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DIGITISATION AND THE LAW OF INTELLECTUAL PROPERTY

BY

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L410 – OBLIGATORY ESSAY
DIGITISATION AND THE LAW OF INTELLECTUAL PROPERTY

BY

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to be accepted for examination. I have checked it carefully and I am satisfied that it fulfils the requirements relating to format as laid down in the regulations governing obligatory essays.

Dated this 3rd day of AUGUST 2001

Supervisor
Dedication

This obligatory essay is dedicated to my late mother Mrs. Chaze Masani for instilling in me the drive and determination to acquire an education come what may. Her confidence in whatever I have done has always inspired me never to give up. I thank her for always having been there for me.
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'The issues under discussion'
INTRODUCTION:

The last century saw the greatest growth in technology in the history of the world. From the Industrial Revolution at the turn of the last century to the plethora of inventions to man's journey into space the past one hundred years has seen man make huge advances that have affected him in various ways. However, during the last few years of the Twentieth Century three major technological changes have fundamentally altered modern life. These are the increased digitisation of information, the rapid growth of computer networks and the creation of the World Wide Web, which has revolutionised information, based industries all over the World.

The revolution has occurred as a result of the ease at which information on the World Wide Web may be published, distributed, and reused.

"The Web is an information resource of extraordinary size and depth, yet it is also an information reproduction and dissemination facility of great reach and capability; it is at once one of the world's largest libraries and surely the world's largest copying machine."

The impact that the World Wide Web has on our lives, however, needs to be analysed together with the other previously mentioned technological developments namely digitisation and the growth of computer networks. The development of digital technology has had a profound affect on how information may be accessed and used. A vivid example of this effect will be clear throughout this paper when it will be noted that almost all the research and information

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collection was made possible as a result of the digitisation of information and the growth and
development of the Internet and the World Wide Web.

'Napster's' technology is by no means the first to upset the film and music industry or any other
information based industry in The United States. What distinguishes this technology from past
developments is the far ranging implications that it has for any company that deals in
information.3

This paper will begin with an analysis of the developments that have changed the way
information is published distributed and used namely digitisation, the growth and development
of the Internet and The World Wide Web and the software developed by Napster that helped
change the way not only the music industry but the rest of the digital world deals with
information and technology. Finally we in Africa cannot forever claim that technological
advances are too far removed from our lives and so the Third World perspective of the
developments of the past decade will also be analysed.

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3 Time Magazine Art on Napster Oct. 2000
CHAPTER ONE: The issues under discussion

When information is represented digitally, access inevitably means making a copy even if this is only a temporary one. Even an action as simple as examining a document stored on a disk means copying it from the disk to the computer’s memory and then again onto the video display. The information could be displayed directly from the disk to the screen but disks are much too slow to allow this to be practical. Main memory is many times faster and so many pages of information are stored there first. This copy is, however, temporary disappearing as soon as a different page is viewed. Such copying occurs with all digital information and even simple now commonplace actions like viewing a picture on a computer or reading e-mails or listening to songs from the Internet inevitably involve making several copies.  

In contrast, the traditional media does not involve making such copies. This very close nexus between access and copying has considerable significance for intellectual property protection. This is because whilst one of the essential elements of copyright - the right to control reproduction - can be enforced and controlled in the traditional media where an obvious distinction exists between access and reproduction, in the digital world where access and reproduction are so interconnected traditional aspects of this element can not hold true. The consequences of this intimacy cannot be ignored and form the backdrop of this discussion.

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4 www.mp3.com/my/views/yourmusic.html

5 ibid.
The digitisation of information creates further problems for the protection of intellectual property because of the speed and ease at which volumes of information can now be stored, used and/or transferred.\(^6\)

Compounded with this is the perfect reproduction that results from copies made in the digital format. Every copy is as good as the original and can therefore be the source of additional perfect copies, which reduces what was once a natural impediment to copyright infringement. A ‘pirate’ copy in digital form is almost indistinguishable from the original making the pirated copy as good as the original. What once helped distinguish a pirated work from a copyrighted work that is the poor quality of pirated material is no longer useful further worsening the battle against copyright theft.\(^7\)

The growth of computer networks is the second of the three cornerstones of technology that have changed the face of intellectual property protection over the past decade. Computers, even in remote areas, are often connected to networks that enable rapid and inexpensive distribution of information. To profit from copyrighted work a pirate must incur the cost of reproduction and distribution. Traditionally this process would involve the use of bulky and expensive equipment. To produce near perfect copies in digital form, however, costs next to nothing. Furthermore, networks make the distribution even on a global scale relatively inexpensive and very fast making it easier and also less expensive for a pirate to engage in

\(^{6}\) For example a CD which holds 650 megabytes (about 220 000 pages or 44 cartons) can be copied in 15 minutes to a blank compact disk that is, even in the third world inexpensive using equipment that is easily available in offices and some homes even here.

\(^{7}\) The Digital Dilemma: Intellectual Property in the information Age
illegal copying and reproduction. Computer networks thus amplify the consequences of copyright violations that were previously tolerable.\textsuperscript{8}

The final cornerstone of the effects of the advances made by technology is the World Wide Web, which is a vast collection of electronic documents, formatted using special languages. These documents have a number of properties the most important of which is that they contain multimedia (text, graphic, audio, video) and they link to other documents in a way that makes it effortless for users to access information. The vast collection of interconnections is what gives the web its name and also much of its interesting character.\textsuperscript{9}

"The Internet makes it possible for computers to exchange information while the Web provides the superstructure in which that information can be organised and published. Digital information radically changes the economics and character of reproduction; computer networks radically change the economics and character of distribution while the Web radically changes the economics of publication."\textsuperscript{10}

Although the problems associated with the law lagging behind advancing technology have been present for many years, it took the actions of a young man in the United States of America to bring the effects of digitisation and the growth of the Web to the attention of the World. In mid-1999, Shawn Fanning developed an application, which he named ‘Napster‘ that has forced the huge American music industry and other owners and publishers of intellectual property to re-evaluate the form, and content of information based industries.\textsuperscript{11}

\textsuperscript{8} www.mp3.com/my/views/yourmusic.html

\textsuperscript{9} ibid.

