁷ *Idem*.

⁸ A Albert, O Nosakhare "Challenges of Copyright Protection in The Digital Age: The Nigerian Perspective" (2022) 7159 Library Philosophy and Practice (e-journal) 20 available at <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=13905&context=libphilprac> (accessed 13 April 2023).

⁹ U Sarkar, A Priyadarshini "Copyright Protection in Cyberspace: Challenges and Concern" (2018) 4 *Supremo Amicus* 479.

¹⁰ U Sarkar & A Priyadarshini(2018) 479.

and a revision of long-held beliefs about intellectual property rules. For example, people used to buy CDs and DVDs to watch movies and music, transforming the way people consume media.¹¹

However, these days, purchasing CDs and DVDs is mostly unnecessary, even for music and books.¹² The simplest approach to obtain these forms of entertainment is to simply download them from various websites, such as Goojara and PirateBay, at the expense of copyrighted films and music albums.¹³

The idea of copyright was already in existence before the internet, and the development of CD burners made it possible for users to duplicate copyrighted software, films, and music.¹⁴ The digital age has brought other challenges for copyright protection, which include, inter alia, the ease of reproduction and distribution of copyright-protected works, difficulty in tracking infringements, international scope, fair use, and balancing access and protection.¹⁵ The unauthorised downloading of copyrighted material and the sharing of recorded music over the internet, frequently in the form of MP3 files or MP4 files, are some examples of copyright infringement in the digital environment.¹⁶

Other examples include the unauthorised use of text content on the internet by copying from one site to another without the author's consent. A person may be violating the author's copyright if they carry out one of the actions that are solely within their exclusive right.¹⁷

The Copyright Act protects works if they are original, such as literary works, musical works, artistic works, sound recordings, cinematograph films, sound and television broadcasts,

¹¹ *Idem.*

¹² *Idem.*

¹³ *Idem.*

¹⁴ *Idem.*

¹⁵ N Bharadwaj “Copyright Protection in the Digital Age: Challenges and Solutions” (2023) available at <https://www.legalserviceindia.com/legal/article-10639-copyright-protection-in-the-digital-age-challenges-and-solutions.html#:~:text=Complex%20Ownership%3A,the%20right%20to%20distribute%20it> (accessed 11 April 2023).

¹⁶ I Atansova “Copyright Infringement in Digital Environment” (2019) *The Journal of Law and Economics* 17.

¹⁷ U Sarkar & A Priyadarshini (2018) 47.

programme-carrying signals, published editions, and computer programs.¹⁸ Even though the protection is not necessarily recognised in section 25(4) (b) of the Constitution of the Republic of South Africa's bill of rights¹⁹ and is not universally accepted as a fundamental right. It is not excluded, and it is not necessary for it to be addressed separately in the Bill of Rights as the Constitution's section 25(4)(b) covers the general phrase "property," which includes intellectual property.²⁰

Piracy is a form of theft.²¹ In the past, commerce ships were invaded by pirates who seized anything they wished. However, piracy today typically refers to the theft of intellectual property.²² Digital piracy can be defined as the illegal act of copying digital goods, including software, digital documents, digital audio (including music and voice), and digital video, for any purpose other than backup without the owner's express consent and payment of a fair price.²³

Software piracy was common in the early days of the Internet because it was extremely easy to share software through chat rooms and other online forums. It did not require a talented programmer or hacker and any regular person with a computer had (still has) the potential to become a software pirate.²⁴ Internet piracy extended to incorporate various forms of digital content including music, movies, and video games as the internet developed and Peer-to-Peer file-sharing

¹⁸ *Idem* section 2(1) of the Copyright Act.

¹⁹ Constitution of the Republic of South Africa, 1996.

²⁰ *Ex parte Chairperson of the Constitutional Assembly: In re Certification of the Constitution of the Republic of South Africa*, 1996 1996 (4) SA 744 (CC).

²¹ D Sarokin "What Is the Effect of Piracy on a Business?" (2019) available at <https://smallbusiness.chron.com/effect-piracy-business-24541.html> (accessed 12 April 2023).

²² *Idem*.

²³ VPJ Paul, M Brandon, D Wilson "Determinants of Digital Piracy among Youth in South Africa" (2007) Communications of the IIMA: Vol. 7: Iss. 3, Article 5 47.

²⁴ Panda Security "What is Software Piracy?" (2019) available at <https://www.pandasecurity.com/en/mediacenter/panda-security/software-piracy/> (accessed 12 April 2023).

systems like BitTorrent,²⁵ and other newly developed websites like Goojara and PirateBay appeared.²⁶

There are many reasons why individuals decide to pirate certain works. As Putman states, not every person who has access to a computer and the internet is pirating works available on the internet. Most people abide by the law and pay for content on platforms such as Netflix and Spotify, they also pay for software they use such as Microsoft.²⁷ Piracy exists due to, inter alia, the inability to pay.²⁸ If an individual wants to legally watch and rewatch shows such as *The Crown*, *Game of Thrones*, and *The Handmaid's Tale*, you'll have to pay for three separate streaming services: Netflix, HBO, and Hulu. Before you know it, your monthly expenses will increase.

It is now simpler than ever to download content thanks to Peer-to-Peer file sharing (hereinafter P2P) networks and torrent websites. Everything is available on these networks, including software, music, movies, and books, and downloading them frequently only takes a few minutes. Some do it to make money on the side using other people's works, hackers download illegal material with the goal of reselling it for a profit.²⁹

Piracy has a significant impact on industries, such as the music, film, software, publishing, and gaming industries because it is a form of theft.³⁰ In the past, we would analyse a pirated movie release and determine the financial effects on movie ticket sales, DVD sales, and TV licence rights.³¹ However, the effect is even more profound in our digital day. The COVID-19 pandemic

²⁵ R Debe "What is Internet Piracy, Internet piracy comes in many forms" (2019) available at <https://www.lifewire.com/what-is-internet-piracy-4588155> (accessed 12 April 2023).

²⁶ *Idem*.

²⁷ P Putman "The Consequences of Digital Piracy" (2019) available at <https://www.uscybersecurity.net/digital-piracy/#:~:text=In%20many%20cases%2C%20people%20downlodcompanies%20have%20aenough%20mone%20> (accessed 12 April 2023).

²⁸ *Idem*.

²⁹ *Idem*.

³⁰ J.P Van Belle, B Macdonald & D Wilson "Determinants of Digital Piracy among Youth in South Africa" (2007) Communications of the IIMA: Vol. 7: Iss. 3, Article 5, 1.

³¹ Fraudwatch "How Piracy Affects Businesses In The Long Run" (2022) available at <https://fraudwatch.com/how-online-piracy-affects-businesses-in-the-long-run/> (accessed 13 April 2023).

increased the number of piracy incidents because people were looking for free entertainment during lockdowns.

Some countermeasures can be implemented to limit copyright violations.³² Bharadwaj, suggested solutions to digital piracy. He provides, inter alia, the use of digital right management which is a strategy that makes use of tools that restrict the use and duplication of proprietary software and works protected by copyright.³³ He also suggests the use of watermarking where a unique identifier is embedded in the digital content. These are ideas that will be examined in the dissertation. He further suggests the utilisation of Creative Commons licensing, which might be a solution for small creators but not for big creators like Sony or Universal Music Group who are known for wanting to make revenue from their works.³⁴

In summation, the internet has presented unprecedented challenges for copyright protection, with digital piracy posing a significant threat to various creative industries. This dissertation looks at such challenges and aims to consider potential solutions that can be used by creators to protect their works from being infringed.

1.2 Research Objectives, Questions and Hypothesis

1.2.1 Research Objectives

The aim of this dissertation is to:

- a) Examine the prevalence of internet piracy in the modern digital era.

³² A Albert, O Nosakhare "Challenges of Copyright Protection in The Digital Age: The Nigerian Perspective" (2022) 7159 Library Philosophy and Practice (e-journal) 20 available at <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=13905&context=libphilprac> (accessed 13 April 2023).

³³ N Bharadwaj "Copyright Protection in the Digital Age: Challenges and Solutions" (2023) available at <https://www.legalserviceindia.com/legal/author-51197-nikhilbharadwaj.html> (accessed 14 April 2023).

³⁴ N Bharadwaj (2023).

- b) Highlight challenges faced in copyright protection due to technological advancements.
- c) Investigate the impact of piracy on industries, copyright holders, and the public.
- d) Assess the effectiveness of contemporary digital copyright laws in curbing illegal online file sharing.
- e) Identify legislative shortcomings and suggest remedies for more robust copyright protection.
- f) Understand the complexities faced by copyright owners in tracking infringements through ISPs, considering the violation of rights, and
- g) Propose ways policymakers and industry stakeholders can support copyright holders in safeguarding their works against piracy.

1.2.2 Hypothesis

These aims are situated in the following hypothesis.

The difficulties of enforcing copyright laws across international borders, the ease of sharing digital content online, and the lack of efficient technological solutions to prevent piracy are just a few of the reasons why copyright protection is difficult in the digital age due to piracy. As there is no universal law that controls the internet at large, copyright infringement increased over the years due to many factors such as inter alia, high prices, limited availability, and the desire for free content. Due to a lack of technological capacity to monitor activity that infringes on copyright protection, the overall responsibility of detection and monitoring infringement, having been entrusted to content creators, has weakened digital copyright enforcement. Furthermore, it is anticipated that to properly address the difficulties of copyright protection in the digital era, a multifaceted strategy consisting of legal, technological, and educational initiatives is needed.

1.2.3 Research Questions

The dissertation aims to investigate the following questions:

- a) What are the main challenges that copyright holders face in protecting their works from piracy?
- b) What economic impacts does piracy have on the creative industries?
- c) Are our current efforts to enforce copyright laws truly working?
- d) What digital and legal options are there to combat copyright violations and piracy?
- e) How can legislators and industry stakeholders assist copyright owners in preventing piracy of their works?

1.3 Importance, Value, or Benefits of The Study

The importance, value, or benefits of the study is to contribute to the academic field of intellectual property law with the advancement of knowledge and understanding of the current legal issues surrounding copyright protection in this age of the internet. The findings made in this dissertation can be used to inform the development of policies and strategies that are aimed at protecting copyright. Furthermore, as piracy is a global issue that affects big industries such as music and film, writing on this issue can help raise awareness of this problem and promote international corporations in resolving the issue.

1.4 Methodology

This dissertation employs a critical legal analytical methodology, drawing primarily from a comprehensive literature review. It will scrutinise South African legislation alongside international legal instruments from the UK and the USA. The literature review delves into existing research on the subject, encompassing academic articles and pertinent literature from journals, reports, and online sources, facilitating a comparison of the diverse perspectives on the issue.

1.5 Research Design

This dissertation will consist of five chapters. Chapter 1 is introductory, and it establishes its relevance within the context of copyright protection and digital piracy. Its objective is to provide an overview of the dissertation's scope, highlight the importance of copyright in the digital age, outline the research questions to be addressed, and present the structure of the dissertation.

Chapter 2 will explore the evolution of copyright laws, specifically the Copyright Act 98 of 1978, tracing its historical development and underpinning concepts. Its objective is to define copyright and its fundamental principles, trace the evolution of copyright law from historical roots to modern times, and lay the groundwork for understanding copyright's role in the digital age.

Chapter 3 will investigate the implications of digital technologies on copyright protection and explore the challenges arising from the digitalization of creative works. The objective of this chapter is to examine how digital technologies have transformed content creation, distribution, and consumption and analyse the tension between copyright holders and digital platforms and identify key challenges to effective copyright enforcement.

Chapter 4 explores the phenomenon of digital piracy, including its various forms, its impact on creative industries and society, and potential countermeasures. The objective of this chapter is to define digital piracy and its manifestations (such as file sharing), analyse the economic consequences of piracy on copyright holders and industries, assess the effectiveness of legal actions against piracy, and discuss technological approaches to combating piracy.

Chapter 5 summarises the key findings from the previous chapters and provides recommendations for addressing copyright challenges in the digital age. Its objective is to recap the main points discussed in each chapter, reiterate the significance of copyright in the digital era, synthesise the broader implications of digital piracy, propose practical suggestions for strengthening copyright enforcement, and reflect on the potential future developments in copyright protection and enforcement.

1.6 Summation

In summation, this study will show that the digital age's difficulties with copyright protection are seriously hampered by digital piracy. Numerous copyright violations have been made possible by the simplicity of digital replication and dissemination combined with the anonymity offered by online platforms. Although necessary, the current legal system frequently falls behind regarding technological development, leading to enforcement gaps and restrictions. The shifting strategies used by digital pirates pose continual difficulties to technological safeguards, despite their relative effectiveness. Additionally, digital piracy has serious economic repercussions that harm copyright holders, content providers, and entire businesses. Additionally, it has provoked heated discussions about user access, intellectual property rights, and how to combine copyright protection with encouraging innovation and creativity. The chapter that follows the dissertation will delve into the historical development of the South African Copyright Act.

CHAPTER 2: COPYRIGHT'S HISTORICAL DEVELOPMENT AND LEGISLATIVE FRAMEWORK IN SOUTH AFRICA

2.1 Introduction

As shown in the previous chapter, the market is flooded with unauthorised copyrighted works, with copyright infringement becoming a common occurrence. Vendors selling illegally copied movies, series, music albums, and books are common in the central business centres across South Africa, especially in taxi ranks and small shops.³⁵ The internet has further increased copyright infringement, with rampant contraventions occurring in various ways. Normalising these conflicts can derail creativity.³⁶

This chapter looks at the international agreements that provide the basis for copyright law in various jurisdictions and the historical background of the Copyright Act in South Africa. The Berne Convention of September 9, 1886, for the Protection of Literary and Artistic Works (the Berne Convention), and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) to be more specific.

2.2 The Berne Convention

The Berne Convention, first adopted in 1886, protects literary and artistic works and is administered by the World Intellectual Property Organization (WIPO). Signed in Berne, Switzerland, it has been revised multiple times, with the last amendment in 1979.³⁷ The initial signatories included representatives from Britain, Germany, Belgium, Spain, France, Haiti, Italy,

³⁵ MyBroadBand “South African Movie, Music Piracy Labs Busted – Here They Are” (2015) available at <https://mybroadband.co.za/news/technology/119234-south-african-movie-music-piracy-labs-busted-here-they-are.html> (accessed 17 July 2023).

³⁶ Lokesh Pal “What Makes Copyright Infringement So Easy Online” (2023) available at <https://bytescare.com/blog/what-makes-copyright-infringement-so-easy-online/> (accessed 17 July 2023).

³⁷ S Ricketson ‘The Berne Convention for The Protection of Literary and Artistic Works; The Birth of the Berne Union.’ (1986) 11 (9) Colum. VLA J.L.& Arts 8.