\textsuperscript{10} The Digital Dilemma: Intellectual Property in the information Age
Before 'Napster' downloading music from the Internet was a cumbersome time-consuming process. The digital-music standard ISO-MPEG Audio Layer-3 commonly known as MP3 which had been in existence from as far back as 1987 never achieved the speed and ease with which 'Napster' revolutionised the acquisition of music off the Internet. 'Napster's' programme works in such a way that it allows Internet users to exchange files from their personal computers with files from the computers of other Internet users without going through a central server.\textsuperscript{12}

This is by far the most revolutionary aspect about Napster; its ability to allow computer users to avoid the server bottlenecks so often associated with getting information from the Internet. Only Napster's index and directory reside on the central server; the files are actually transferred via various Windows protocols directly from user to user. This innovation has come to be known as peer-to-peer application. It also means that no copyrighted material is ever in Napster's possession.\textsuperscript{13}

Despite the development and use of Napster to ease the search for music from the Internet and its huge success with music lovers especially in the United States of America\textsuperscript{14} the music, industry in America was disturbed by the freely available music, which belonged to their members. In December 1999 The Recording Industry Association of America (RIAA) and The National Music Publishers Association (NMPA) on behalf of their members sued Napster because it was felt a service was launched that not only enabled but also facilitated and

\textsuperscript{11} www.timeurope.com, Article by Karl Taro
\textsuperscript{12} ibid.
\textsuperscript{13} Time October 2000 p 54

\textsuperscript{14} According to Time magazine there could be as many as One billion music file available on Napster users' computers.
encouraged the piracy of copyrighted music on an unprecedented scale\textsuperscript{15}. In July 2000, a United States Federal District Court granted a preliminary injunction against Napster. Chief District Judge Patel had this to say about Napster's new-found application and the use it had been put to;

"Napster's business strategy from the inception was to use the plaintiffs' music to 'usurp' and 'undermine' the record industry, 'to take over, or at least to threaten, [the] plaintiffs' role in the promotion and distribution of music.' Napster sought to build and monazite an enormous user base by making available - without authorisation or payment - the most popular music...Napster succeeded in creating 'illegal copying on a scale that is without precedent'...Everyday, Napster enables, encourages and directly benefits from the infringement of 12 to 30 million copyrighted works."\textsuperscript{16}

In late July of 2000 The Court of Appeals for the Ninth Circuit granted Napster a temporary stay of judge Patel's preliminary injunction. The plaintiffs, however, appealed against this temporary stay.

In their brief filed in The United States Court of Appeals for the Ninth Circuit the plaintiffs argued that Napster was guilty of both contributory and vicarious copyright infringement. They further stated that the recording industry was suffering tangible and irreparable harm in the sale of their music through traditional outlets, in the burgeoning Internet distribution market.\textsuperscript{17}

\textsuperscript{15} www.riaa.com

\textsuperscript{16} ibid.
Along with the RIAA and the NMPA’s filings, the Business Software Alliance (BSA) filed an “Amicus Curiae” (friend of the Court) brief in support of the plaintiffs’ position. BSA members include software giants such as Microsoft, Apple Computer among other software companies. The “Amicus Curiae” brief was signed by other organisations, however, that included a wide cross section of industries. These included the Powerful Motion Picture Association of America (MPAA), The American Society of Composers Authors and Publishers (ASCAP) and the National Basketball Association (NBA).\(^{18}\)

The wide cross section of plaintiffs in this suite goes to highlight the great impact that the software developed by Napster has had on so many industries once thought to be not only powerful but also unrelated to each other. The powerful effect of digital technology that has been felt by all these industries cannot also be ignored highlighting the revolutionary effect that digitisation has had and will continue to have. ‘Napsterisation’, which has been coined by Time reporters as the duplication of any information from the Internet via the peer-to-peer application of Napster has serious consequences for any Internet based company.\(^{19}\)

On February 12, 2001, a decision was finally passed by the United States Court of Appeal for the Ninth Division that indicated how lawmakers in The United States would deal with Napster’s new technology and the effects of digitisation. The Appeals Court agreed with the District Court that the record companies presented a prima facie case of direct copyright infringement by Napster users and further that the defence of fair use as argued by Napster could not be allowed. The Court concluded that Napster was guilty of contributory copyright infringement as

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\(^{17}\) RIAA v. Napster 114 F. Supp. 2d 896, 900(N.D. Cal. 2000)

\(^{18}\) ibid

\(^{19}\) www.timeeurope.com
they found that it encouraged and assisted its users to infringe the record companies’ copyrights and Napster further materially contributed to the infringing activity. The Court concluded that Napster had a direct financial interest in its users’ infringing activity and retained the ability to police its system for infringing activity. Thus, Napster was also guilty of the vicarious liability placed against it.\textsuperscript{20}

A defence that Napster used and has been used by other companies in similar lawsuits is that of ‘fair use’. This doctrine of copyright law is rather complicated and its application varies depending on the specific facts and circumstances. In general, the doctrine allows an individual to reproduce, distribute, adapt, display and/or perform a copyrighted work depending on a number of factors\textsuperscript{21}. These are the purpose and character of the use including whether or not such use is of a commercial nature or not or is for non-profit educational purposes; the nature of the copyrighted work; the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and the effect of the use upon the potential market for or value of the copyrighted work.\textsuperscript{22} Even the legal experts are challenged by the assessment of these four factors but one may easily conclude that it will constitute ‘fair use’ to allow an individual to make whole copies of copyrighted materials available to millions of anonymous strangers. This is tantamount to publishing, which would constitute copyright infringement if the permission of the copyright owner has not been obtained.\textsuperscript{23} By making available via its website thousands of copyrighted works freely and without permission to any and all who logged onto their website Napster was clearly in violation of the fair use principal and the Appeals court found as such.

\textsuperscript{20} RIAA V. Napster114 F. Supp. 2d 896, 900(N.D. Cal. 2000)

\textsuperscript{21}www.riaa.com

\textsuperscript{22}Digital Dilemma : Intellectual Property in the Information Age

\textsuperscript{23}www.riaa.com
It was held, however, that the Audio Home Recording Act (AHRA) of 1992, which has been very successful in enforcing traditional means of copyright protection did not cover the downloading of these music files to computer hard drives. This Act covers devices designed or marketed for the primary purpose of making digital musical recordings and provides these devices, and their manufacturers, with some protection from contributory copyright infringement claims. Those covered devices are required to incorporate technology to prevent serial copying and further the manufacturers of covered devices also pay a royalty to copyright owners. However, general-purpose computers are not covered by this Act so that statute imposes no obligations on Napster and provides no immunity for either Napster or its users. This is why the District Court held that this Act was inapplicable.\(^{24}\)

The extent of their liability was however reduced. The panel concluded that Napster could only be held liable for contributory copyright infringement only to the extent that it knows of specific infringing files with copyrighted works, knows or should have known that the files are available on the Napster system and fails to act to prevent the distribution of copyrighted material. Napster will thus only be held vicariously liable when it fails to affirmatively use its ability to patrol its system and preclude access to potentially infringing files listed in its search index.\(^{25}\)

As stated earlier ‘Napster’ is by no means the first company to have developed technology that affected copyright law. Neither has ‘Napster’ been alone in using this new form of copyright theft. Start-up companies such as Scour.com and MP3.com have also been sued by copyright owners for the alleged ‘theft’ of copyrighted music. All these companies have the same thing in

\(^{24}\)RIAA v Napster
common though. They are forcing change in the music industry by launching music distribution systems that challenge the status quo\textsuperscript{26}. But music is not the only industry that maybe affected by this new technology and any company or organisation that deals with the provision of information will have to reinvent itself or else be consumed by the advancement of technology.

\textsuperscript{25} ibid.

\textsuperscript{26} RIAA v Napster
Chapter Two:

‘The history of Common Law Intellectual Property’
CHAPTER TWO: The History of Common law Intellectual Property

The previous chapter dealt with the more recent issues relating to the problems of advancing technology and the problems that these advancements may spell out for information based industries. This chapter will now deal with a wider historical background to intellectual property protection vies a vies the pace at which technology has advanced at a much greater degree than developments in the law and the different methods that have been employed by more developed economies in an attempt to keep the policing of information abreast with technology.

Copying is an old practice dating back many centuries. The development of copyright law has been a continuing response to the challenge posed by new technologies for the reproduction and distribution of human expression\(^1\). Since the end of the 19th century for example copyright in the United States has adapted to assimilate photography, motion picture and sound recording\(^2\). The first law regulating the copying and distribution of information enforced in the United Kingdom was one passed by the British parliament that secured a monopoly to the Stationer’s Company over all printing as a means of controlling the spread of Protestantism and the Reformation\(^3\). This statute was a culmination of a series of events that began with the introduction of the then modern printing press in England in 1476 which allowed the large scale reproduction of books for the first time. This new technology enriched publishers and booksellers and also created competition among the same publishers. This competition over the right to publish a given text also introduced new issues involving monopoly and piracy\(^4\). Of great importance was the fact that this new technology was seen by the catholic Crown as a

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\(^2\) This issue will be dealt with in greater detail later in the chapter.

\(^3\) Nasri Z. William, Crisis in Copyright, Marcel Dekker Inc., New York & Basel 1976 p.1

\(^4\) E. Eisenstein, the Printing Revolution in Early Modern Europe 84 (Canto ed. 1993)
threat because it was thought that from then on there would be wide spread dissemination of works advocating religious heresy and political dissent\(^5\). In 1534 a royal decree was passed prohibiting anyone from publishing without a license and approval by official censors. In 1557, the Crown conferred a publishing monopoly on the Stationer's Company. Printing was now subject to the Star Chamber and all published works had to be entered in the Register of the Stationer's Company and in the name of some particular member of that company, who forever after had the sole right to publish that work\(^6\). The statutory copyright was therefore enacted more as a tool for censorship and trade regulation and not as a tool for the protection of the rights of authors. In 1694 this official license to publishing expired leaving the Company unsheltered by the monopoly that they enjoyed and vulnerable to competitors. The British parliament heeded the Company's predictions of economic disaster and anarchy and in response to their lobbying effects passed the first Copyright Act. The Statute of Anne of 1710 was the first law to recognise the rights of authors It was and still is the prototype of all subsequent copyright legislation in almost every nation whose laws are historically linked with the United Kingdom\(^7\).

Zambia is not the only nation to have followed the lead of the British Copyright law. A perfect example of a nation that has had and continues to grapple with the problems of copyright protection is the United States of America. When the United States of America was still in its infancy it too enacted copyright laws based on the Statute of 1710. However, even they were faced with a variety of problems. From being the largest infringers of Intellectual Property at the turn of the century the Americans have at the beginning of the new millennium being the

\(^5\) Craig J. & others op. cit., p.14  
\(^7\) op. cit.
champions of the protection of such labours. When the question of how this dramatic change has come about one needs to begin by analysing the history of American copyright laws.

The Americans had inherited, from the British, a set of mixed and often contradictory messages about the purposes of copyright⁸. On the one hand copyright was viewed as an instrument in the service of the public interest whilst on the other hand it could be considered the natural right of those who engage in artistic creation. nevertheless the Framers of the American Constitution recognised the need for a uniform federal law for copyright and patents. They thus included in their Constitution a provision relating to copyright stating that

"Congress shall have Power...to promote the progress of science and useful arts, by securing for limited times, to authors and inventors, their exclusive right to their respective writings and discoveries."⁹

In 1790 the first federal copyright act was passed, and with its provisions modelled on the Statute of Anne it set the tone for future statutes. The 1790 statute provided protection to authors and their assigns for two 14 year terms - an original and a renewable one. This protection was extended to maps charts and books¹⁰. It can be noted, therefore, that this Act was in line with the technology of the day and for a while served its purpose. But technology took on such a momentum of its own that by the turn of the twentieth century the US President called for a complete revision of the copyright laws to meet modern conditions. The result was the Copyright Act of 1909 which survived the first half of the century but which eventually had to be replaced by the enactment of the current 1976 Act.

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⁹ The United States of America Constitution, Article I, Section 8, Clause 8.
¹⁰ op. cit., Craig J. & others p.18
As mentioned above, copyright laws were initially enacted to protect the only intellectual property of the day. However, by the turn of the twentieth century it was clear that the wave of technological advancement that had swept the nation required that the law be dramatically altered.

Over the last few centuries of the existence of copyright law there has been successful negotiation of a series of crisis precipitated by changes in information technology by adapting itself to new technological circumstances\textsuperscript{11}. The task of intellectual property protection has, however, always been difficult, attempting as it does to achieve a finely tuned balance providing authors and publishers enough control over their work that they are motivated to create and disseminate, while seeking to limit that control so that society as a whole benefits from access to the work. The challenge was well stated by a British judge when it was held over two hundred years ago that

"We must take care to guard against the two extremes equally prejudicial; the one that men of ability who have employed their time for the service of the community, may not be deprived of their just merits and the rewards of their ingenuity and labour; the other, that the world may not be deprived of the improvements, nor the progress of the arts be retarded."\textsuperscript{12}

Since this holding was made the world has changed enormously moving from a generally agrarian society to one dependent, even in the case of Zambia, on information and technology.