Liberia, Switzerland, and Tunisia.³⁸ The USA joined the Berne Convention in 1989, and South Africa joined in 1928.³⁹

The Berne Convention aimed to develop an international system to combat unauthorised use of copyright-protected works but also expanded to include national treatment.⁴⁰ Each member state was required to provide equal copyright protection to nationals of other member states, ensuring that, for example, works of US nationals first generated in the USA receive the same protection in other Berne Union countries.⁴¹ The Convention also imposed substantive copyright standards, requiring protection for literary and artistic works through exclusive rights granted for a minimum duration of 50 years after the author's death.⁴²

Authors enjoy the following exclusive rights for the duration of the copyright:

- a) The right to authorise and approve translations of their work.⁴³
- b) The sole right to reproduce the work⁴⁴ (while national laws may make various exceptions that generally permit only restricted private and educational usage without violating intellectual property rights. This is permitted under Section 12 of the South African Copyright Act, (also known as ‘fair dealing’).
- c) The exclusive right to adapt or alter the work.⁴⁵

The following moral rights belong to the author as well:

³⁸ A Khan “Berne Convention” (2021) available at <https://www.theipmatters.com/post/berne-convention> (accessed 18 July 2023).

³⁹ World Intellectual Property Organization “Berne Convention for the Protection of Literary and Artistic Works” (2023) available at <https://www.wipo.int/export/sites/www/treaties/en/docs/pdf/berne.pdf> (accessed 18 July 2023).

⁴⁰ Encyclopaedia “Copyright, International” (2018) available at <https://www.encyclopedia.com/social-sciences-and-law/law/international-copyright> (accessed 18 July 2023).

⁴¹ *Idem*.

⁴² Berne Convention, Article 7(2).

⁴³ *Idem* Article 8, 9 12.

⁴⁴ *Idem* Article 9.

⁴⁵ *Idem* Article 12.

- a) The right to claim authorship.⁴⁶
- b) The right to object to any treatment of the work that would be detrimental to his honour or reputation.⁴⁷

Copyright laws aim to establish individual rights for authors while considering user needs and society. Article 9 of the Berne Convention outlines exceptions and limitations to maintain a fair balance between conflicting interests.⁴⁸ To keep copyright law fair and impartial, these limitations and exceptions are crucial. The TRIPS agreement also mentions the three-step test, which is a term used to describe the restrictions and exceptions.⁴⁹ The test places restrictions on exclusive rights in three areas: (a) unique circumstances; (b) non-interference with the work's usual exploitation; and (c) non-unreasonably harming the author's legitimate interests.⁵⁰ The test places restrictions on exclusive rights. a) in specific unique situations; b) that don't interfere with the work's typical exploitation; and c) that don't unduly jeopardize the author's rights and interests.⁵¹

2.3 The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)⁵² establishes global minimum standards for intellectual property protection. Previous international agreements

⁴⁶ *Idem* Article 6bis.

⁴⁷ *Idem* Article 6bis.

⁴⁸ Berne Convention, Article 9.

⁴⁹ M Senftleben “Copyright, Limitations and the Three-StepTest” (2004) 5.

⁵⁰ *Idem*.

⁵¹ *Idem*.

⁵² TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299, 33 I.L.M. 1197 (1994)

had measures in place for enforcement, but TRIPS strengthened these.⁵³ As a result of this improved dispute resolution process, countries were required to make changes to bring their laws and enforcement mechanisms into compliance with TRIPS.⁵⁴ Members embrace the concept of national treatment for the protection and enforcement of intellectual property rights.⁵⁵

The TRIPS agreement outlines minimum standards of copyright law protection, incorporating the obligations of the main conventions and including its substantive obligations in addition to those provided by the Berne Convention.⁵⁶ The main objective of TRIPS is to protect and enforce intellectual property rights (IPRs) that promote technological innovation, the transfer and dissemination of technology, the mutual advantage of producers and users, social and economic welfare, and a balance of rights and obligations.⁵⁷

Compliance with articles 1 to 21 of the Berne Convention is required for general obligations.⁵⁸ TRIPS also states that copyright protection extends to expressions, not ideas, and has a term of 50 years from the end of the authorised publication.⁵⁹ Members must restrict or exclude exclusive rights to specified extraordinary instances that do not conflict with routine utilisation of the work and do not unfairly impair the right holder's legitimate interests.⁶⁰ While the TRIPS agreement lays forth certain minimal requirements, it also acknowledges that other nations have varying degrees of development and that these nations' laws must be adjusted to meet their needs. As a result, it allows for a little flexibility.⁶¹

⁵³ NN Siphpho “Copyright and Developing Countries a Critical Examination of Recent Developments In Copyright Law with Particular Reference to The Impact on Developing Countries and Access to Educational Materials.” (2014) LLM University of KwaZulu-Natal 23.

⁵⁴ NN Siphpho (2014) LLM 1 23.

⁵⁵ *Idem*.

⁵⁶ Albert & Nosakhare (2022) at 23.

⁵⁷ *Idem* 23.

⁵⁸ TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Article 9.

⁵⁹ *Idem* Article 9(2) and 12.

⁶⁰ *Idem* Article 13.

⁶¹ *Idem*.

2.4 A Short History of The Development of Copyright Law in South Africa

The British Literary Copyright Act of 1842, which replaced the Statute of Anne, was the first legislative enactment to impact copyright in South Africa directly.⁶² This Act granted copyright to any work first published in the United Kingdom, regardless of the author's country of origin.⁶³ It also extended the protection of British copyright legislation to works originating in the British Dominions.⁶⁴ The Cape Colony introduced copyright legislation in 1854, followed by other acts such as the Books Registry Act and the Copyright Protection and Books Registration Act.⁶⁵

The Transvaal Republic followed suit with the introduction of copyright legislation in 1887, followed by Proclamation No. 24 of 1902, and the Orange Free State Republic. The Union Parliament passed the Patents, Trademarks, Designs, and Copyright Act, No. 9 of 1916, marking the beginning of modern copyright in South Africa.⁶⁶ The 1916 Act was a composite Act dealing with patents, designs, trademarks, and copyright. It dealt with copyright in Chapter 4 and the Third Schedule, which contained provisions perpetuating copyright in works in existence before 1917. These works were derived from earlier South African legislation, such as the Provincial Copyright Acts, the British Copyright Act of 1842, or Roman-Dutch common law.⁶⁷

In terms of section 147(1) of the 1916 Act, copyright subsisting in musical, dramatic, and artistic works subsisting in the United Kingdom before 1917 was recognized and conferred in South Africa.⁶⁸ This system perpetuated the copyright in works that had previously enjoyed copyright in South Africa under British legislation, the Provincial Copyright Acts, and the common law, as well as copyright in musical, dramatic, or artistic works that had only subsisted in the United Kingdom.⁶⁹ The Act of 1916 was repealed by the Copyright Act 63 of 1965, which came into force

⁶² NN Siphopho (2014) LLM at 16.

⁶³ *Idem.*

⁶⁴ *Idem*

⁶⁵ Klopper *et al Law of Intellectual Property In South Africa* 2nd ed (2016) 183.

⁶⁶ OH Dean 'The Application of the Copyright Act, 1978, to Works Made Prior to 1979' (1988) PhD thesis, University of Stellenbosch, at 236-237.

⁶⁷ *Idem.*

⁶⁸ NN Siphopho (2014) LLM 30.

⁶⁹ *Idem* 31.

on 11 September 1965. Although it is closely based on the British Copyright Act of 1956, the Act of 1965 did not declare the British Act of 1956 to be in force in South Africa but simply adopted substantial portions of the language of the British Act of 1956.⁷⁰

The 1965 Act repealed the 1916 Act in its entirety, including the Third Schedule, and dealt with existing works in Section 48, read together with the Sixth Schedule.⁷¹ The essential provisions of the 1916 Act, particularly those relating to the subsistence, duration, and ownership of copyright, were embodied in the 1965 Act, read together with the provisions of the Sixth Schedule.⁷² The Act of 1978, while showing some similarity to the British Copyright Act of 1956, has departed from the British Act in several material respects, resulting in the South African legislature taking an independent course in the field of copyright law.⁷³

The Copyright Act of 1916 was repealed by Copyright Act No 63 of 1965 after South Africa became a Republic in 1961.⁷⁴ The 1965 Act was based on the British Act of 1956, which repealed the British Act of 1911. The 1978 Copyright Act, influenced by British copyright legislation and the Berne Convention, is still in force today. The 1978 Act has undergone several amendments to form the current copyright law in South Africa, removing all previously applicable copyright legislation.⁷⁵

⁷⁰ OH Dean *Handbook of South African Copyright Law* 2ed (2006) 1-3.

⁷¹ *Idem* 1-3.

⁷² Klopper *et al* (2016) 185.

⁷³ *Idem*.

⁷⁴ Klopper *et al* (2016) 185.

⁷⁵ *Idem*.

2.5 The Copyright Act

2.5.1 *Types of Works That Are Protected by Copyright*

The Copyright Act was created to regulate copyright.⁷⁶ As indicated above, the British copyright laws have had a significant influence on the South African Copyright Act.⁷⁷

Subject to the provisions of the Copyright Act certain original works, including literary, musical, artistic, sound recordings, cinematograph films, broadcasts, programme-carrying signals, published editions, and computer programs are eligible for copyright.⁷⁸ Within each of these categories of works the definitions set out what are considered to be part of each category of , for example, ‘literary works’ include a) novels, stories, and poetical works; b) dramatic works, stage directions, cinematograph film scenarios, and broadcasting scripts; c) textbooks, treatises, histories, biographies, essays, and articles; d) encyclopaedias and dictionaries; e) letters, reports, and memoranda; j) lectures, addresses, and sermons; and g) written tables and compilations.⁷⁹ Musical works encompass both the song’s recording and the lyrics themselves, like literary works,

⁷⁶ Preamble to Copyright Act 98 of 1978 (hereafter the Copyright Act). At present the Copyright Amendment Bill [B 13F—2017] of 05 September 2023 has in its preamble the following purposes: “To amend the Copyright Act, 1978, so as to define certain words and expressions; to allow for further limitations and exceptions regarding the reproduction of copyright works; to provide for equitable remuneration or the sharing of royalties in copyright works; to provide for the payment of equitable remuneration or royalties in respect of literary, musical, artistic and audio-visual works; to provide for resale royalty rights; to provide for recordal and reporting of certain acts; to provide for the accreditation of collecting societies; to provide for a mechanism for settlement of disputes; to provide for access to copyright works by persons with a disability; to provide for the licensing of orphan works; to strengthen the powers and functions of the Copyright Tribunal; to provide for prohibited conduct in respect of technological protection measures; to provide for prohibited conduct in respect of copyright management information; to provide for protection of digital rights; to provide for certain new offences; and to provide for matters connected therewith.”

⁷⁷ Klopper *et al* (2016) 183.

⁷⁸ S2(1) Copyright Act.

⁷⁹ S1 definition for ‘literary works’ in the Copyright Act.

it may be protected by copyright.⁸⁰ Paintings, sculptures, sketches, photography, engravings, pottery, works of architecture, and artisanal creations are all examples of artistic works.⁸¹

Copyright applies to sound and television broadcasts, which are defined as the electromagnetic waves that make up the broadcast, rather than the content of the broadcast.⁸² The broadcast's audio material, such as the music, may be protected by copyright under a different category, such as sound recordings.⁸³

2.5.2 Ownership of Copyright

The Copyright Act specifies who is deemed to be the creator of a copyright-protected work. It is important to identify the author since the author has initial ownership of the copyright in a work because they are the first creators of the work.⁸⁴ To qualify for copyright protection, an author must be qualified. A qualified person, according to the Act, is:⁸⁵

- a) In the event of an individual, a person who is a South African citizen or who is domiciled or resident in the Republic of South Africa.
- b) A body incorporated under the laws of the Republic of South Africa in the case of a juristic person.

⁸⁰ S1 definition for 'musical works' in the Copyright Act includes any arrangement or transcription of the work, if such arrangement or transcription has an original, creative character.

⁸¹ S1 definition for 'artistic works' in the Copyright Act includes a) paintings, sculptures, drawings, engravings, and photographs; and b) works of architecture, being either buildings or models of buildings; or works of artistic craftsmanship.

⁸² S1 definition for 'broadcast' in the Copyright Act.

⁸³ S9 Copyright Act.

⁸⁴ S21(1(a) Copyright Act.

⁸⁵ S3(1) *id.*

It should be noted that the owner of the work is not the same as the author.⁸⁶ The author is generally the original owner of the work, however, if an author assigns his copyright to another person, such as a publisher, they no longer own that work.⁸⁷ This implies they no longer own the copyright in that work and cannot use it again without the consent of the copyright owner.⁸⁸

Similarly, if someone has created a work in the course and scope of employment, the employer acquires ownership of the work at the end of his employment, as was illustrated in the case of *King v South African Weather Service*.⁸⁹ In this case, *King* worked for the *South African Weather Service (SAWS)* for several years. He began as a meteorological technician and subsequently became the manager of the Weather Bureau's Upington office.⁹⁰

Between 1980 and 2002, *King* developed a variety of weather computer programs.⁹¹ He believed that the programs were generated on his own time, at his own house, and that their production was not required as part of his contract of employment because they were created to aid him in the fulfilment of his employee obligations.⁹² SAWS made substantial use of the programs he designed when *King's* contract was cancelled, he then requested that SAWS discontinue his applications because programs were not generated in the course and scope of his work, ownership of the copyright in the programs belonged to him rather than his company.⁹³ He then filed a lawsuit for copyright infringement; the court was divided on whether the computer programs were produced during *King's* employment since both sides claimed ownership of the programs.⁹⁴

The court ruled that SAWS owned the copyright to the computer programs since they were produced during his employment with the institution.⁹⁵ In reaching its ruling, the court acknowledged that "...one would not ordinarily include computer programming as part of the

⁸⁶ Klopper *et al* (2016) 225.

⁸⁷ *Idem* 253.

⁸⁸ *Idem*.

⁸⁹ *King v South African Weather Service 2009 (3) SA 13 (SCA)*.

⁹⁰ *Idem* par 2.

⁹¹ *Idem* par 4.

⁹² *Idem* par 4

⁹³ *King v South African Weather Service* par 19

⁹⁴ *Idem* par 19.

⁹⁵ *Idem* par 19.

duties of a meteorologist...”, but added that this was not the entire picture.⁹⁶ As a meteorologist, King was responsible for gathering and collating meteorological data and transmitting it to headquarters for analysis and storage.⁹⁷ He created his programs for this very reason, he did it to make his work simpler, but he also did it for the Bureau's benefit.⁹⁸ The court determined that there was a “...close causal relationship between his employment and the creation of the programs.” In other words, his job constituted the program's cause.⁹⁹

Several people may collaborate to create a particular work, which may raise the problem of shared ownership. This was demonstrated in *Peter-Ross v Ramesar and Another*.¹⁰⁰ In this case, the court had to decide who owned the copyright to a research article produced by two University of Cape Town lecturers. Peter Ross and Ramesar collaborated on a concept that included bipolar diseases. In 2004, Peter Ross wrote an original essay in which both professors being credited as authors. Two years later, Peter Ross notified Ramesar that she had authored and submitted the manuscript to Molecular Psychiatry for publication and that she (Peter-Ross) was credited as the article's only author.¹⁰¹ Ramesar then told the publication that he was a co-author of the publication, and the publisher halted it.¹⁰²

Peter-Ross then sought a declaratory order stating that she was the only owner of the article's copyright, which Ramesar contested.¹⁰³ The court then held that “...[T]here are several cases in

⁹⁶ *Idem* par 19.