\textsuperscript{11} ibid., p.44
\textsuperscript{12} Sayre v. Moore 1785
Yet many of the fundamental concepts of Common Law intellectual property have with some success weathered substantial changes in technology and society.\textsuperscript{13}

The history of 20th Century Intellectual Property law is replete with controversies arising from a recurring fact pattern - whether the scope of rights granted to use intellectual property enables the user or licensee in the case of a licence to exploit that new technology that was not yet invented at the time the law was enacted.\textsuperscript{14} Over its several centuries of existence, copyright law has successfully negotiated a series of 'crises' precipitated by changes in information distribution by adapting itself to new technologies. During this time intellectual property law has had an instrumental role in the promotion and more importantly creation of a vast array of information based works resulting in vibrant markets for intellectual property markets even in the third world albeit not in the proportions to be found in the West. But these same laws have also defined limits on the protection in order to facilitate the public interest in and benefit from shared information proven itself flexible enough to deal effectively with the new media of photography, motion pictures, and sound recordings.\textsuperscript{15}

For example even though individuals had been able to listen to music played on gramophones and other electrical devices in the privacy of their own homes for decades this had only been possible on pre-recorded discs and tapes. However, not too long ago the possibility of home recording became a reality which music producers tried in vain to restrict. In 1988 a manufacturer of tape recording and playback machines was sued when they developed a

\begin{footnotes}
\item[13] The Digital Dilemma website
\item[14] Examples range from the case of Manners v Morosco (252 U.S. 317 (1920)) where the issue at hand was whether a grant of performance rights included after motion picture was invented, the right to make a motion picture based on the dramatisation of the initial work; to Muller v. Walt Disney Prods (871 F. Supp. 678 (S.D.N.Y.)) where the question at hand there was whether grants of the right to produce either a motion picture or program before the introduction of the Video Tape Recorder included the right on the part of the motion picture studio to deal in video cassettes and video disks.
\item[15] Craig J. & Others p 44
\end{footnotes}
machine that had a twin-deck tape recorder\textsuperscript{16}. In their promotional literature Amstrad had advertised the virtues of their new technology but warned that “The recording and playback of certain material may only be possible with permission. Please refer to the Copyright Act 1956, and the Performers’ Protection Acts 1958 - 1972”. The British Phonographic Industry which has a similar standing in the United Kingdom as the Recording Industry Association of America asserted, however, that this new technology “authorised” infringement and that Amstrad were joint offenders together with any persons that who used an Amstrad machine for the purpose of making an infringing copy of a recording in which copyright exists. Thus this constituted infringement of its members’ copyright particularly in the music genre of pop music. Furthermore it was argued that Amstrad were inciting others to commit these acts of infringement and that they were also negligent by their failure to prevent, discourage or warn against infringement. Amstrad applied for an declaration of non-infringement. The BPI applied for Amstrad to be restrained from selling of the recorders. The Court held that Amstrad could not be held liable for the acts of any and all those that purchased their machines. While Amstrad conferred on the purchaser the power to copy it did not grant or purport to give to any of its buyers the right to copy.

The importance of this case is that it highlighted the dilemma that the Courts may have when they are faced with a new technology. Whilst they have to protect the rights of copyright holders they could not at the same time ignore the advancements that technology has brought about.

Similar holdings were made in cases that have been brought before US Courts. In \textit{Universal City Studios, inc. v Sony Corp. of America}\textsuperscript{17} the appellants, producers and copyright owners of audio-visual materials brought a copyright infringement claim against the defendants who were


\textsuperscript{17}
manufacturers of the Betamax, a video recorder and Betamax tapes. The appellants argued that home video recording of their copyrighted works constituted infringement and that the defendants were liable as direct, contributory and/or vicarious infringers. From this case came the legal precedent called "Time Shifting". Time shifting, the court ruled, is a concept where the consumer transfers information from one medium to another for the convenience of playing it at a later time or at another place. This was ruled a fair and legal use. The Court thus found that the great majority of users did not use these devices to steal content but simply used them as a tool of convenience\textsuperscript{18}.

As both cases above have highlighted established industry has in the past attempted to muzzle inventions that threatened the position of these copyright owners. However, the courts both in the United States and in the United Kingdom have till the 1980's enforced the rights of individual consumers while at the same time delimiting the monopoly that copyright owners may have enjoyed. Each new wave of technology stresses the court systems to apply copyright law to ideas and businesses that could never have been anticipated\textsuperscript{19}.

As mentioned above, however, the role of intellectual property law has always been to maintain the careful balance between acknowledging the creative efforts of members of society whilst at the same time allowing society benefit, albeit justifiably, from any such inventions or creations as they come into the world.\textsuperscript{20} But this carefully crafted balance maybe in danger of being upset by the emergence of the newest player in the technological field. As the term 'copyright' itself suggests, the basic concepts of this body of law are rooted in the

\textsuperscript{17} 464 U.S. 417(1984)  
\textsuperscript{18} http://www.mp3newswire.net  
\textsuperscript{19} For example as noted above history has shown that nearly every new media device has faced legal challenges that have only been temporary setbacks. From Video tape recorders to satellite TV the
circumstances of print-on-paper information technology and the relationship between this technology and intellectual property law is a complex one. Advances in technology help to bring about changes in the life of the society which in turn help generate demand for new legal regimes. As noted earlier, the genesis of intellectual property law as we know it today was a result of the need to bring some sort of order to the chaotic economic and cultural conditions that caused in part by the spread of the technological advancement of that era. Since the crisis of that period revolved around the manipulation of and the distribution of actual physical books it can be argued that the laws that developed would be organised around the concept of publication; publication was the act which caused copyright protection to attach, and the essential right of the copyright owner was the right to regulate subsequent publications. Furthermore, even the concepts that evolved around limitations and exceptions to the "copyright" developed from the assumption that control over publication is central to copyright ownership and protection.\textsuperscript{21} It is this concept of publication that the jurisprudential superstructure of copyright doctrine is based on. The development of digitisation of information has, however, lead to the questioning from various quarters of the continued relevance of traditional copyright law. Just as the invention of the printing press lead to great changes in the way that information was distributed over three hundred years ago, the digitisation of information has today shown a potential for social transformation as rarely seen before in modern times.\textsuperscript{22}

As stated in the previous chapter it is not only the digitisation of information that has lead to this threat of traditional copyright norms. The impact of the development of digital networks cannot

\textsuperscript{20} \url{http://www.mps.com}
\textsuperscript{21} op. cit., Craig J. and others, p. 45
\textsuperscript{22} ibid.
be ignored. If all the digital devices (such as computers) were free standing rather than interconnected, the impact[act of digitisation - though still significant - would be nonetheless limited. This, however, is not the case. Today an increasing number of these devices are linked by wired and more importantly in the third world by wireless connections to form small and large networks over which digitised information can be exchanged without any need for the transfer of a physical object. In the network environment, "packets" of information are routed from the memory of the sender's computer to that of the receiver's, either directly or more commonly, by way of a series of electronic way stations (servers and routers). The existence of these networks depends on the wide acceptance of common standards governing how information is to be broken down, sent and reassembled. Collectively, these linked networks form what is now widely known as the Internet.23

The growth of the Internet, which has helped fuel the problem of digitisation, has been fast and quite exceptional. What was once a closeted technology patronised by a small number of computer scientists and other devotees of digital technology has been transformed into the newest mass medium24.

Despite the life of the Internet spanning almost two decades and the era of the computer having been even longer, legislative work in this arena has even in the West been slow and fragmented. The principle legal problems of computers for example could have been dealt with a long time ago. That they were not is a sign of the indifference that was common among legal systems to the potential for change that the concept of digital technology and its offshoots

23 K. Hafner & M. Lyon, Where Wizards Stay up Late: The Origins of The Internet (1996)
24 Even in the Third World the growth of the Internet cannot go unnoticed. In Zambia there are currently three Internet service providers with a total client base of some 6000 accounts. In a country with an economy as underdeveloped as Zambia's this highlights the popularity of the medium. Even
could bring. Furthermore the fact that whole industries have mushroomed in the teeth of the high degree of uncertainty as to the nature and the extent of legal protection against unauthorised use and copying would suggest that, in commercial terms, intellectual property rights, were not as valuable as the market entry of other good products have been at the right time. For example one of the first major pieces of research in the area of intellectual property and digital technology that was conducted in the United States of America was that undertaken by the Information Infrastructure Task Force which issued a report entitled *Intellectual Property and the National Information Infrastructure* sometimes refereed to as the ITTF White Paper. This report was carried out only in 1995. The Report contained interpretations on how existing copyright laws could be applied in the network environment and proposals for how the law could be updated to better serve the objective of securing intellectual property rights in cyber space.

Of course other studies have been conducted since then but this situation has highlighted how even Western law has been sluggish in its response to the lightening speed developments of digital technology. The response in Africa and the rest of the developing world cannot have been any better faced with a multitude of economic woes and political instabilities.

However, with the rapid growth and development of the mentioned technologies and with the developing case law surrounding Internet companies the West and very soon the rest of the world has had to rethink its intellectual copyright laws in order to survive this great social and probably legal upheaval.

Chapter Three:

‘Comparisons of Intellectual Property Regimes’
CHAPTER THREE: Comparisons of Intellectual Property Regimes

The history of intellectual property law in the West has been very closely linked with technological advances. This has been the case even though technology has always been several steps ahead of the legal changes. This has not, however been the greatest influence. For example in the United States of America the growing economic importance and political influence of the copyright industries on the one hand and various powerful competing ideologies of intellectual property on the other cannot be ignored.\(^1\)

Any discussions on this new digital technology and the growth and development of the Internet must be considered on a global context. Laws and Intellectual Property practice differ from country to country and will likely remain different despite efforts at harmonization. Cultural attitudes towards intellectual property and the premises on which laws are founded may also differ. For example as has been noted already, the classically dominant view of both US and British copyright law is that copyright is seen as a means by which the general welfare is advanced through the provision of economic incentives to both creators and disseminators of new works of intellect. In much of Continental Europe (the so-called “civil law” countries), however, the analogue of copyright is somewhat different. In France it is known as “droit d’auteur”, in Spain it is known as “derecho de autor” and in Germany it is known as “Urheberrecht”.\(^2\)

All these terms translate to the same thing – author’s rights. Thus in much of Europe intellectual property law has a notion that the creator of an artistic work (and potentially his or her progeny) has

\(^1\) Craig Joyce et al (Eds.), Copyright Law, Mathew bender & Co., New York, 1998, p.25
an inalienable right which protects both the artistic integrity of the work and the artist's interests against the unauthorized modification or desecration of the work which would damage the author's reputation. Thus just as in the "common law" jurisdictions the provision of protection to authors and their successors conventionally is justified as a means to promote the general welfare, in "author's rights" jurisdictions the protection literary and artistic property is justified predominantly in terms of authors' inherent entitlements. Thus in civil law countries an author is deemed to have a moral entitlement to control and exploit the products of the author's intellect, including the right of association of the work with the author's name and the right to prevent the mutilation of the author's artistic vision. Likewise, many civil law jurisdictions balk at the practice (familiar in common law countries) of extending legal protection to the works of "corporate authors" as such insisting that to be eligible for protection, a creation must be designated as the work of one or more individual authors.³

The situation in Africa and in other less developed nations of the world has been somewhat different. Through out Africa laws have been inherited from colonial masters at the attainment of political independence and amendments made have been done in the wake of developments in the more developed economies. This has meant that more often than not the poorer countries currently have in use laws that may not have fully appreciated the peculiarities present in such poorer countries. There is a danger in this trend being continued in many parts of Africa and the Third World with the development of digital information and the Internet. This is because as technology grows the physical barriers that hampered the transfer of information, both legally and illegally, have been reduced so much so that today the municipal laws of nations are increasingly subject to

² ibid. p.26
international pressure and partly as a result the future paths of nations may converge. This convergence may not be to Africa's advantage.

For example in feudal China Confucian literary and artistic culture focused on interaction with the past and discouraged bold innovation. Similarly, after 1949, the new socialist legal culture of the People's Republic of China proved hostile to the development of a system of private proprietary rights in works in the mind. More recently, however, as a result of intersecting foreign diplomatic pressures and domestic economic developments, China has adopted a copyright law which is virtually indistinguishable from that of Western nations, along with a set of administrative and judicial institutions to back up the law's mandates.

International pressures have brought about the great change in Chinese Intellectual property law regime. Furthermore as of 1992 China became a party to the Berne Convention for the Protection of Literary and Artistic Property the major international treaty in the field. Though problems remain with respect to copyright law enforcement in China, especially where works of foreign origin are concerned, the transformation of Chinese copyright law over the last decade and a half is a noteworthy development and testimony to the strong forces promoting the convergence of national laws governing literary and artistic property.

The example of China also shows how much copyright tradition differs from country to country. An American scholar suggested that in China and most Asian countries the concept of intellectual

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3 Boytha, Whose right is Copyright?, 6/7 GRUR It'l 379 (1989)
4 Craig Joyce et al, ibid.
property in creative expression is completely foreign and to some even sacrilegious. Acts of individual expression are seen as rooted in the contributions of ancestors and are in "the air" – the person expressing them is simply doing what is in the wind. What is regarded in the United States as an individual act of creativity would be regarded there as one person playing the role of scribe for the ancestors and other contemporaries. As a consequence one who expresses an idea has no right to it – it is a social expression, not an individual one, and part of the process of passing and extending a society’s cultural legacy.

The situation in Zambia and other parts of the third world is probably more in tune with what has transpired in China than what pertains to the Western World. Traditionally, Africa has not had the culture of intellectual property protection akin to that in the United States or Britain. As with many of our other laws, our Intellectual Property laws here have been a mere hand-me-down from the former colonial masters and so have not been fully appreciative of the cultural background of the continent. As in the case of China, knowledge was not something that was upheld as belonging to an individual but should be shared, passed on by word of mouth from one generation to another. Furthermore one of the most important requirements of copyright law, that to be protected a work must be recorded in writing or some other form⁹, is clearly at variance with what has been the traditional format of information in much of Africa.