⁹⁷ *Idem* par 20

⁹⁸ *Idem* par 20.

⁹⁹ *King v South African Weather Service* par 20. For criticism of this decision see H Klopper “Copyright in Works Produced in the Course of Employment: *King vs. SA Weather Service* (2009 3 SA 13 (SCA) 2010”. The article asserts that the court did not fully appreciate the significance of the employer’s control and direction in the creation of the work. It is argued that control by the employer, including the right to decide how and when the work is done, is essential in determining whether a work was created “in the course of employment.

¹⁰⁰ *Peter-Ross v Ramesar and Another* (2008) (4) SA 168 (C).

¹⁰¹ D Oliver “Academic Wranglings: Copyright in Collaborative Works Of A Scientific Nature” (2008) available at <https://afro-ip.blogspot.com/2008/08/academic-wranglings-copyright-in.html> (accessed 19 July 2023).

¹⁰² *Idem*.

¹⁰³ *Idem*.

which it would be imprudent to focus just on contributions to the physical representation of the work. One example is when two people agree to do research and co-author an essay. If the essay is about science, the concepts are more essential to the collaborators. There appears to be no reason why they should not be recognized as having jointly "made" or "created" the draft if they investigate and agree on the ideas to be documented and it is left to one of them to make a draft.”¹⁰⁴ The court continued to state that “...[I]f it is accepted that the draft is a "literary work" and the reproduced text in the Article is simply a copying of it, it is sufficient to preserve the first respondent's [Ramesar] status as co-author of the reproduced text....the Article was the end product of the collaboration to which the parties had agreed.”¹⁰⁵ As a result, the two authors were regarded as co-authors of the article eventually published by Peter Ross.¹⁰⁶

2.5.3 Requirements for The Subsistence of Copyright in A Work

The Act makes no provision for any type of registration for the preservation of copyright.¹⁰⁷ This means that copyright emerges automatically once the requirements for subsistence have been met.¹⁰⁸ To enjoy the benefits of copyright, a work must fulfil two broad requirements: first, there must be sufficient effort or skill expended on making the work to give it a new and original character, and it must also be converted to material form.¹⁰⁹

Originality requires that the work not be copied from another work and must have originated with the creator.¹¹⁰ The work does not have to be developed from scratch, and a person may take inspiration from prior works as long as they apply their expertise and labour to construct the

¹⁰⁴ *Peter-Ross v Ramesar and Another* par 18.

¹⁰⁵ *Idem* par 19.

¹⁰⁶ D Oliver (2008).

¹⁰⁷ Adams and Adams “South Africa: How To Copyright Your Work” (2020) available at <https://www.mondaq.com/southafrica/copyright/1013948/how-to-copyright-your-work> (accessed 19 July 2023).

¹⁰⁸ Klopper *et al* (2016) 203.

¹⁰⁹ S2(2) Copyright Act.

¹¹⁰ Klopper *et al* (2016) 203-204.

work.¹¹¹ This means that copying from another person's work is permissible to a certain extent, and one may use the work of another as inspiration to create new work, as long as the final product is produced through "...the author's (own) skill and labour, and the author is not simply taking the labour of another and passing it off as his or her own."¹¹²

This principle was pointed out in *Klep Valves (Pty) Ltd v Saunders Valve Co Ltd*¹¹³ where the court stated that "...the criterion that a work be original and not copied should not be construed to suggest that a work will be considered original solely if it is created without reference to existing subject matter. If this were the case, many works would be denied copyright protection. It is quite conceivable for an author to incorporate existing material and yet achieve uniqueness in his work. In such a case, the work must be more than a slavish duplicate; it must be owed in part to the author's own talent or labour."¹¹⁴

As illustrated above, if an individual just copies another person's work, they are not creating a work that is protected by copyright and are likely to be guilty of copyright infringement. Even if a person utilises someone else's work to create their work, if they put in enough skill and labour, they will be entitled to copyright protection for the work they create. The amount of skill and labour that is required depends on the facts of each case.¹¹⁵

The work must not only be original, but it also must be present in a material form.¹¹⁶ A work does not exist for copyright purposes until it is converted to a material form.¹¹⁷ Simply put, there can be no copyright in a work while it is still in the author's mind, but copyright can vest once the work has been reduced to the required form.

¹¹¹ *Haup t/a Softcopy v Brewers Marketing Intelligence (Pty) Ltd* 2006 (4) SA 458 (SCA).

¹¹² T Woker *Principles of Copyright in Intellectual Property Law: An Overview* (2010) 40.

¹¹³ *Klep Valves (Pty) Ltd v Saunders Valve Co Ltd* 1987 2 SA 1 (A).

¹¹⁴ *Klep Valves (Pty) Ltd v Saunders Valve Co Ltd* par 27-28.

¹¹⁵ Klopper *et al* (2016) 207

¹¹⁶ *Idem* 209

¹¹⁷ *Idem* 208.

2.5.4 *Duration of Copyright*

A work's copyright protection lasts 50 years from the end of the year in which the author died for literary, musical, and artistic works, or 50 years from the date the work was published, performed, or transmitted for other works. If a literary, musical, or creative work is first published, performed, televised, or offered for sale after the author's death, the copyright lasts for 50 years from that point.¹¹⁸

2.5.5 *Use of A Work Subject To Copyright*

It is prohibited for anybody to perform any of the following without the author's permission for a literary work once the work has been copyright protected.¹¹⁹

- a) Reproduce the work;
- b) Publish the work if it has not been published before;
- c) Perform the work in public;
- d) Broadcast the work;
- e) Adapt the work; or
- f) Cause the work to be transmitted in a diffusion service.

This means that to utilise a work protected by copyright, the user must first obtain authorization to do so.¹²⁰ Authorization may imply the granting of a licence to use the work or the assignment of copyright to that specific person.¹²¹

Obtaining permission to use a work may also require the payment of royalties, which may make using that work prohibitively expensive, even if a work is available on the internet or at a library, a person does not have the right to simply make a copy of it.¹²² Unless the usage fits under one of

¹¹⁸ S3 Copyright Act.

¹¹⁹ S6(a)-(f) and S7-9 *Id.*

¹²⁰ Klopper *et al* (2016) 255.

¹²¹ S22 Copyright Act.

¹²² *Idem*

the recognized defences, such as fair use or fair dealing, as it is known in South Africa, this might amount to copyright infringement.¹²³

The question of utilising someone else's work is essential to the subject of copyright protection, as well as the issue of this dissertation. When creators produce their works, they expect their works to generate revenue for them and support their creativity. However, when their works are being pirated online, the question is if the copyright legislation and the courts alone are enough to provide the necessary protection from illegal reproduction or use?

2.5.6 Fair Dealing

In South African law, there are a limited number of exceptions for copyrighted works, specifically those for research, personal study, criticism, review, and reporting current events provided in sections 12-19B of the Act.¹²⁴ These exceptions act as a defence against conduct that would constitute copyright infringement. If there is no copyright infringement, the exceptions are not considered.¹²⁵

The header "[G]eneral exceptions from protection of literary and musical works" refers to the fair-dealing rule. The court determines whether a defendant can rely on these exceptions by determining whether the use was for the exempted purpose and if it was fair.¹²⁶ The list of exempted purposes is exhaustive, and the court determines whether a particular use is fair objectively.¹²⁷

The determination of fairness depends on the facts or circumstances at the time of dealing.¹²⁸ It can be concluded that whenever a person pirates a work, they are generally not using it fairly.

¹²³ S12 Copyright Act.

¹²⁴ S Karjiker "Should South Africa Adopt Fair Use? Cutting Through The Rhetoric" (2021) THRHR 1.

¹²⁵ S Karjiker (2021) 1.

¹²⁶ *Idem.*

¹²⁷ *Idem.*

¹²⁸ *Idem.*

Given the low cost of copying today and the resulting high rates of piracy, the level of alteration necessary to be eligible for fair dealing ought to be determined and increased, not decreased.¹²⁹

With South Africa trying to change our current Act, the Copyright Amendment Bill B13B-2017 plans to introduce fair use, which is used in the US, into our problematic legal system.¹³⁰ It is problematic because it is a flexible approach to potential copyright protection exceptions meaning that it would come with a price of uncertainty, no assurance as to what kind of usage may be allowed. "Every case depends on its unique facts... [which] makes its likelihood of success difficult to predict in particular cases."¹³¹

As stated by Lessig "In America, "fair use" essentially refers to the ability to retain legal counsel to protect your creative expression. Furthermore, our system for upholding rights like fair use is dreadfully flawed in almost every situation, however particularly in this one, as attorneys seem to forget. It is very expensive, provides results too slowly, and frequently offers nothing in the way of the justice that underlies the claim. For the exceedingly wealthy, the judicial system may be bearable. It is an embarrassment to everyone else and a tradition that takes pride in upholding the law."¹³²

2.5.7 Penalties and Offences

Currently, A fine of no more than R10,000 or a sentence of no more than five years in jail may be imposed, under s. 27(6)(b) of the Act, for each article that has been copied.¹³³ As per s27(6)(a), in the event of a first-time conviction, the court has the authority to impose a maximum fine of R5,000 or a maximum sentence of three years' imprisonment for each item related to the offense.¹³⁴

¹²⁹ TR Beard, and GS Ford and, ML Stern, "Fair Use in the Digital Age" (2016). Phoenix Center Policy Paper Number 51.

¹³⁰ S Karjiker (2021) 1-2.

¹³¹ *Idem.*

¹³² L Lessig "Free Culture: The Nature and Future of Creativity" (2004) 207.

¹³³ S27 Copyright Act.

¹³⁴ *Idem.*

The court may also mandate the seizure, confiscation, forfeiture, or destruction of all copies that violate the law, together with any related machinery or gadgets.¹³⁵

2.6 Summation

From a modern perspective, copyright laws date back a long time before modern technology, and when looking at the advancements that technology has made to date, there is a need to consider whether the law meets the needs of creators in protecting their works from infringement. The next chapter will therefore focus on how the digital age has brought about significant changes in information availability and accessibility through digital technology. The importance of copyright protection in the digital age is emphasised due to the ease of copying and distributing digital works. It will look at the impact of technology on how copyright is protected and the increased need for copyright protection in this digital age.

¹³⁵ *Idem.*

CHAPTER 3: THE IMPACT OF DIGITAL TECHNOLOGIES ON COPYRIGHT AND THE PROTECTION OF COPYRIGHT IN THE DIGITAL AGE

3.1 Introduction

In the previous chapter a comprehensive overview of copyright law and its historical development in South Africa was provided. The chapter highlighted the challenges of copyright infringement in the South African market, particularly with unauthorised works being distributed digitally.¹³⁶ Additionally, the chapter discussed the international agreements that form the basis for copyright law in South Africa, notably the Berne Convention and the Agreement on Trade-Related Aspects of Intellectual Property Rights.¹³⁷ This chapter now turns to the impact of digital technology on copyright, looks at the protection of copyright in the digital age and the reasons as to why we need to protect digital copyright, and provides a few important theories that justify the need for digital copyright protection.

Digital technology has significantly impacted societal advancement by improving information availability and accessibility. It promotes access to e-resources for academic, research, and leisure purposes, enabling simultaneous use of online materials by multiple users and encouraging remote search link capacity.¹³⁸ This technology eliminates territorial and geographical boundaries when accessing information.¹³⁹ The digital age has had a profound impact on copyright law and the protection of copyright-protected works, exposing copyright holders to new challenges such as unauthorised uploads and distribution of their works without the necessary licence or a lawful justification.¹⁴⁰

Digital technologies have made it easier than ever to distribute and copy copyright-protected works, both legally and illegally.¹⁴¹ This has led to several challenges for copyright holders, who

¹³⁶ See Chapter 2 above.

¹³⁷ *Idem*.

¹³⁸ A Albert & O Nosakhare (2022) 2

¹³⁹ *Idem*.

¹⁴⁰ *Idem*, s12 Copyright Act.

¹⁴¹ A Albert & O Nosakhare (2022) 2

are struggling to protect their intellectual property in the digital world.¹⁴² South African copyright law may be outdated, therefore there is a need to ensure that copyright law keeps pace with how fast technology is advancing, new forms of expression, and new methods of infringement.¹⁴³

3.2 The Digital Age and its Characteristics

The 'digital age' also referred to as the 'information age', is characterised by a shift from the traditional industries brought about by the Industrial Revolution to an economy focused on information technology and the integration of digital technology into various aspects of human society.¹⁴⁴ It is a period where personal computers and other technology allow users to easily interact with the world around them.¹⁴⁵

The digital age has several characteristics that have revolutionised almost every aspect of modern life. To name a few, the digital age has created ubiquitous connectivity, the proliferation of the internet and the ability to connect to it from any part of the world have led to an interconnected global society, making it possible to communicate instantly and share information across vast distances.¹⁴⁶ The digital age has also made it possible to digitise information, which is now stored, processed, and transmitted in digital formats, making it more accessible and easily searchable.¹⁴⁷

¹⁴² LLYC “Intellectual Property Faces the Challenge Of A Digital World” (2021) available at <https://www.provokemedia.com/agency-playbook/sponsored/article/intellectual-property-faces-the-challenge-of-a-digital-world> (accessed 19 July 2023).

¹⁴³ S Papadopoulos , S Snail ka Mtuze “Cyberlaw@SA: The Law of the Internet in South Africa 4th ed” (2022) Chapter 8 at 181-254.

¹⁴⁴ A Albert & O Nosakhare (2022) 7.

¹⁴⁵ *Idem*.

¹⁴⁶ StudySmarter “Digital Age” (2023) available at <https://www.studysmarter.co.uk/explanations/social-studies/social-institutions/digital-age/> (accessed 20 July 2023).

¹⁴⁷ *Idem*.

It should, however, be noted that the digital age is not only characterised by positive attributes; it also has other characteristics that have a negative impact generally and on copyright holders. To name a few, the digital age has brought about cybersecurity concerns.¹⁴⁸

Cybercriminals are constantly finding new ways to exploit computer systems and networks, they then steal valuable information and data from victims.¹⁴⁹ The digital age has also brought about difficulties in protecting works that are subject to copyright protection due to works being distributed and pirated freely, which is the issue that is being discussed by this dissertation, and to many individuals online, which makes it difficult to monitor infringers.¹⁵⁰ The dissertation will focus more on the issue of piracy in Chapter 4.