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⁶ Craig Joyce et al, ibid., p. 28
⁷ Professor Michael Oksenberg, Stanford University.
⁹ Copyright and Performance rights Act, Cap 406 of the Laws of Zambia, Section 8(3)
Thus Intellectual property Law as practiced in Africa today is only a replica of that practiced in the West. As is the practice in developed common law countries works of authorship are now viewed as commodities to be freely traded under the control of whatever person (or corporation) that holds current title to it.\textsuperscript{10}

The above discussion on the variations of laws from nation to nation and also from region to region matter for several reasons in this new age of digital technology and the growth of information networks. First Intellectual Property laws and attitudes obviously have consequences that go beyond national borders. For example in 1994 the United States of America threatened to brand China as a copyright pirate and initiate a “Special 301” investigation which is a government action that can lead to trade sanctions unless China cracked down on copyright violations leading to pirated software, musical CDs, and movies in various formats intended for sale in the United States of America.\textsuperscript{11}

Secondly the existence of networks with international scope makes the issue of international variation a matter the average user can face everyday. Even the unsophisticated computer user can access the information resources of countries around the world with little difficulty\textsuperscript{12}. The author of this paper was able to obtain vast amounts of information from the Internet at very little cost to himself and none of the costs going to payment of any royalties for the information collected. As a consequence practices required or prohibited in one country maybe circumvented by actions taken over the Internet in another country.

\textsuperscript{10} ibid.
\textsuperscript{11} ibid.
\textsuperscript{12} ibid.
Thirdly, jurisdictional problems arise in enforcement of laws as cyberspace blurs the concept of the location of an action internationally or even within a federal state. For example two operators of a computer bulletin board in Milpitas, California were arrested for among other things distribution of obscene material on the basis of an indictment made by a Grand jury in Tennessee. This gave rise to what constitutes "community standards" when the geographical basis for the community is blurred by cyber space.\textsuperscript{13}

The problems are difficult in part because of the influence of international data networks is not easily controlled on a national basis. The Web is inherently international and cannot be divided by national lines. There is not now, nor has there ever been a "universal" copyright system: instead an author who wishes to protect his work abroad typically must look to the pertinent national laws of the countries where protection is being sought. These national laws are in turn stitched together by a series of international agreements prescribing the conditions under which countries must give recognition under their domestic laws to works of foreign origin. The earliest examples of such agreements were responses to the phenomenon of "cross-border" piracy. Beginning in 1827, a series of agreements among the various German states guaranteed what is sometimes called ‘formal reciprocity’ of protection. Subject to certain qualifications, this approach was the basis of a series of bilateral agreements, which eventually covered most of Europe and parts of South and Central America.\textsuperscript{14}

\textsuperscript{13} The United States of America v. Doyle (1994)
\textsuperscript{14} Craig Joyce et al., ibid., p.29
Obviously, however, the protection which such a network of bilateral treaties could offer authors in countries other than their own was far from comprehensive or systematic. It fell short of being a truly universal system and so from the middle of the nineteenth century European authors began to canvass for just such a scheme. Their goal was the establishment of a world-wide recognition that copyright is a natural and indefeasible right which arises from the very act of authorship itself. Soon the drive for "universal copyright" was substantially co-opted by publishers, for whom a strong international legal regime represented an important pre-condition for the development of a global market in books.\textsuperscript{15}

The Berne Convention for the Protection of Literary and Artistic Works was adopted in September 1886 to try to counter the traditional problems encountered in the protection of Intellectual Property on an international level. The current text of the Treaty is the Paris Act of 1971. The Convention is administered by the World Intellectual Property Organisation (WIPO), an intergovernmental organisation with its headquarters in Geneva, Switzerland. WIPO is a specialised agency of the United Nations system and it is with the director General of WIPO that Instruments of ratification or accession are deposited once a country has agreed to be a member.\textsuperscript{16}

Three main principles enshrined in the Berne Convention make the international protection of intellectual property protection viable. These are:

\textsuperscript{15} N.N. Feltes, \textit{Literary capital and the Late Victorian Novel}, (1994)
\textsuperscript{16} The Berne Convention for The Protection of Literary and Artistic Works, Article 1
I. National treatment which stipulates that the member states must accord to the works of an author from another member country the same rights as the former grants to works created by its nationals;  

II. That the rights and exercise of these rights shall not be subject to any formality;  

III. That the enjoyment of such rights shall be independent of the existence in the country of origin of the work.

These benchmarks of the Convention, even though they have their limitations, do provide a measure of protection to authors of works that are likely to be pirated outside the country of origin. Furthermore, as the Convention has evolved over more than a century, it has greatly improved the level of protection for copyright worldwide. This has been accomplished in two ways: first by the establishment of an international copyright regime, which is truly multilateral (rather than bilateral or regional) and secondly by introducing the concept of Convention minimum standards that supplement the principle of national treatment by setting a level below which member countries cannot go in extending protection to qualifying foreign works.

However as already mentioned digitisation and the development of the Internet has made traditional methods of Intellectual Property protection on an international level seem almost overtaken by development. For example in 1996 WIPO tried to deal with the issue of reproduction on the Internet at its Diplomatic Conference. The results of that discussion were however, rather

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17 The Berne Convention, Article 5(1)  
18 ibid., Article 5(2)  
19 ibid.  
20 Craig Joyce et al, op. cit., p.30
inconclusive. ‘Agreed statements’ which accompany the two treaties concluded in Geneva say only that

“the reproduction right... fully applies in the digital environment and it is understood that the storage of a protected work in digital form in an electronic medium constitutes a reproduction...” 21

The ambiguity of this statement is self evident but it must be noted that the term ‘storage’ has been understood by authors to mean the making of a permanent stable copy as would be the case on a computer’ hard drive. The WIPO treaties thus do little to resolve the question of how incidental reproduction in the network environment, one of the most pressing of issues in these developments, should be regarded by the law.22

It is obvious that many traditional methods of Intellectual property protection need to be changed. Other methods have to be employed in this fast changing climate and the third world, Zambia included, will have to undertake a drastic revolution in their Intellectual Property Regimes to take full advantage of this new direction in world economy. As copyright (and other forms of intellectual property) have become a larger component of world trade, however, poorer nations are put under great pressure to enforce stricter measures of Intellectual property protection. This pressure comes from the biggest economy in the world which only one hundred years ago was the greatest copyright infringer.
Indeed until 1891 the United States had no international copyright relations and in fact the U.S. publishing industry during the nineteenth century flourished on the basis of unauthorised pirated reprints of British "bestsellers". Furthermore it was not until major US publishing companies began to feel economic pressures from unregulated competition in the reprinting of British Books that the laws began to undergo changes.23

By the close of the twentieth century, however, The United States had become the biggest producer of intellectual property and so in turn had become its greatest champion on the international circuit. With the growth of the importance of international trade came the establishment of the World Trade Organisation as a result of the Uruguay Round of The General Agreement on Tariffs and Trade (GATT). The GATT also administers the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement).24 All states, which become members of the WTO further, become bound to a mutual recognition of a high level of Intellectual Property protection. This has meant that the powerful forces of international trade are now also being used in Intellectual Property law enforcement. The threatened trade sanctions that China was faced with are testament to this and also testament to the great importance that the United States attaches to intellectual property.

The forces against which undeveloped nations are under to develop their own Intellectual Property Regimes are thus great and indications are that we shall once again fall behind the more developed nations as the World steps into the digital age. But it is exactly this new development that presents

22 Craig Joyce et al. op. cit., p.460
23 J. Barnes, Authors, Publishers and Politicians: The Quest for an Anglo-American Copyright Agreement, (1974)
24 Annex 1C of The Marakesh Agreement Establishing The World Trade Organisation
all less developed countries with the opportunity to leapfrog into development because with digital technology and the growth of the Internet and the World Wide Web many traditional boundaries of permitted behaviour and the law are not distinct.

For example one of the proposals that have been put forward for the enforcement of intellectual Property laws has been the enforcement of laws via a country's server. Singapore, China, Saudi Arabia and even Australia are countries that have passed legislation requiring their countries' Internet providers to filter network content that may be against the morals or traditional laws of that particular country. Western countries would likely see this as an infringement on the rights of citizens of these countries to receive information freely and so not help enforce such laws.

Conversely, however, there are Web servers located in countries whose local laws lack respect for intellectual property laws if not actively encourage infringement that would otherwise be protected in other countries. With the development of the Internet it would be possible for those individuals who wanted to circumvent strict laws even in their own countries to use the servers in the countries with fewer legal restrictions. Such servers would work as 'offshore servers' and could severely undermine the Intellectual Property regimes of such countries that have strict enforcement policies.\textsuperscript{25}

Thus global uniformity in Intellectual Property laws more so than ever before is essential to the more developed nations whilst we in the under developed nations have at this moment in time the power, albeit limited though it may be, to alter the issues in our favour. This is the paramount

\textsuperscript{25} Digital Dilemma, ibid
question that must be answered by African and other third world lawmakers as the digital age overtakes the world both developed and underdeveloped.
Chapter Four

'Recommendations: Should Africa live in the shadow of the West?"
CHAPTER FOUR: Novel solutions to new dilemma

The previous three chapters have dealt with the growth and development of digital technology and also the growth and development of the Internet and the World Wide Web. An outline of the growth and development of Common law intellectual property law has also been provided with emphasis placed on the different periods in history that influenced major revisions in the intellectual property regimes in England The United States of America and other Common-law jurisdictions.

The last chapter has briefly dealt with the situation that pertains in Africa and other regions of little economic wealth vis-à-vis how the whole intellectual property regime has thus far been a replica of the system practised in the West.

In this chapter an attempt will be made to suggest whether a middle ground can be reached between two opposing but controversial viewpoints. The first of these viewpoints is that underdeveloped nations should continue to follow the legal advances and revisions that have been made in the West as a result of the digital age. This would mean, of course, that as with most other laws in use today the third world would not chart its own evolutionary course at this great juncture in the law of intellectual property.

The second viewpoint is that Africa, and the rest of the third world, should use this new technology in whatever way possible and not adhere to the dictates of the richer nations but instead develop a new intellectual property regime that adequately addresses issues pertinent to us. Granted intellectual property law is not the only branch of law affected in this way but as a total revolution of the legal structure is not possible we must grasp the opportunity for change
as and when it may present itself. The digitisation of information and the growth and development of the internet could be such an opportunity for change that may not be manifested in this way again.

The origins of common-law intellectual property law date back almost four centuries and over the course of time revisions to the legal regime have been conducted relatively cautiously. This is because, as mentioned earlier, previous advances made in technology have often outpaced the law only by a narrow margin. In contrast, however, the technological advancements made in the last two decades of the twentieth century and continue to be made in the present one, have been swift and more far reaching than any made in the history of the world. With such a fast pace of change, the law even in the West, has not had the opportunity to effectively revise itself and deal with all the problems that arise from this new technology.

The Committee on Intellectual Property Rights in The Emerging Information Infrastructure, a special committee constituted to look into the problems that arise from the developments of this ‘digital dilemma’, had this to say on any revisions on the intellectual property law regime practised in the Untied States:

"The committee has been cautious about major legislative initiatives because it is early in the evolution of digital intellectual property and much remains unknown—both because of the yet-to-come evolution in the information industries, user communities, and technologies and because of the need for research and data collection to improve knowledge and understanding of the issues. Under such circumstances, major changes in legal regimes and public policy are ill-advised."1

Despite these remarks made by the committee it was felt, however, that major adaptations would have to take place to ensure sufficient protection for content creators and rights holders, thereby helping to ensure that an extensive and diverse supply of Intellectual Property is available to the public. Further more it was felt that major adaptations would also be needed to ensure that the important public purposes embodied in copyright law, such as public access, would be fulfilled even in the digital context.²

Three technological trends—the ubiquity of information in digital form, the widespread use of computer networks, and the rapid proliferation of the World Wide Web—have profound implications for the way intellectual property (IP) is created, distributed, and accessed by virtually every sector of society. The stakes are high in terms of both ideology and economics. Not surprisingly, much discussion of these issues has occurred in the United States Congress, among stakeholder groups, and in the press. But the effects of the information infrastructure extend beyond these institutions; as never before there are also important and direct effects on individuals in their daily life.³

The information infrastructure offers both promise and peril: promise in the form of extraordinary ease of access to a vast array of information, and peril from opportunities both for information to be reproduced inappropriately and for information access to be controlled in new and problematic ways. Providing an appropriate level of access to digital IP is central to realising the promise of the information infrastructure. Ensuring that this appropriate level of access becomes a reality raises a number of difficult issues.

² ibid.
As mentioned in Chapter One several problems exist with the use of the digital information technology. One of these problems is associated with reproduction that occurs whenever the technology is being used. The 1998 Digital Millennium Copyright Act (DMCA) of the United States of America dealt with this and other related problems.