3.2.1 The Effects Of Digitization On How Works Are Used

The transition from analogue to digital altered both the production and consumption which contributed to the ease with which replications can be made.¹⁵¹ Unlike analogue copies, digital copies are reproduced without the quality of the work lowering meaning that every digital duplicate is ideal in and of itself, and perfect copies can be made from others endlessly.¹⁵²

Analogue copies often entail a laborious procedure using pricey hardware such as disk-to-disk copying, screen scrapers, and CD burners.¹⁵³ The simplicity with which digital works can be altered, using methods such as sound and image editing tools, is another characteristic of

¹⁴⁸ *Idem.*

¹⁴⁹ Interpol “African Cyberthreat Assessment Report Cyberthreat Trends” (2023) 3 available at https://www.interpol.int/content/download/19174/file/2023_03%20CYBER_African%20Cyberthreat%20Assessment%20Report%202022_EN.pdf (accessed 19 July 2023).

¹⁵⁰ T Pistorius & O.S Mwim “The Impact of Digital Copyright Law And Policy On Access To Knowledge And Learning” (2019) *Reading & Writing* 10(1), a196. <https://doi.org/10.4102/rw.v10i1.196> at 1.

¹⁵¹ *Idem.*

¹⁵² E Fleischmann ‘The Impact of Digital Technology on Copyright Law’ (1988) 70 *Journal of Patent and Trademark Office* 5-6.

¹⁵³ *Idem.*

digitalisation and because the alterations can be done in infinite ways, their quality is still maintained, making them suitable for remastering, distribution and creating a combined new type of work.¹⁵⁴

This combination of different types of works can then contain different sensory experiences which can now have different new uses. What were formerly regarded to be distinct kinds of works can now be easily joined thanks to the equivalency of works in digital form, and these newly integrated works defy simple classification.¹⁵⁵ The effects of digitizing works are as follows: it creates a homogeneous medium for storing and transmitting works; it combines previously distinct classes of work into multimedia products; it becomes difficult to classify multimedia products; it becomes challenging to determine exclusive rights for each category of work when, for example, a computer program, a literary work, and a previously distinct musical work are combined in a multimedia work; and modification of the conventional usage of copyright works by networking and digitization.¹⁵⁶

The bottom line is that the process of digitisation poses a challenge to established notions of copyright law, including the division of works into distinct classes. Works in multimedia defy categorization.¹⁵⁷ Unprecedented challenges to copyright law arise from the continuous transmission of digital works and the simplicity with which they may be replicated. Furthermore, the increasing availability of digital works via the Internet has resulted in a rise in the unapproved dissemination and sharing of copyrighted content.¹⁵⁸ This has sparked questions about how intellectual property rights are protected in the digital era and how copyright rules are enforced. Furthermore, as technology develops, new issues about ownership and authorship of creative works are raised by developments like artificial intelligence and machine learning, which pose challenges to copyright law.

¹⁵⁴ M Jansen “The Protection of Copyright Works on the Internet — an Overview.” (2005) *The Comparative and International Law Journal of Southern Africa* 347.

¹⁵⁵ DP Van der Merwe et al “Information and Communications Technology Law” (2021) *LexisNexis* 297.

¹⁵⁶ *Idem.*

¹⁵⁷ T Pistorius & O.S Mwim (2019) 1.

¹⁵⁸ *Idem.*

3.2.2 *The Effects Of Digitization On The Enforcement Of Rights*

The international treaties are based on the idea that copyright has territorial application. In spite of international accords, country laws, enforcement practices, and cultural attitudes regarding intellectual property vary widely.¹⁵⁹ Additionally, various nations may have differing interpretations of basic legal ideas. However, information networks are international in scope, and national boundaries are dissolving.¹⁶⁰

Therefore, dealing with copyright infringement in cyberspace requires a different approach than the previous methods. Thus, authors must deal with the challenges of both identifying infringement and enforcing their rights once they have been violated.¹⁶¹ Determining infringers, deciding jurisdiction, and determining the appropriate legislation against infringers are the three key issues that arise in this situation.

a. Determining Infringers

The issue of who should be held liable for copyright infringement in the digital environment is complex due to the use of home equipment, such as personal computers, for such infringements. Privacy considerations and the anonymity of cyberspace make it difficult to detect and prove infringement.¹⁶² As a result, there could be many infringers due to one infringing work posted online due to the difficulty in identifying and physically locating the accused violator, as well as the difficulty in holding each individual infringer liable. As explained by Weiskopf “*Uploading a picture to a website can lead to numerous visitors, potentially infringing on the copyright owner's exclusive rights. This can result in hundreds, thousands, or even millions of infringers. However, imposing liability on these visitors may be difficult due to their anonymity in cyberspace and the*

¹⁵⁹ M Jansen (2005) 347.

¹⁶⁰ *Idem.*

¹⁶¹ M Jansen (2005) 346.

¹⁶² S Morolong “Online Defamation: The Problem Of Unmasking Anonymous Online Critics” (2006) University of Botswana Law Journal Vol. 3, No. 06 37.

*difficulty in physically locating the accused violator, even if they can be identified through their "cyberspace address."*¹⁶³

b. Determining Jurisdiction

The Berne Convention lacks a jurisdiction rule for copyright infringement, making it difficult to determine jurisdiction and choice of law in cases involving foreign elements.¹⁶⁴ The digital world, unlike traditional geographic borders, has no jurisdiction for unauthorised reproduction, adaptation, and dissemination.¹⁶⁵ This can make infringement actions difficult, and the cost of litigation in different legal systems may deter authors from participating in electronic marketplaces.¹⁶⁶

c. Determining The Appropriate Legislation Against Infringers

Article 5.1 of the Berne Convention states that each member country must grant foreign authors the same rights as national authors.¹⁶⁷ However, this does not address the issue of which law should be applied when protection is sought for a country or author from a non-member country.¹⁶⁸ Article 5.2 is a choice-of-law rule, leading to the application of the law of the member country for which protection is claimed, however, online global information networks allow transmission and access

¹⁶³ DN Weiskopf "The Risks of Copyright Infringement on the Internet: A Practitioner's Guide," (1998) Vol. 33: Iss. 1 University of San Francisco Law Review 6.

¹⁶⁴ R Xalabarder "Copyright: Choice of Law and Jurisdiction in the Digital Age" (2002) 8 Annual Survey of International and Comparative Law 88.

¹⁶⁵ R Polčák "Territoriality of Copyright Law" (2020) available at https://link.springer.com/chapter/10.1007/978-3-030-44850-9_4 (accessed 20 July 2023).

¹⁶⁶ *Idem* .

¹⁶⁷ Xalabarder (2002) 81-82.

¹⁶⁸ *Idem* 82

from servers in numerous countries, making it difficult to determine the applicable law for infringements occurring in multiple countries simultaneously.¹⁶⁹

Copyright legislation is predominantly a national affair, with many variations in national copyright laws. Hence, the advent of global information networks has made these differences more pronounced, and the existing conflict-of-law rules are inadequate to determine the applicable law in disputes arising in cyberspace, leading to uncertainty about which national copyright rules should be applied.¹⁷⁰

3.3 The Nature of Digital Copyright and Its Mode of Distribution

Digital technology has revolutionised the distribution of works, allowing them to be delivered through digital transmission.¹⁷¹ This process began with specialised data services, followed by commercial online services, and is now the most widespread transmission mechanism like the internet.¹⁷² Digital transmission allows for the transfer of works to individuals, allowing them to be sent from one individual to another, select groups, or the public at large.¹⁷³

Digital transmission is interactive, reducing delays between the creation, publication, and availability of works, and with compression of files allows them to be downloaded faster, making wide distribution more possible.¹⁷⁴ Digital transmission services benefit not only users but also authors, providing new ways to distribute and market and allowing creators to hold online exhibitions to bypass traditional marketing channels by posting copies of their works on the

¹⁶⁹ *Idem* 82-83.

¹⁷⁰ *Idem* 84.

¹⁷¹ M Jansen (2005) 347.

¹⁷² *Idem*.

¹⁷³ *Idem* 347.

¹⁷⁴ *Idem*.

internet for sale or free distribution.¹⁷⁵ Digital technology also creates new ways for users to use and enjoy works, providing inexpensive and widespread access to large numbers of works from various devices at locations of their choice.¹⁷⁶

3.4 Why We Still Need Copyright Protection In The Digital Age

Copyright-protected works are commodities that are disseminated for a fee, in a controlled manner, in the exercise of an author's substantive rights, to meet existing demand.¹⁷⁷ The creative industry has expanded due to the increased use of the internet.¹⁷⁸ As of 2023, it is estimated that over three billion internet users of any age watched streaming or downloaded video via any device at least once per month.¹⁷⁹ In the digital age, copyright protection is more important than ever before. With the ease of copying and distributing digital works, it is easier for people to steal creative works without repercussions.¹⁸⁰

This can have a devastating impact on creators, who may not be able to earn a living from their work. Copyright protection helps to deter copyright infringement and ensure that creators are compensated for their work.¹⁸¹ Furthermore, it should be noted that your work is your asset, which

¹⁷⁵ YK Dwivedi *et al* "Setting The Future Of Digital And Social Media Marketing Research: Perspectives And Research Propositions" (2021) available at <https://www.sciencedirect.com/science/article/pii/S0268401220308082> (accessed 20 July 2023).

¹⁷⁶ M Jansen (2005) 347.

¹⁷⁷ OH Dean "Reconstituting the Copyright Amendment Bill" (2021) available at Reconstituting the Copyright Amendment Bill | CIP - The Anton Mostert Chair of Intellectual Property (sun.ac.za) (accessed 20 July 2023).

¹⁷⁸ Statista "Number Of Digital Video Viewers Worldwide From 2019 to 2023" (2021) available at <https://www.statista.com/statistics/1061017/digital-video-viewers-number-worldwide/#:~:text=In%202021%2C%20data%20on%20global,billion%20by%20the%20year%202023> (accessed 20 July 2023).

¹⁷⁹ *Idem*.

¹⁸⁰ E Çıtak "Robin Hood of the Internet or the apocalypse of an industry" (2023) available at <https://dataconomy.com/2023/06/14/what-is-digital-piracy-effects-on-creativity-industry/> (accessed 20 July 2023).

¹⁸¹ E Fleischmann (1987) 5.

may wind up being quite valuable in the future.¹⁸² There is also the concept of copyrights as a legacy, as they can be passed down as part of an estate, as stated in section 22 of the Act.¹⁸³

As shown above, the two basic objectives of copyright protection are to compensate creators to motivate them to generate more work and to allow them to recoup the costs of generating such work.¹⁸⁴ The logic behind this, as expressed by Boyle, is that when an author creates a book, he or she invests time and energy into creating it, so he is entitled to be rewarded for his or her work and protection from infringement.¹⁸⁵ The moral right of integrity, natural rights theory and economic theory are what underlie the justifications for copyright protection even in the digital age.

3.4.1 *Natural Rights Theory*

The natural rights doctrine holds that a creator of a work is entitled to the rewards of his labour, and copyright legislation exists to safeguard the author against unauthorised interference with his rights.¹⁸⁶ The creator should be protected from the expropriation of this property by others who have not invested in it. For instance, according to this theory, a book or a sound recording of a song belongs to an author because he or she made it, not because society or the law grants them exclusivity.¹⁸⁷

This doctrine is vastly criticised and one argument against this doctrine states that not all of the value of the protected work is due to the author's labour, nor the value of the protection is due to the work of the author alone, which is the reason why copyright is a social product because creativity does not occur in a vacuum.¹⁸⁸ This essentially means that if an author writes a book or

¹⁸² British Library "Three Reasons for Copyright Protection" (2021) available at <https://www.bl.uk/business-and-ip-centre/articles/three-reasons-for-copyright-protection> (accessed 20 July 2023).

¹⁸³ *Idem*, s22 Copyright Act.

¹⁸⁴ NN Siphepho (2014) LLM 26.

¹⁸⁵ J Boyle " *The Public Domain*" (2008) 3.

¹⁸⁶ NN Siphepho (2014) LLM 26.

¹⁸⁷ *Idem*.

¹⁸⁸ B Martin " *Martin Information Liberation*" (1998) 37.

creates a cinematograph film, it would have not been possible for the work to be created without the works of other people including teachers and parents, and also earlier authors who provided the foundation.

This idea seems preposterous because it would lead to creators not having the courage to produce works because of the fundamentals of life. A teacher can teach a person and communicate his or her thoughts, everyone is free to utilise them as they see fit: to comprehend or misunderstand them, to be inspired by them, to critique and criticise them, and so on.¹⁸⁹

3.4.2 *Economic Theory*

The economic basis for copyright is based on the idea that this protection incentivizes authors to create new works.¹⁹⁰ When individuals are granted property rights over what they have created, they are incentivized to spend the money and effort necessary to invent new items or develop new ideas.¹⁹¹ The argument says that if intellectual property rights are repealed, there will be no incentive to create intellectual products since anyone will be able to replicate the creation without compensating the creator. Put simply, if competitors can copy books, and movies, and steal one another's ideas, there will be less motivation to invest the enormous amounts of time, money, and energy required to generate their work.¹⁹²

The logic behind this essentially states that if authors do not have a monopoly over their works, they will not benefit monetarily and will hence be discouraged from producing other works.¹⁹³ Thus the goal of copyright law is to ensure that authors receive a fair return on their investment,

¹⁸⁹ M Borghi “Owning Form, Sharing Content: Natural-Right Copyright and Digital Environment” (2006) 9 available at https://escholarship.org/content/qt85w265rc/qt85w265rc_noSplash_77485c0b2907068ac66ef0d05d85c95d.pdf (accessed 21 July 2023).

¹⁹⁰ NN Siphepho (2014) LLM 28.

¹⁹¹ NN Siphepho (2014) LLM 28.

¹⁹² *Idem.*

¹⁹³ H Demsetz “Information and Efficiency: Another Viewpoint” (1969) 12 (1) J.L.& Econ. 14.

encouraging them to develop additional creative works for the public good. In this approach, copyright rules encourage authorship and the creation of more works that benefit society.¹⁹⁴

This theory gained favour in the United States and is duly established by Article 1, section 8 of the United States Copyright and Patents clause of the US Constitution 1789 (as amended) which states "... to promote the progress of science and useful arts, by securing to authors and inventors the exclusive right to their respective writings and discoveries for limited times."¹⁹⁵

This doctrine is also criticised and those who criticise it contend that there are alternative, superior ways to accomplish the same progress without depending on copyright protection.¹⁹⁶ It is argued that these questions should be asked: do copyright restrictions limit or increase the availability and usage of intellectual products? If they do, it's crucial to examine if this results in greater availability and utilisation of intellectual property than any other technique. Could a shorter copyright, for instance, lead to better overall results? Thus, there is no economic reason for extending copyright protection, and as a result, the justification is weak.¹⁹⁷

However, in agreement with economic theory and scholars, without giving creators a monopoly over their works authors won't produce copyright works (or produce them in insufficient quantities) in the absence of copyright protection, or at least not in sufficient numbers.¹⁹⁸ The ease with which others might profit from authors' labour at their expense is the reason why authors are reluctant to produce such works and the reason why they should benefit financially from their creation.¹⁹⁹

¹⁹⁴ *Idem.*

¹⁹⁵ VC Onyeagbako "Justification for Copyright and Patents protection" 2022 *My Intellectual Property Law Guide (MIPLG)* 8.

¹⁹⁶ NN Siphepho (2014) LLM 29.

¹⁹⁷ *Idem.*

¹⁹⁸ S Karjiker "Justifications for Copyright: The Economic Justification" (2014) available at <https://blogs.sun.ac.za/iplaw/files/2016/04/Sadulla-Karjiker-Justifications-for-copyright-the-economic-justification.pdf> (accessed 22 July 2023).

¹⁹⁹ S Karjiker (2014).

3.4.3 Moral Rights

As recognised in the Berne Convention,²⁰⁰ authors possess moral rights in their works independent from their economic rights and even after they have transferred their economic rights.²⁰¹ The right to attribution and the right to integrity are two main moral rights which can easily be violated by digital technology as will be explained below. These rights in South Africa are provided for in section 20(1) of the Copyrights Act.²⁰²

The moral right to attribution is the right to claim authorship of a work. The right of attribution in works created or converted to digital formats is in danger due to how easily they can be altered by, for example, removing the author's credentials before transmitting it to the internet.²⁰³ The moral right to integrity on the other hand is the ability to protest any distorting, mutilating, or other altering of a work where doing so would be detrimental to the author's honour or reputation, as expressed in the Berne Convention.²⁰⁴

Digital work creation or conversion can infringe on the author's right to integrity.²⁰⁵ Digital work can be manipulated in various ways, but this can erode the author's right to preserve the work's integrity.²⁰⁶ As seen from the information above, once distributed on the internet, anyone can resize, colour, or manipulate copies, making it difficult for authors to object to derogatory treatment of their work. Authors also face difficulties in identifying unauthorised insertions or deletions from their work, as they may struggle to exercise their moral rights in the face of widespread internet distribution.

²⁰⁰ Article 6bis (1) of the Berne Convention.

²⁰¹ OH Dean "Protection of the author's moral rights in South Africa" (1995) 7 *Merc LJ* 74.

²⁰² *Idem*, Section 20 (1).

²⁰³ A Kumar "Changing Dimension of Moral Rights Under Digital Environment" (2017) v 9 Issue 1 *Dehradun Law Review* 47.

²⁰⁴ Article 6 bis (1) of the Berne Convention.

²⁰⁵ M Jansen (2005) 344.

²⁰⁶ A Kumar (2017) 44.

3.5 Summation

The digital age has brought about significant changes in information availability and accessibility through digital technology. As stated above, copyright holders face the issue of unauthorised distribution of their works in the digital realm. The importance of copyright protection in the digital age is emphasised due to the ease of copying and distributing digital works. The two primary objectives of copyright protection are compensation for creators and recouping costs.

As shown above, there are two key theories underlying copyright protection: the natural right theory and the economic theory. The natural rights theory asserts that creators are entitled to the rewards of their labour and copyright protects against unauthorized interference with those rights. The economic theory contends that copyright incentivizes authors to create new works by granting them property rights. It argues that without copyright protection, creators would lack the motivation to invest in new works. Critiques of economic theory are presented, focusing on questions about the impact of copyright on the availability and usage of intellectual products. The counterargument against extending copyright protection purely for economic reasons is acknowledged, it is maintained that copyright protection is vital for incentivizing creators in the digital age.

CHAPTER 4: DIGITAL PIRACY

4.1 Introduction

As shown above, the world has evolved tremendously ever since the internet was introduced in the 1980s.²⁰⁷ Improved internet connections and computing technologies have increased global connectivity, but the copyright industry faces a persistent issue: digital piracy.²⁰⁸ Since other digital works are available for free on the internet, it can be presumed that only those copyright-protected works offered for a fee through access-controlled websites are subject to online piracy.²⁰⁹ This chapter will look at digital piracy, looking at its history, and the forms of piracy that we have.

Privacy or Pirate are words that are absent in any regulatory documents such as the South African Copyright Act of 1978, Statute of Anne, the 1886 Berne Convention for the Protection of Literary and Artistic Works, the United Kingdom and United States Copyright, Design, and Patents Acts.²¹⁰ Hence, to be able to define digital piracy, we must look at how scholars have defined it. Sulaiman Al-Rafee and Timothy Paul Cronan have defined the term as the illegal copying or downloading of copyright-protected media files and software, including movies, music albums, eBooks, and video games.²¹¹

²⁰⁷ C McLean “Who Invented the Internet? Everything You Need To Know About The History Of The Internet” (2023) <https://www.usatoday.com/story/tech/2022/08/28/when-was-internet-created-who-invented-it/10268999002/> (accessed 22 July 2023).

²⁰⁸ R Meireles “Digital Piracy: Factors that Influence the Intention to Pirate” (2015) Masters dissertation in Economics and Business Administration, University of Porto 6.

²⁰⁹ MW Mathini (2017) LLM 24.

²¹⁰ S Mirgham “The War On Piracy: Analysing The Discursive Battles Of Corporate And Government-Sponsored Anti-Piracy Media Campaigns.” (2012) *Critical Studies in Media Communication* 117.

²¹¹ S Al-Rafee & T Cronan “Digital Piracy: Factors that Influence Attitude Toward Behavior” (2006) Vol. 63 No. 3 *Journal of Business Ethics* 237.

4.2 The Evolution of Digital Piracy

As established above works that are digitised should also be afforded the same level of protection as any physical copies of the same work. However, the internet has made simple and easily accessible ways of infringing on protected works that are in digital form.²¹² Due to virtual parallel free markets, such as PirateBay, digital piracy is exposed globally with a click of a button which results in billions of dollars being lost for creators.²¹³

As a result, these free markets have made a significant negative impact on digital content development and entertainment companies, as well as threatening their business models, individuals have become competitive distributors of their works for free, which poses a threat to both established and growing lawful enterprises.²¹⁴ As seen above, digital material distribution differs significantly from physical copies of protected works due to its non-physical nature. It requires only one uploaded file on the internet to create limitless replicas for subsequent downloaders, the downloaders can then distribute the work by uploading it to other networks, resulting in an unlimited number of copies.²¹⁵ As a result, it is critical to comprehend how digital work distribution has changed over time, accidentally establishing other marketplaces that defy copyright enforcement through their network structures.²¹⁶

4.2.1 Prior History

The remarkable capability for near-flawless copying enabled by new technologies, has become significantly more prevalent in the last 20 years.²¹⁷ Digital representations on physical or

²¹² MW Mathini (2017) LLM 25.

²¹³ *Idem.*

²¹⁴ *Idem.*

²¹⁵ *Idem.*

²¹⁶ *Idem*

²¹⁷ D Dahlstrom *et al* “Piracy in the Digital Age” (2006) available at <https://courses.cs.washington.edu/courses/csep590a/06au/projects/digital-piracy.pdf> (accessed 23 July 2023).

mechanical materials were first employed by technologies, then digital representations on magnetic media, and eventually digital representations, which are medium-independent.²¹⁸

Historically, the most established type of work is literary works, which represent language visually.²¹⁹ Text could only be copied by hand for many years before the invention of the movable-type printing press, which appeared in Asia in the 13th century and Europe in the 15th century.²²⁰ Even though the printing press was invented, it was almost impossible for illegal copies to be made or distributed because of how slow and expensive it was to own a printing press, and how difficult it was to obtain written works, which caused a barrier to individuals who may have otherwise sought to undercut publishers.²²¹

4.2.2 *Twentieth-Century*

Photography emerged in the 19th century, with the first images being taken in the 1820s, which led to the mass-market film cameras and colour photography in the 20th century.²²² Around the same time, sound recording, and motion-picture cameras were developed leading to the development of video recording, gramophones, and phonographs. During this time, all these technologies made it difficult to duplicate any works created using them, except for photography, because it was expensive and complicated to do, resulting in works such as books, recordings, and motion pictures for commercial distribution.²²³

In the 1920s, magnetic tape became feasible for sound recording due to its ability to amplify weak electrical impulses with high fidelity, which resulted in the first magnetic recording medium being metal wire, followed by metal tape and later plastic cassettes coated with metallic particles in the

²¹⁸ *Idem.*

²¹⁹ *Idem.*

²²⁰ *Idem.*

²²¹ *Idem.*

²²² D Dahlstrom *et al* (2006) 4.

²²³ *Idem.*

1960s.²²⁴ These magnetic recordings were significant due to their ease of duplication and editing capacity, making them widely used to copy music.²²⁵ The discovery of electrophotography in the 1930s led to the commercialization of Xerography which is now generically known as “photocopying” which allowed the production of duplications of black and white text and images.²²⁶

The introduction of videocassette recorders (VCR) in the 1970s prompted a legal challenge, copyright-related because individuals had access to equipment that could record and play audio on magnetic tapes.²²⁷ VCRs allowed users to record television broadcasts that were owned by the creative industries.²²⁸

4.2.3 *Twenty-First Century*

With the developments in technology and the introduction of the Internet, new challenges emerged, which include unauthorised sharing of digital works through the Internet.²²⁹ The increased capacity of networks, personal computers, and computer software created new opportunities for pirates because it provided ways to copy works such as films, sound recordings music from CDs and reproduce them to MP3 files that can be stored in a computer's hard drive²³⁰ The copied files would

²²⁴ J Billock “This Missouri Company Still Makes Cassette Tapes, and They Are Flying Off the Factory Floor”(2022) available at <https://www.smithsonianmag.com/travel/this-missouri-company-still-makes-cassette-tapes-and-they-are-flying-off-factory-floor-180979417/> (accessed 23 July 2023).

²²⁵ M Hermansson “Cassettes: The Undying Need For Nostalgia” (2021) <https://www.thomann.de/blog/en/cassettes-the-undying-need-for-nostalgia/#:~:text=Cassettes%3A%20A%20part%20of%20culture&text=Cassettes%20were%20not%20bo ught%20because,early%20form%20of%20music%20piracy> (accessed 23 July 2023).

²²⁶ D Dahlstrom *et al* (2006) 5.

²²⁷ *Idem*.

²²⁸ *Idem*.

²²⁹ *Idem* 6.

²³⁰ *Idem*.

then be transferred over the internet into different platforms such as web pages or even be transferred via email.

File sharing was (still is with websites such as PirateBay) mostly done through the internet nowadays using peer-to-peer (P2P). As opposed to centralised storage, P2P networks provide a means for users to distribute information directly among themselves.²³¹ These networks don't function through a single point of contact; instead, any computer connected to the network is both client and server.²³²

Therefore, it's qualified as a distributed network. The content is saved on users' computers, essentially reducing the middleman to nothing more than a connector between devices.²³³ Online intermediaries only furnish the software/websites to connect, by retrieving IP addresses of other available users, the software/website links directly with users in search of the corresponding content. Due to the ease of accessing P2P networks for digital file sharing, the digital content sector has been hit with a surge in unauthorised file sharing.²³⁴ This trend has compelled the industry to act in unison. As those who consume also supply, there is a thriving market with full autonomy for distributing content digitally.²³⁵

Essentially, P2P networks were used to transfer files like music and films. P2P, as the name implies, allows individuals with computers to communicate with one another without the use of a central server.²³⁶ Users installed peer-to-peer software on their PCs and through it they were able to search the computer files of other users who shared the same program as a result of this.²³⁷ Due to these networks not having a central server because each computer acted as its own central server, it made copyright infringement harder to pursue.²³⁸ There was no easy central party to arrest or

²³¹ J A Wood “The Darknet: A Digital Copyright Revolution” (2010) 16 Rich. J.L. & Tech 4.

²³² S Androutsellis- Theotokis & D Spinellis “A Survey of Peer to-peer Content Distribution Technologies”(2024) 36 ACM Computing Surveys 336.

²³³ *Idem.*

²³⁴ *Idem.*

²³⁵ *Idem.*

²³⁶ O Aganga “The Indirect Liability Of Mobile Service Providers In South Africa: A Comparative Study” (2013) LLM thesis University of Pretoria 26.

²³⁷ O Aganga (2017) LLM 27.

²³⁸ *Idem.*

sue for the infringement. Individuals who violated the law were difficult to trace, and suing millions of infringers was prohibitively expensive.²³⁹ Recently, digital piracy is done through websites and content streaming services such as Netflix, which will be discussed below.²⁴⁰

4.3 Forms of Digital Piracy

4.3.1 Peer To Peer Networks(P2P)

As explained above, users can exchange or transmit information, data, files, or any other digital material from one computer to another with the use of P2P file sharing.²⁴¹ The fact that it is one of the simplest and most popular services is what causes the widespread usage of piracy. One such instance showing how P2P networks are used to facilitate digital piracy and violate copyright laws is the Napster case where Napster was sued because it facilitated the violation of copyright laws.²⁴²

4.3.2 Cloud Services and Cyber Lockers

Cyber lockers are internet services that serve as a host, storing data and facilitating data transfer.²⁴³ Anyone with access to the Internet can access the files they save here. These also go by the name

²³⁹ *Idem.*

²⁴⁰ The Hindu “As Digital Piracy Rises Amid Pandemic, Original Content Creators Losing Money: EY” (2022) available at <https://economictimes.indiatimes.com/industry/media/entertainment/as-digital-piracy-rises-amid-pandemic-original-content-creators-losing-money-ey/articleshow/83278032.cms?from=mdr> (accessed 25 July 2023).

²⁴¹ R Swope “Peer-to-Peer File Sharing and Copyright Infringement: Danger Ahead for Individuals Sharing Files on the Internet” (2004).⁴⁴ Santa Clara L. Rev. 861, at 866-867.

²⁴² A Anand “Digital Piracy - An Overview” (2022) available at <https://www.analyticssteps.com/blogs/digital-piracy-overview> (accessed 26 July).