The DMCA permits the owner of a computer, which lawfully contains an authorised copy of a computer program to make or authorise the making of an automatically generated temporary copy of that program in connection with the repair or maintenance of that computer.\(^4\)

Furthermore the DMCA gives service providers a “free ride” in connection with so-called “transitory digital network communications” such as e-mail service. As long as someone other than the service provider initiated the transmission and chose its recipient, and the service provider does not interfere with its content, no liability can attach to the service provider in connection with that transmission.\(^5\) This includes liability in connection with transitory reproductions so long as they are not maintained on the system or network for a longer period than is reasonably required for the transmission, routing or provision of connections. The DMCA also confronted the liability of service providers who also provide ‘hosting’ services by allocating server space to clients who wish to maintain and make information available to others typically by way of the World Wide Web.\(^6\)

With reference to service providers, in addition to information transmission and ‘web hosting’ activities, the DMCA also deals with performing ‘systems caching’ – the storing of local copies of the contents of frequently visited remote sites to speed up or simplify user access and

\(^3\) ibid.
\(^4\) The DMCA, Title III (The “Computer Maintenance Competition Act”) codified at S.117(c) of Title 17
\(^5\) The DMCA, Title II (The ‘Online Copyright Infringement Liability Limitation Act’)
In the United States the law has taken an aggressive approach to anti-circumvention. The DMCA two kinds of anti-circumvention regulations. The first kind—the access-control provision—generally outlaws circumventing technical protection measures used by rights holders to control access to their works. Simply put, it is illegal to "break" (i.e. circumvent) the technical measures, such as encryption, that rights holders use to control access to their work.⁹

The second kind of anti-circumvention regulation—the "anti-device" provisions—generally outlaw devices that are designed or produced primarily for purposes of circumventing technical protection measures, have no commercially significant uses other than circumvention, or are marketed to circumvent technical protection measures. One of the anti-device rules outlaws devices that circumvent access controls; the other outlaws devices that circumvent use or copying controls ("access" concerns whether you can read the document, "use" focuses on what you do with it, for example, print or make a copy of it).

These provisions are, on their own terms, plausible steps providing prophylactic measures aimed at protecting intellectual property. The access-control provision does its part by defining a new legal wrong—breaking the protection mechanism—a step quite distinct from any illegal copying or other use of the content being protected. The anti-device provisions are analogous to similar laws concerning cable television de-scramblers, working on the presumption that it is inappropriate to manufacture devices whose intended purpose is to enable people to break the law.¹⁰

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⁹ http://books.nap.edu/html/digital_dilemma/cap5
¹⁰ ibid.
As Congress realised, however, problems emerge from the details. First, Congress recognised that circumvention can be done for entirely legitimate purposes, such as encryption research, computer security testing, and achieving interoperability for computer systems. In recognition of this, the access-control provision is subject to seven rather complicated—and at times ambiguous—statutory exceptions that permit circumvention for purposes of the sort noted. These exceptions may not, however, exhaust the full range of legitimate purposes for bypassing technical protection systems. The DMCA as written is inconsistent and unclear as to whether circumvention is permitted to enable fair use, though legislative history suggests that Congress intended the preservation of fair use. Future revision of this law should fix this inconsistency.

Second, Congress was apparently concerned about the potential for technical protection mechanisms to disrupt fair use and other non-infringing uses. The concern is simple: If you can't get access to content, you clearly can't make fair use of it. As a result Congress tasked the Librarian of Congress with a kind of watchdog role. The DMCA requires the Librarian of Congress to determine:

"whether persons who are users of a copyrighted work are, or are likely to be in the succeeding 3-year period, adversely affected by the prohibition under subparagraph (A) in their ability to make non-infringing uses under this title of a particular class of copyrighted works. In conducting such rulemaking, the Librarian shall examine:

(i) the availability for use of copyrighted works;

(ii) the availability for use of works for non-profit archival, preservation, and educational purposes;
Recommendations: Should Africa live in the shadow of the West?

Thus far this chapter has dealt with the possible solutions that have been provided in the United States of America after vast amounts of research has been conducted on the issues at hand. The example of the situation as it unfolds in the United States provides showcases perfectly how the revision of a country’s legal regime may be used to combat problems that may be encountered due to technological advancements. The response of the third world and Zambia included is to ‘wait and see’ and to follow and merely duplicate what has been formulated in the more developed countries. However, can we continue to depend on this line of thinking without causing to ourselves any level of damage?

As mentioned above the current position is that a nation that infringes the intellectual property rights of citizens of other, more powerful countries is at risk of having trade and other sanctions imposed on it much as China has suffered. It must, however, be remembered that on the other hand there may be graver consequences of rigidly enforcing unrealistic laws. A blatant example that rears its ugly head is that of the global health crisis that has resulted from the AIDS pandemic. The explosive controversy over the pricing and distribution of patented AIDS drugs are seen by some scholars as a death knell for all AIDS sufferers on the continent.13

The multinational pharmaceutical companies are embroiled in a public relations nightmare. Though they have slashed the prices of these and other related drugs almost thirty such

companies have filed suits to prevent South Africa from locally producing or importing cheap
generic knockoffs.\textsuperscript{14}

Clearly there is a dilemma caused by the need to preserve an intellectual property regime that
for several centuries has fostered the creativity of artists and inventors mainly in the west in the
face of various acute health care and development problems faced in the third world. Indeed it
is argued that what is needed is a new intellectual property law framework for the 21\textsuperscript{st} century
that better balances the interests of artists and inventors – critical as their contributions to our
lives have been – with those of users and the public both at a national and at an international
level.

The law of intellectual property has grown tremendously in the west due to the realisation of the
importance and value of information based products. Granted in Zambia the development of
similar laws has not been nearly as dramatic and our current intellectual property regime barely
protects rights holders adequately there is still a need to revise existing laws to make them
more practicable and effective in our socio-economic climate.

\textsuperscript{14} ibid.
Conclusion

This study has been an attempt to look into what may be the future of global intellectual property regimes. At sporadic and unrehearsed intervals history avails us with opportunities to better our present and future conditions. In the law of intellectual property such opportunities have been presented to the west at various times and they have taken full advantage of them and conducted revisions of their regimes to the betterment of their societies. These revisions have been novel and have chartered a course of development not imagined by the legal framers at work in such societies.

The last two decades of the twentieth century have seen the development of a new technology that has challenged this system. Despite the rapid growth of this new technology and probably also because the full potential of the Internet has not been reached the west has been somewhat cautious in effecting great changes in their intellectual property laws. Such legislative advances as the passing of the 1998 Digital Millennium Copyright Act of the United States of America and the recognition even by the World Intellectual Property Organisation (WIPO) of the need for the effecting of change due to the growth of the Internet and computer networks highlights the tremendous effect that these technologies have had and continue to have on all intellectual property law regimes.

Being the largest holders of copyright holders and also being in the forefront of scientific and technological advancements the US has been the country with the most litigation in this sector of the law. The case against Napster and other similar Internet based companies has set the
stage for the Court's handling of intellectual property law infringement in the virtual world of the Internet.

US treatment of China has set the stage for dealing with errant nations in the digital environment and the effects of the actions of one country on the intellectual property laws of another.

Finally in light of the above discussion, the third world has now before it the opportunity to effect great social and economic changes both in terms of the advances of technology on the global scene and also with these very same advances that could bring a world of information right to the doorsteps of information users.

Whilst piracy and other forms of IP infringement are not been advocated for, it is advanced that Zambia and the rest of the third world now has the chance to revise various aspects of their legal regimes to make their countries better suited for the giant leap that will be taken into the digital era that is to come.
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