²⁴³ Techopedia.com.” What is a Cyberlocker? - Definition from Techopedia”. (2022) available at <https://www.techopedia.com/definition/27694/cyberlocker> (accessed 26 July 2023).

of cloud services. The pirates save the illicit material on cloud storage platforms like Google Drive, Hotfile, Dropbox, and OneDrive.²⁴⁴

People may readily visit a variety of popular websites over the internet. These websites routinely replicate new movies or other media illegally or by other means, allowing people to watch them for free. Consequently, copyright infringement results.²⁴⁵

4.3.3 OTT Platforms Piracy

The availability of various over-the-top (OTT) platforms has increased as high-speed broadband internet has proliferated in several nations throughout the globe.²⁴⁶ The OTT sector has grown more competitive in the previous five years due to the emergence of Netflix, Prime Video, HBO, Hulu, and other services that stream exclusive content.²⁴⁷

The exclusive content includes both original material produced by OTT platforms' studios and premium content that companies have licensed for exclusive streaming on such platforms.²⁴⁸ Examples of this include HBO purchasing the exclusive streaming rights to "The Last of Us," Netflix purchasing the exclusive streaming rights to "Friends," etc.²⁴⁹ The content streamed on these platforms is stolen through a variety of methods, including sharing files online via social media and exchanging passwords and access credentials, which will be explained below.²⁵⁰

²⁴⁴ *Idem.*

²⁴⁵ *Idem.*

²⁴⁶ S Agrawal "Effect of Governance, Piracy, and Investment on OTT Subscription Numbers" (2019) 3.

²⁴⁷ *Idem.*

²⁴⁸ *Idem.*

²⁴⁹ *Idem.*

²⁵⁰ The Hindu (2022).

4.3.4 *Sharing Of Credentials*

On OTT services like Netflix and Amazon Prime, users purchase a single membership and share it with friends and family, preventing content distributors and creators from profiting fully from their assets.²⁵¹ Additionally, it invites content theft by stealing login information from legitimate users and then selling those accounts for a low price on the open or dark web.²⁵²

4.3.5 *Simulcasting*

This technique involves recording the information while it is being played back with the intention of sharing it.²⁵³ There are several methods for stream capture, including: capturing displays during screen-sharing sessions or playback, using a VPN to access content that is blocked in a certain location, using software for playing video or messing with the Android OS, and using re-quantization techniques to get around video watermarking.²⁵⁴

4.3.6 *Trial Fraud*

This practice entails people exploiting the trial package offers repeatedly using several accounts or emails addresses.²⁵⁵

²⁵¹ PallyCon “Analysis of VOD Piracy in OTT” (2022) available at available at <https://pallycon.com/blog/analysis-of-vod-piracy-in-ott/> (accessed 26 July 2023).

²⁵² *Idem.*

²⁵³ *Idem.*

²⁵⁴ *Idem.*

²⁵⁵ *Idem.*

4.5 Reasons Why People Pirate Digital Works

Understanding the characteristics that drive people to pirate is helpful when trying to identify remedies for digital piracy. Due to the relative ease with which digital material may be pirated and the fact that once copied, the quality of the copy itself does not considerably degrade, many people find it more convenient to obtain pirated items than to locate the originals.²⁵⁶ It is extremely simple to digitally pirate material and the level of quality of the copy is not dramatically diminished once copied, many people find it more convenient to obtain stolen items than to find the originals.²⁵⁷

Another reason why people pirate is because they want to save money because they believe that original digital works are pricey, they feel right in doing so.²⁵⁸ People obviously desire free goods. It is now simpler than ever to download thanks to P2P networks and torrent websites. Everything is available, including software, movies, and books. and downloading them frequently just takes a few minutes.²⁵⁹ The necessity for the goods, whether for leisure purposes, work, or school, is another important factor in why people pirate.²⁶⁰ People will even risk getting arrested in order to obtain the digital media they want, especially if they believe the danger to be minor.²⁶¹

²⁵⁶ K Byl & JP Van Belle “Factors Influencing South African Attitudes toward Digital Piracy” (2008) Communications of the IBIMA 202.

²⁵⁷ *Idem.*

²⁵⁸ *Idem.*

²⁵⁹ P Putman (2019)

²⁶⁰ K Byl & JP Van Belle (2008) 202.

²⁶¹ *Idem.*

4.6 Economic and Social Effects Of Piracy

4.6.1 *The Economic Consequences Of Piracy*

As explained by Jordan Safranski, Although some contend that digital piracy might boost word-of-mouth advertising, several studies, such as the one done by Nelson Granados,²⁶² have demonstrated the risks outweigh the benefits.²⁶³ Online piracy has a significant social cost for all those working in these sectors in addition to its economic effects.²⁶⁴ Piracy has a detrimental economic effect that trickles down to the workers of impacted firms from the content provider and host.²⁶⁵

First and foremost, digital piracy causes companies to lose a lot of money every year. For instance, the music industry loses a whopping \$2.7 billion in income every year because of piracy, which has an impact on both producers and businesses as well as employees.²⁶⁶ Millions of dollars in royalties are also lost by the creators, disproportionately harming up-and-coming artists who lack a massive fan base or a strong legal defence.²⁶⁷

²⁶² N Granados “How Piracy Is Still Hurting The Filmmakers And Artists You Admire” (2015) available at <https://www.forbes.com/sites/nelsongranados/2015/12/03/how-piracy-hurts-the-filmmakers-and-artists-you-admire/?sh=75308b3a4554> (accessed 26 July 2023).

²⁶³ J Safranski “What is the impact of piracy on businesses” (2015) available at <https://www.redpoints.com/blog/impact-of-piracy/> (accessed 26 July 2023).

²⁶⁴ *Idem.*

²⁶⁵ *Idem.*

²⁶⁶ RIAA “The True Cost of Sound Recording Piracy to the U.S. Economy” (2023) available at https://www.riaa.com/wp-content/uploads/2015/09/20120515_SoundRecordingPiracy.pdf (accessed 27 July 2023).

²⁶⁷ N Granados (2015).

4.6.2 Customer Experience Is Impacted By Piracy

Many customers who stream pirated videos may be shocked to learn that they are putting themselves at danger, and we're not just referring to legal repercussions.²⁶⁸ Illegal streaming sites frequently have spyware that is downloaded to the viewer's device.²⁶⁹ Without the user's knowledge, this virus may track keyboard inputs and website behaviour to acquire personal information with the press of a button.²⁷⁰

Therefore, even if you may believe that streaming a live football game is safe, for example, the security of your device may rapidly be breached, giving hackers access to your data.²⁷¹ Additionally, customer pleasure and experience are substantially reduced by the lack of quality control in stolen material.²⁷² The majority of pirated entertainment has poorer quality and standards than the original, including audio pauses, blurry images, and other issues.²⁷³

Customers are not receiving the quality that the original artists and companies intended if they are just viewing stolen material. This not only devalues the original material for the consumer but also discredits the author and brand of the content.²⁷⁴

4.7 Legal Attempts To Combat Piracy

4.7.1 Courts and Alternate Dispute Resolution

Copyright owners have sometimes resorted to volume litigation against individual infringers, monitoring file-sharing networks to identify IP addresses suspected of infringing their

²⁶⁸ Friendmts “Consequences of Piracy” (2022) available at <https://www.friendmts.com/consequences-of-piracy/> (accessed 27 July 2023).

²⁶⁹ *Idem.*

²⁷⁰ Friendmts (2022).

²⁷¹ *Idem.*

²⁷² J Safranski (2015) .

²⁷³ *Idem.*

²⁷⁴ *Idem.*

copyright.²⁷⁵ It could be challenging for certain copyright owners and users to use and interact with the legal system. Obtaining legal counsel and litigating the case in court may be expensive, time-consuming, and resource-intensive, among other things.²⁷⁶

To help with this issue, it can be suggested that we take a similar approach as the United States and the United Kingdom. In the United States, the US Congress introduced a "copyright small claims process" in December 2020 and ordered the Copyright Office to create a Copyright Claims Board (CCB) to handle specific copyright issues in a quick and straightforward manner.²⁷⁷ Midway through 2022, the CCB began accepting cases. The CCB is a speedy alternative to litigation for disputes up to \$30,000, provided that both parties to an issue agree to its use and anyone can participate in CCB operations, and representation is not necessary.²⁷⁸

Simple paperwork and information are required, and video conferences are used for hearings rather than formal court motions. The CCB considers three different kinds of cases: infringement accusations, requests for rulings that actions do not violate copyright, and complaints against false statements made in notifications.²⁷⁹

On the other hand, In the UK copyright matters can be pursued in the Intellectual Property Enterprise Court (IPEC) instead of the Chancery Division of the High Court.²⁸⁰ The IPEC was reformed in the early 2010s to provide a cheaper and more streamlined procedure for simpler, lower-value claims. Its accessibility is improved by not requiring barrister representation.²⁸¹

The IPEC is suitable for disputes where parties have limited financial resources, the claim is not complex, can be heard in 2 days or less, there are few witnesses, and the value is relatively small.²⁸²

²⁷⁵ S Karjiker (2017) 4.

²⁷⁶ Australian Attorney-General's Department "Copyright Enforcement Review" (2022) available at https://consultations.ag.gov.au/rights-and-protections/copyright-enforcement-review/user_uploads/copyright-enforcement-review-issues-paper.pdf (accessed 30 July).

²⁷⁷ *Idem.*

²⁷⁸ *Idem.*

²⁷⁹ Australian Attorney-General's Department (2022).

²⁸⁰ *Idem.*

²⁸¹ *Idem.*

²⁸² *Idem.*

The small claims track of the IPEC can hear certain intellectual property matters, including copyright, where remedies include damages for infringement, an account of profits, delivery or destruction of infringing items, and/or a final injunction to prevent future infringement.²⁸³

However, a lawsuit after the fact has never been a great option since, in most situations, the harm has already been done and pirated work is in the possession of millions of people, taking everyone that pirates work to court would be impractical because closing one website today another will open tomorrow. The conventional economic paradigm of copyright protection is in danger due to the ease with which individuals may engage in mass copying and dissemination. Simply put, there are too many copyright violators and not enough resources to effectively enforce the law.²⁸⁴

4.7.2 Technological Protection Measures

Trying to combat piracy when it comes to technological protection measures (TPM's) that have been placed to stop the unauthorised copying and sharing of copyright-protected works, the WIPO Copyright Treaty (WCT) came into effect on March 6, 2002 and it offers defences against technical safeguards being circumvented in relation to copyright-protected works.²⁸⁵ Anti-copy devices, access control, electronic envelopes, proprietary viewer software, encryption, passwords, watermarking, fingerprinting (user authentication), use metering and monitoring, and remuneration systems are examples of technological security mechanisms.²⁸⁶

The WCT protects "rights management information" and supports rights management systems. Article 12 of the WTO mandates that contracting parties must provide adequate legal remedies against individuals who knowingly perform acts that induce, enable, facilitate, or conceal an

²⁸³ *Idem.*

²⁸⁴ I Slabykh "The New Approaches to Digital Anti-Piracy in the Entertainment Industry" (2019) 19 UIC REV. Intell. Prop. L. 75 at 86.

²⁸⁵ T Pistorius "Developing Countries And Copyright In The Information Age: The Functional Equivalent Implementation of the WCT" (2006) PER: 2006 Volume 9 No 2 at 150.

²⁸⁶ DP Van der Merwe et al (2021) 338.

infringement of any right covered by the Treaty or the Berne Convention.²⁸⁷ This includes removing or altering electronic rights management information without authority and distributing or broadcasting works or copies of works without authority.²⁸⁸

Rights management information, includes information identifying the work, author, owner, terms and conditions of use, and numbers or codes attached to a copy work to the public. This protection ensures that the rights management information is protected and upheld in the context of international trade.²⁸⁹ Furthermore, copyright-protected works are protected from being circumvented by technical protection measures, according to Article 11 of the WCT.²⁹⁰

Contracting parties are obligated to "provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures" that are not legally allowed or approved by the relevant authors.²⁹¹ Instead of concentrating on the tools that enable infringement, the WCT targets the actions of infringement. It maintains the balance of copyright and is consistent with the reach of copyright protection.²⁹²

South Africa, a signatory to the World Trade Organization's WCT, has been slow to implement the WCT in its copyright law.²⁹³ It was recommended by the Commission on Intellectual Property Rights that developing countries should not be pressured into accepting higher intellectual property standards without a serious and objective assessment of their development impact.²⁹⁴

However, the WCT principles were partially introduced into South African law in 2002, with section 86 of the Electronic Communications and Transactions Act 25 of 2004, establishing a new

²⁸⁷ *Idem* 338.

²⁸⁸ *Idem*.

²⁸⁹ *Idem*.

²⁹⁰ *Idem* 339.

²⁹¹ *Idem*.

²⁹² *Idem*.

²⁹³ T Pistorius (2006) at 155.

²⁹⁴ DP Van der Merwe et al (2021) 343.

cyber-offence related to unauthorised access, interception, or interference with data.²⁹⁵ Section 86 was repealed by the Cybercrimes Act 19 of 2020 that came into force on 1 December 2021.²⁹⁶

Currently, the WCT principles are reflected in: section 2 relating to unlawful access to a computer system or a computer data storage medium, section 3 relating to the unlawful interception of data, section 4 relating to unlawful acts in respect of software or hardware tools, section 5 on the unlawful interference with data or computer program, section 6 on the unlawful interference with computer data storage medium or computer system, and section 7 for the unlawful acquisition, possession, provision, receipt or use of password, access code or similar data or device of the Cybercrime Act 19 of 2020.²⁹⁷ This is because some only crimes attack property that is IP related. Therefore, it is illegal in South Africa to violate TPMs that regulate access to copyrighted works in any way.²⁹⁸ This includes not just forbidding access control circumvention but also trafficking in devices that are “designed primarily” for this purpose.²⁹⁹ Furthermore, there are no technical exemptions (such as those for security testing, and encryption research), nor are there any exclusions for research or teaching. The ban is total, which is problematic.³⁰⁰ It appears as if these provisions are more stringent than those of the WCT.

Even though the Copyright Amendment Bill, 2017 plans to introduce the implementation of the WCT into our Copyright laws, it can be argued that the provisions are flawed and still need to be revised in a proper manner.³⁰¹ This can be seen, on one hand, in section 28O regarding prohibited conduct in respect of technological protection measures and section 28P regarding exceptions in respect of technological protection measures. Section 28O suggests making some actions

²⁹⁵ *Idem.*

²⁹⁶ Proclamation No.R42 of 30 November 2021 in Gvt Gaz No 45562. S58 read with the Schedule to the Cybercrime Act.

²⁹⁷ Cybercrime Act 19 of 2020.

²⁹⁸ I Slabykh (2019) 62.

²⁹⁹ *Idem.*

³⁰⁰ *Idem.*

³⁰¹ DP Van der Merwe et al (2021) 343.

pertaining to works covered by technical protective measures illegal.³⁰² The question is, are these necessary in light of the extensive provisions of the Cybercrime Act?

Nonetheless, there are a few issues with the revised language. Initially, section 28O(4) is only applicable in situations when a work is shielded by technical means "applied by the owner of the copyright." This is a serious issue as few copyright holders can implement such protections directly, and doing so would not be covered by 28O.³⁰³ Given that this section carries criminal penalties, interpreting the clause broadly is not an option. Moreover, "the" owner is referred to in this section rather than "an" owner. It is a fact that the author is also the initial owner of copyright in the work (subject to few exceptions), even if it is evident that the Department of Trade and Industry (DTI) does not comprehend the responsibilities of copyright writers and owners.³⁰⁴ This has the consequence of allowing the technical protection mechanism to be readily evaded unless the inventor applies it themselves.³⁰⁵

Secondly, Section 28O(3) prohibits the publication of material that might facilitate or aid in circumvention if it is done with the aim to encourage someone else to do the same.³⁰⁶ Because it restricts the scope of the offense to particular purpose—that is, if the publication is not created with the goal to instigate another—the term "inciting" is problematic.³⁰⁷ As suggested by S Karjiker and C Jooste the intended phrase should be "assisting," as it is evident from the instructions that the aim is to aid in circumvention, but the intention to provoke suggests more than merely giving directions.³⁰⁸

On the other hand, Section 28P aims to allow the evasion of technical security measures in cases when the work is utilized for authorized purposes like fair dealing.³⁰⁹ In the event that

³⁰² Section 28O of the Copyright Amendment Bill B13B-2017.

³⁰³ S Karjiker and C Jooste "Commentary on the Copyright amendment bill 2017) (2017) available at <https://blogs.sun.ac.za/iplaw/files/2017/06/CIP-Comments-Copyright-Amendment-Bill-2017.pdf> (accessed 30 July 2023).

³⁰⁴ *Idem*.

³⁰⁵ *Idem*.

³⁰⁶ *Idem*, Section 28O(3) of the Copyright Amendment Bill B13B-2017.

³⁰⁷ S Karjiker and C Jooste (2017).

³⁰⁸ *Idem*.

³⁰⁹ *Idem*, Section 28P(4) of the Copyright Amendment Bill B13B-2017.

circumvention is carried out on behalf of another party, section 28P(3) mandates the keeping of specific documents.

According to the Protection of Personal Information Act 4 of 2013 (POPIA), these recordings constitute personal information.³¹⁰ Because of this, it is preferable that the 2017 Bill explicitly state whether this part is governed by POPIA.³¹¹

Technological protection measures have raised concerns about limiting access to works. Copyright owners can use these measures to protect their works against unauthorised use, leading to a need to balance copyright owners' rights with public interests.³¹² Digital rights management and similar technologies also cause tensions. Authors have complete control over their works, with access to digital works increasingly governed by pay-per-view contracts.³¹³ This limits the size of the public domain, especially for non-copyrightable works and those that have entered the public domain as their copyright protection expires.³¹⁴ This trend affects information users worldwide, particularly in developing countries, where access to knowledge is dependent on individual ability to pay.³¹⁵

In summation, despite South Africa's efforts to implement these measures into its legal framework as a signatory to the WCT, there are still obstacles to overcome, particularly about the Copyright Amendment Bill. The Bill, which is intended to comply with WCT principles, still needs proper scrutiny. Concerns about the balance between copyright protection and public access to information arise when looking beyond national boundaries and considering how technological protection measures affect access to works. This is particularly relevant in developing nations where, financial limitations limit access to knowledge. The crux of the matter is the persistent conflict between the protection of intellectual property rights and the facilitation of unrestricted information flow on a local and global level.

³¹⁰ S Karjiker and C Jooste (2017).

³¹¹ *Idem*.

³¹² T Pistorius (2006) at 157

³¹³ *Idem*.

³¹⁴ *Idem*.

³¹⁵ *Idem*, 159.

4.7.3 *Internet Service Providers*

Furthermore, due to internet service providers (ISP) being role players in the provision of the internet, the legislature of South Africa acknowledged that the country's common and statute law rules place an unjustifiable risk of criminal and civil responsibility on Internet service providers.³¹⁶ The Electronic Communications and Transaction Act 25 of 2002 (ECT Act), Chapter XI, was the legislative response to this problem.³¹⁷ Due to fear of being liable for copyright infringement, internet service providers work diligently to take down any infringing works available on their platforms. Internet service providers will furthermore be discussed below.³¹⁸

The South African legislature acknowledged that the country's common and statute law rules place an unacceptable risk of criminal and civil responsibility on internet service providers.³¹⁹ In Chapter XI of the Electronic Communications and Transaction Act 25 of 2002 (ECT Act), the legislature addressed this matter.³²⁰

The ECT Act distinguishes between conduits, system caching, hosting, and linking, and grants service providers exemptions based on their roles within the digital environment.³²¹ ISPs that are merely conduits are exempt from liability for damages if they do not initiate the transmission, select the addressee, perform the function automatically without selecting data, or modify the data contained in the transmission.³²²

Caching services are exempt from liability for damages if they do not modify the data or comply with access conditions.³²³ Hosts are exempt from liability for damages if they do not have actual knowledge that the data message or activity is infringing the rights of a third party or are unaware

³¹⁶ FE Marx, N O'Brien "To Regulate Or To Overregulate? Internet Service Provider Liability: The Industry Representative Body In Terms Of The ECT Act And Regulations" (2021) *Obiter*, 32(3), 537.

³¹⁷ Marx & O'Brien (2021) 537.

³¹⁸ *Idem*.

³¹⁹ FE Marx, & N O'Brien. (2021) 538.

³²⁰ *Idem*.

³²¹ S73,74,75 and 76 ECT Act.

³²² S73 ECT Act.

³²³ S74 ECT Act.

of facts or circumstances from which the infringing activity or nature of the data message is apparent.³²⁴

Service providers that provide information location tools (i.e. links) are exempt from liability for damages if they do not have actual knowledge that the data message or activity is infringing the rights of the person, are unaware of facts or circumstances from which the infringing activity or nature of the data message is apparent, do not receive a financial benefit directly attributable to the infringing activity, and remove or disable access to the reference or link within a reasonable time after being informed.³²⁵

However, to qualify for these exemptions (safe harbour), the ISP must be a member of an Industry Representative Body (IRB) that has been recognized by the Minister, has adopted the IRB's Code of Conduct, and implemented its provisions, once an ISP has complied with these requirements, it may make use of the safe harbours if it: performs certain functions in a particular manner about the unlawful material; and has responded in a reasonable time to a legitimate take-down notice.³²⁶ Even though one would think that because of the fear of being liable for allowing individuals to download illegal copyright-protected information, ISPs would monitor their data, however, they have no obligation to do that in terms of section 78(1).³²⁷

Intermediaries are only free from liability once they know of unlawful content and respond to take-down notices.³²⁸ Internet Service Providers must comply with take-down notifications to protect their protection. ISPs are not liable for hosting if they act promptly upon receiving a take-down notification to remove or disable access to the data and they are not liable for infringing data cached if they remove access to the cache upon receiving a take-down notice.³²⁹ However, it should be noted that this procedure, which was seen as a solution, has its problems.

³²⁴ S75 ECT Act.

³²⁵ S76 ECT Act.

³²⁶ S72 ECT Act.

³²⁷ S78(1) ECT Act.

³²⁸ A Comminos "Intermediary Liability In South Africa" Intermediary Liability in Africa Research Papers, No. 3, 12.

³²⁹ S75(1)c and S74 ECT Act.

The ECT Act has been criticised for its lack of fairness and equal treatment of internet users.³³⁰ An example of this is how the Act allows content to be removed without notification to third parties, affecting freedom of expression and due process.³³¹ The ISP may choose not to remove the content but loses the safe harbour protection. There is no appeals mechanism for take-down notices, leaving ISPs and third parties with limited options to contest them.³³²

The third party is not given the opportunity to defend themselves and is reliant on the ISP to defend their interests. It is unclear whether ISPs are responding to take-down requests out of fear of liability.³³³ The ECTA may not provide an adequate balance between ISP accountability and the interests of all Internet users, making it open to abuse by individuals or corporations seeking to remove content for purposes other than good faith concerns over unlawful content.³³⁴ The question now is, what is the way forward if litigation does not work? Do takedown notices have their own problems? Suggestions to these problems will be provided for in the recommendations in the last chapter of this dissertation.

4.8 Different Types of Technological Protection Measures (TPM's)

4.8.1 *Harnessing Digital Technology to Protect Copyright*

With the advent of digital technology, copyright violations have taken on a new dimension that threatens creativity and the socio-economic growth of any community.³³⁵ As a result, it is necessary to use specific technical countermeasures to preserve the rights and interests of writers. Many authors think that the same technology that poses a danger to copyright may also be utilised

³³⁰ A Comminos (2012) 13.

³³¹ *Idem.*

³³² *Idem.*

³³³ *Idem.*

³³⁴ *Idem.*

³³⁵ Adetunji *et al* "Challenges Of Copyright Protection In The Digital Age: The Nigerian Perspective" (2022). Library Philosophy and Practice 20.

to safeguard works protected by copyright.³³⁶ The use of digital technology may be successfully applied to safeguard copyright works because it can be used to track, monitor, and regulate the reproduction and distribution of works.³³⁷

While copyright legislation cannot avoid infringement since it does not function prospectively, technical protection methods do and may do so efficiently. Additionally, technical protection mechanisms allow writers to exert factual control over what users can and cannot do with their works, whereas copyright law just gives authors the right to restrict the use of their creations.³³⁸ The following are some of the TPM's for defending owner rights and interests in the digital sphere.

4.8.2 Secure User Authentication Processes

To prevent intellectual property theft and exploitation, authentication makes sure that only authorised users may access the material.³³⁹ User authentication can be done in a variety of ways such as, firstly, the two factor authentication methodology which can be something the user knows (like a password) and something the user owns (like a mobile phone or a security token), and they can be used together or separately to establish a user's identity.³⁴⁰ Secondly, encryption is an important part of protecting copyright. No person or device can "accidentally" decrypt material, making encryption the essential component in separating approved from illegitimate usage.³⁴¹

³³⁶ M Conroy "A Comparative Study Of Technological Protection Measures In Copyright law" (2006) LLD thesis University of South Africa 26-27.

³³⁷ *Idem* 27.

³³⁸ *Idem*.

³³⁹ *Idem*.

³⁴⁰ J Samsel "Combating Online Piracy: Why Anti-Piracy Measures are Essential" (2023) available at <https://www.verimatrix.com/blog/online-piracy-why-anti-piracy-measures-are-essential/> (accessed 30 July 2023).

³⁴¹ *Idem*.

4.8.3 *Blockchain Technology*

Blockchain technology is a cutting-edge digital distributed ledger or infrastructure that enables one to document peer-to-peer transactions as they happen.³⁴² This ledger keeps track of copies of works that have been transferred digitally through a computer system and encoded with specific information that may be uniquely signed or recognized.³⁴³ A person can investigate the past and confirm the origin of such media material using the data that has been recorded.³⁴⁴

4.8.4 *Digital Watermarks*

The process of "watermarking" (sometimes known as tattooing) is used to safeguard a work's integrity and to confirm its authenticity.³⁴⁵ A watermark is an integrated copyright notice that might include information about the author (to help identify the author), rights, distribution, and other topics. Additionally, it could have guidelines and data on copy control.³⁴⁶ A collection of data might be shielded against unauthorised distribution using a process called digital watermarking even after a genuine buyer has bought the goods.³⁴⁷

Since a digital watermark is permanently affixed to a product, it might serve as protection after the client has purchased it. Most modifications should not remove an ideal digital watermark.³⁴⁸ Digital watermarking has been studied for use in several copy protection and copyright protection applications because of its ability to restrict the distribution of the goods in issue.³⁴⁹

³⁴² B Bodó, D Gervais, J P Quintais "Blockchain and Smart Contracts: The Missing Link In Copyright Licensing?" (2018) v26, Issue 4 International Journal of Law and Information Technology 313–314.

³⁴³ *Idem.*

³⁴⁴ *Idem.*

³⁴⁵ M Conroy (2006) LLM 35.

³⁴⁶ *Idem.*

³⁴⁷ S Patil "Fundamentals of Digital Watermarking" (2014) Master of Science, at 5-6.

³⁴⁸ *Idem.*

³⁴⁹ *Idem.*

4.8.5 Access Control

Access-control technology is the most fundamental and significant sort of technical protection since it stops someone from viewing, reading, hearing, or otherwise experiencing the work without the author's permission.³⁵⁰ It is different from authentication as it is based on the identity of the user who requests access to a resource. It can be used to limit or forbid further access to a copy of a work that has already been obtained, or it can prevent access at the level of the online outlet or the information user.³⁵¹

Encryption effectively "locks" digital works when used as access control, ensuring that only authorised users have the keys to unlock and utilise it.³⁵² However, access control systems employ other techniques besides encryption. Access may also be subject to requirements such as passwords or other types of data authentication.³⁵³

4.8.6 Copy Control

A work can be utilised only if it can be accessible, hence regulating access also controls usage generally. However, there are situations when a writer wants to make her work available while retaining control over later usage.³⁵⁴ The author has two options to do this: utilise controls or copy. The author can restrict the user's freedom of movement after she has accessed the material by using copy control.³⁵⁵

³⁵⁰ J Besek "Anti-Circumvention Laws and Copyright: A Report from the Kernochan Center for Law, Media and the Arts" (2004) 27 Columbia Journal of Law & the Arts 450.

³⁵¹ M Jansen "Access to Works Protected By Copyright: Right Or Privilege?" (2005) available at http://icsa.cs.up.ac.za/issa/2005/Proceedings/Full/002_Article.pdf (accessed 31 July 2023).

³⁵² Java "Access Control, Authentication, and Encryption" (2005) available at <https://docs.oracle.com/cd/E19901-01/817-7607/aci.html#wp20186> (accessed 31 July 2023).

³⁵³ *Idem*.

³⁵⁴ M Conroy (2006) LLD 31.

³⁵⁵ *Idem* 31-32.

As a result, it permits allowed operations while discouraging illegal ones by the user who has previously viewed the work. The ability to copy, communicate, view, or play a work is restricted by copy control technology.³⁵⁶ The primary purpose of this kind of technical security mechanism is copy protection. The types of uses that may be made of a work are restricted or prevented by copy controls. When used as a copy control, encryption renders content files illegible after being copied, rendering the material useless to the receiver.³⁵⁷

4.8.6 Digital Rights Management Systems (DRMs)

Digital rights managers (DRMs) are a tool used by copyright owners to stop infringement caused by sharing digital works. The term "DRM" refers to a group of technical controls that are applied to digital works that are available online, to manage their legitimate use and prevent or restricting future reproduction or usage.³⁵⁸ DRMs are a type of ex post facto copyright enforcement method designed to assure licence compliance and reduce the possibility of unlawful distribution and/or replication of digital works.³⁵⁹

The World Trade Organization (WTO) protects "rights management information" and supports rights management systems.³⁶⁰ Article 12 of the WTO mandates that contracting parties must provide adequate legal remedies against individuals who knowingly perform acts that induce, enable, facilitate, or conceal an infringement of any right covered by the Treaty or the Berne Convention.³⁶¹ This includes removing or altering electronic rights management information without authority and distributing or broadcasting works or copies of works without authority.³⁶²

³⁵⁶ *Idem* 32.

³⁵⁷ Orpheum "The Record Companies' Answer To Music Piracy" (2003) available at <https://everything2.com/title/Copy+Control+Technology+and+Music+CDs> (accessed 31 July 2023).

³⁵⁸ N V Kumar "Digital Rights Management and Intellectual Property Protection" (2012) 1.

³⁵⁹ *Idem*.

³⁶⁰ DP Van der Merwe (2021) 338.

³⁶¹ *Idem*.

³⁶² *Idem*.

Even if DRMs have been a creative weapon in the fight against illegal online file sharing, their efficacy is still up for debate because online piracy persists.³⁶³ Their unintentional overstretching of technology has also been a source of challenge to copyright owners' ongoing usage since it interferes with end users' entitlement to fair use of the works.³⁶⁴

4.9 The Effectiveness Of These Technological Measures

Looking at the technologies discussed above, one can conclude that they are perfect for the protection of digital works, and they can lead to the eradication of digital piracy. However, the efficacy of technological security in preventing unauthorised access or copying relies on the medium and kind of technological protection.³⁶⁵ No method of protection can completely halt unlawful usage, however, it can stop part of it. While some systems are simple to take down, others are more challenging.³⁶⁶

Individuals are better able to utilise or abuse technology because of societal technological literacy. Finding a threshold that is both high enough to prevent illegal usage and low enough to prevent customers from refusing to buy and use protected items is the difficult part of making the system operate on a broad scale.³⁶⁷ These technological protections might warn consumers who seek to duplicate that they are breaching the law. While this wouldn't stop them, it would at least make the act less convenient and highlight how unlawful it is by making them go through complicated processes to produce copies.³⁶⁸

³⁶³ S Haber, & H William & Pato, Joseph & Sander, Tomas & Tarjan, Robert "If Piracy Is The Problem, is DRM the Answer?"(2003) 3.

³⁶⁴ *Idem.*

³⁶⁵ U.S. Congress, Office of Technology Assessment "intellectual Property Rights in an Age of Electronics and Information" (1986) OTA-CIT-302 (Washington, DC: U.S. Government Printing office) 119.

³⁶⁶ U.S. Congress, Office of Technology Assessment (1986) 119.

³⁶⁷ *Idem.*

³⁶⁸ *Idem* 120.

As shown in the previous subsection above on TPM's,³⁶⁹ In South Africa, access control circumvention and the trafficking of equipment intended for this purpose are forbidden by the Cybercrime Act 19 of 2020. The prohibition is complete since there are no technical exceptions or exclusions for teaching or research, which has been argued to be problematic. Although the provisions of the Copyright Amendment Bill, 2017 are deficient, the bill attempts to incorporate the WCT into copyright laws. The anti-circumvention technologies are argued to only be effective when a work is protected by technological methods used by the copyright owner as shown in Section 28O(4). This is problematic since not all copyright holders are able to directly implement such safeguards. Furthermore, Copyright holders can apply technological protection methods to prevent illegal use of their works, which has prompted worries about limiting access to works, as the public domain is becoming smaller due to the growing presence of pay-per-view contracts controlling and limiting public access to digital works.

4.10 The Effectiveness of Litigation

When it comes to IP cases, South Africa has a Court of the Commissioner of Patents that has exclusive jurisdiction over IP matters.³⁷⁰ A high court judge with some specialised knowledge and experience typically gained from practical experience appoints himself or herself on an as-needed basis to preside over a particular patent case.³⁷¹ Generally speaking, the judge's president assigns judges with some IP experience to settle the court roll, while other IP matters such as copyright are decided by high court judges.³⁷² Similar procedures apply in Wales and England, where the Chancellor appoints "expert" Chancery Court judges to handle patent disputes in addition to

³⁶⁹ See para 4.2.7 above.

³⁷⁰ WIPO "The Role of the Judiciary in Enforcement of Intellectual Property Rights; Intellectual Property Litigation under the Common Law System with Special Emphasis on the Experience in South Africa" (2023) available at https://www.wipo.int/meetings/en/doc_details.jsp?doc_id=29590 (accessed 31 July 2023) 7-8.

³⁷¹ *Idem.*

³⁷² *Idem.*

regular chancery issues; other IP cases are not always assigned to specialised judges.³⁷³ This means, currently there is one channel to help copyright holders to enforce their rights.

Additionally, the costs of IP litigation are high due to copyright litigation being labour-intensive and complex.³⁷⁴ A party is required to present proof of copyright ownership and sustenance before it may compare the protected work to an alleged infringing work.³⁷⁵ This can become more difficult if there is a lot of work involved or if the work is large in scope. Whatever the case, infringement procedures come at a high cost.³⁷⁶ To overcome this issue, it would be appropriate to introduce courts that specialise in copyright infringement cases.

It has been suggested before that it is necessary to establish a specialised court with jurisdiction over the whole of South Africa to handle IP matters only.³⁷⁷ Some parties opposed the plan, while others were in favour of it. The question of whether the nation needs specialised intellectual property tribunals has been up for debate ever since.³⁷⁸ The benefit of specialised IP courts is that they allow judges with specialised expertise in IP law to be appointed, which leads to decisions being made more quickly and with higher quality.³⁷⁹

In addition to improving legal clarity, the establishment of IP courts raises public awareness of the enforcement of intellectual property rights and improves uniformity in case decisions.³⁸⁰ Furthermore, simplified rules and processes that are specifically appropriate for IP cases can be established through specialised IP courts.³⁸¹ This system is criticised, it is argued that the South

³⁷³ *Idem.*

³⁷⁴ H Blignaut “Copyright Laws and Regulations Report 2024 South Africa” (2023) available at <https://iclg.com/practice-areas/copyright-laws-and-regulations/south-africa> (accessed 20 October 2023).

³⁷⁵ *Idem.*

³⁷⁶ *Idem.*

³⁷⁷ M Makoko “Specialised Intellectual Property Courts: Where Does South Africa Stand On The Global Map?: Intellectual Property Law” (2014) *Without Prejudice* Vol. 14, No. 2, 49.

³⁷⁸ *Idem.*

³⁷⁹ *Idem.*

³⁸⁰ *Idem.*

³⁸¹ *Idem.*

African legal system does not warrant the establishment of specialised courts since there are not enough judges with the requisite expertise in IP in the nation.³⁸²

It is also contended by others that insufficient litigation warrants the establishment of such a court.³⁸³ However, from what has been shown above by this dissertation, digital piracy is going to cause an increase in litigation and eventually lead to the need for such a legal system.

The process of establishing specialised courts can take time and a lot of resources as shown above. In the meantime, there is a need to modify our courts to utilise e-technology. This can include using video links such as Microsoft Teams and Zoom as seen in *Avusa Entertainment Investments (Pty) Limited v Acucap Investments (Pty) Limited*³⁸⁴ and *Another and Storm v Road Accident Fund*³⁸⁵ cases. The court in *Chongqing Qingxing Industry SA Pty Ltd v Minging Yee* highlighted the importance of electronic solutions in the justice system during the Covid-19 pandemic.³⁸⁶ This included virtual court hearings and accelerated use of digital case management and litigation systems.³⁸⁷ This highlights the need for electronic court processes in the future to streamline court proceedings and make them more cost-effective.³⁸⁸

4.10 Summation

This chapter has examined the complex reality of digital piracy, providing a thorough analysis of its definition, development, and manifestations. It highlights the difficulties copyright laws face from digital piracy, particularly in the internet era. It has been demonstrated that the allure of free

³⁸² *Idem* 50.

³⁸³ *Idem*.

³⁸⁴ *Avusa Entertainment Investments (Pty) Limited v Acucap Investments (Pty) Limited and Another* (14946/2019) [2021] ZAGPJHC 13).

³⁸⁵ *Storm v Road Accident Fund* (17949/2018) [2021] ZAGPJHC 12 (29 January 2021).

³⁸⁶ *Chongqing Qingxing Industry SA (Pty) Limited v Ye and Others* (35962/2020) [2021] ZAGPJHC 162 (29 January 2021) par 2.

³⁸⁷ *Idem*.

³⁸⁸ *Idem*

content and conscience are the main driving forces behind people's engagement in digital piracy. The chapter highlights the negative impacts on consumer experiences and the significant financial losses suffered by industry as well as the social and economic repercussions of piracy. A variety of technical countermeasures are proposed in reaction to piracy, including digital watermarks, blockchain technology, secure user identification, copy control, access control, and digital rights management systems. Although these actions only serve as a partial deterrence to illegal consumption, their effectiveness is acknowledged. The importance of intellectual property courts and the function of litigation are also topics covered in the dissertation. The need to incorporate e-technology into legal procedures and Internet service provider's obligations under the current legal system is also emphasized.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In the preceding chapters, we embarked on a journey to understand the complex and multifaceted issues of digital piracy in the digital age. We have explored the history, evolution, and forms of digital piracy, delved into the motivations behind piracy, and examined the economic and social consequences of this pervasive problem. Now, it is crucial to draw key insights and provide recommendations that can help address copyright challenges in this ever-changing digital landscape.

5.2 The Significance of Copyright In The Digital Era

In this digital era, copyright remains of paramount importance. It is a bedrock upon which creative industries thrive, enabling creators to earn a living from their work. Copyright provides an essential framework for incentivizing innovation and artistic expression. However, it faces unprecedented challenges in the face of digital piracy. From what has been discussed above, here are the key findings:

The digital age has given rise to piracy on an unprecedented scale. The ease with which digital content can be copied and distributed poses a significant threat to the creative industries. Virtual markets like PirateBay have flourished, enabling the rapid distribution of Copyright protected works.

A historical perspective shows us that technological advancements have consistently presented challenges for copyright protection. From the printing press to magnetic tapes and photocopiers, each innovation has tested the limits of copyright enforcement. Now the issue has evolved to the online environment.

With the Internet and high-speed connectivity, new challenges have emerged. Peer-to-peer (P2P) networks, websites, and OTT platforms have become breeding grounds for piracy. Free websites, sharing of login credentials for OTT platforms, simulcasting, and trail fraud further exacerbate the issue.

Understanding why people resort to piracy is essential. Convenience, cost, and necessity are among the driving factors. People often pirate digital content because they perceive original works as expensive and seek free alternatives. Digital piracy has substantial economic and social costs. Losses incurred by industries and creators are substantial, disproportionately affecting smaller creators. Additionally, the customer experience is hindered, as pirated content often lacks quality and security.

5.4 Recommendations

As we seek effective solutions to combat digital piracy, the following recommendations are made below.

5.4.1 *Specialised Intellectual Property Courts*

Due to owners of copyrights frequently experiencing uninvited use of their works, which can result in expensive and unpredictable legal action. Creative court practices can enhance judicial efficiency and justice access.³⁸⁹ China has set up three dedicated online courts to handle cases involving copyright and other internet-related matters. In its first year of operation, the Hangzhou court handled more than 10,000 cases.³⁹⁰

³⁸⁹ F Mostert, and J Lambert “Study on IP Enforcement Measures, Especially Anti-Piracy Measures in the Digital Environment” (2020) [S.I.] : SSRN at 9.

³⁹⁰ *Idem.*

Beijing and Guangzhou have welcomed the opening of two new courts. For IP infringement claims under £10k, there is a small claims track court in England; however, its caseload is not as large as that of the Chinese internet courts.³⁹¹ South Africa can adopt a system that is similar to this one, which will entail the revision and update of the copyright and intellectual property laws to align with the digital age and international standards, establishing dedicated online courts specialising in copyright and internet matters such as inter alia, online piracy copyright infringements, and other internet-related legal disputes, establish e-filing systems that would allow copyright owners to file complaints and evidence electronically, develop a streamlined procedure such as pre-tail conference proceedings or track processes.

4.8.2 *Website Blocking (ISP)*

One of the most important digital tools in the fight against online piracy is website blocking, which usually involves Internet Service Providers (ISPs) preventing access to websites that host content that violates copyright.³⁹² ISPs may adopt it, or right holders or trade bodies within the sector may seek it. It has been demonstrated that dynamic blocking, which includes "mirror sites," works.

Some contend that one of the best digital strategies for combating internet copyright violations is blocking.³⁹³ Within a short time following banning, traffic to websites containing illegal material in Denmark decreased as shown by Danaher, Smith. and Telang.³⁹⁴ In the EU, website blocking orders are common, and several nations, including Australia and Singapore, have enacted laws to make blocking easier.³⁹⁵ In 2005, Denmark saw the issuance of the first recorded court order to prohibit a website due to copyright infringement. To expedite the process of banning websites that

³⁹¹ *Idem.*

³⁹² Internet Society "Internet Society Perspectives on Internet Content Blocking: An Overview" (2017) available at <https://www.internetsociety.org/resources/doc/2017/internet-content-blocking/> (accessed 31 July 2023)

³⁹³ Internet Society (2017).

³⁹⁴ B Danaher, MDSmith and R Telang "Website Blocking Revisited: The Effect of the UK November 2014 Blocks on Consumer Behavior" (2016) Available at SSRN: <https://ssrn.com/abstract=2766795> .

³⁹⁵ F Mostert, and J Lambert (2020) at 18.

violate intellectual property rights, the Danish government has started examining the civil court system's legal system.³⁹⁶ This solution will be able to provide copyright owners protection from further infringements by others who have not yet discovered the website. Even though certain observers express apprehension that the act of blocking is an extreme step that might necessitate making crucial judgments on basic rights, such as privacy and free speech, and should be submitted to court scrutiny.³⁹⁷

4.8.3 Reforming the Take-Down Notice System

As shown above, the current takedown notice system requires reform to ensure fairness and balance. Take-down policies are frequently unfairly biased in favour of the complainant. Because they want to stay out of trouble, intermediaries are not motivated to protect the interests of other people (the original the purportedly illegal or infringing material providers). Procedures for taking down must include procedures for third parties to seek redress. It advised that all impacted parties should have due process rights and reasonable remedies through these mechanisms. Additionally, ISPs need to take a more proactive role in combating piracy by implementing stronger monitoring mechanisms even though we know that they do not have to, however, they can work in collaboration with copyright owners to develop effective anti-piracy strategies.

5.5 Way Forward

Copyright protection will continue to provide difficulties as we negotiate the complexity of the digital world. It is important to adjust to the constantly changing technology and consumer habits, as forthcoming advancements and global collaboration might be crucial in the battle against digital piracy. In addition to acting as a security for artists, copyright also acts as a spark for invention

³⁹⁶ *Idem.*

³⁹⁷ *Idem* 20.

and creativity, defending the rights of those who provide us with entertainment, education, and other forms of artistic expression. A systematic and thorough strategy for combating digital piracy in the digital era is provided by this chapter, which emphasizes the need to collaborate to protect intellectual property rights and adjust to the changing environment.

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