

**SOFTWARE COPYRIGHT PROTECTION IN KENYA
THE LAW AND PRACTICE**

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**A RESEARCH PAPER SUBMITTED TO THE FACULTY
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Declaration

I, Faith Wanjiku Gichuhi, declare that, this research report on “Software Copyright Protection in Kenya” is a result of my entire effort and has not been submitted to any other institution of learning for any form of academic award.

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Certification

This research paper on “Software Copyright Protection in Kenya” has been supervised by me and is ready for submission.

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Date: 4th Dec 2010

Dedication

I dedicate this piece of work to my family Mr. John Gichuhi Kanyi, Mrs. Veronica Gichuhi, Ann, Martin, Catherine, Harun, Joseph, Jeff, Alvin, Gloria and Sharon for the great inspiration, encouragement, spiritual guidance and financial support in my academic life.

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CHAPTER ONE

Introduction

1.1 Background

Software is a computer program, which provides the instructions which enable the computer hardware to work. System software operates the machine itself and provides the interface to the computer and also controls basic operations like saving and printing. Examples of system software are operating systems and programming languages. Application software on the other hand such as spread sheet or word processing programs, provide specific functionality. System software enables the application software to interact with the computer. Software is a form of intellectual property covered under software copyright. It has its origins in written material but it possesses a further quality of functionality that distinguishes it from other written material.

Software, being a creation of mental ingenuity, and having its foundation in the application of intellectual skill, labour and judgment merits intellectual property protection like any other product of intellectual creativity. The relevant branch of intellectual property law that encompasses software protection is the law of copyright. Copyright subsists in practically every form of original work, within the meaning and subject to satisfaction of the statutory requirements.¹ Copyright protection, in Kenya, is regulated by the Copyright Act of 2001.

The Copyright Act of 2001 of Kenya defines a computer program as a literary work that can be accorded copyright protection. Copyright provides its holder, a right to restrict unauthorized copying and reproduction of an original expression² such as literary work,

¹ S. 5 the Copyright Act 2001

² Plix Products Ltd V Frank Films

movie, music, painting and software. Software can be protected under the realm of copyright. The current provisions for software copyright are in the Copyright Act of 2001.

The immense growth in the information technology sector specifically in software design and development forms the basis for the need for software protection, which has also grown in magnitude. The inadequate protection of software works is a disincentive for software developers, whose ultimate effect is to hinder the development of the information technology sector of an economy. Consequently, the current debate focuses on the efficacy of the current legislative framework in effective implementation and protection of software in Kenya.

It is the object of this research to examine the pertinent legal and practical issues relating to software protection which include the software material that can be protected, the rights of copyright holders in software and the effectiveness of the current legislation in protecting these rights. The research further focuses on the impact of software piracy on the growth of the information technology sector in Kenya. The ability of the government to enforce the laws that govern software copyright is also considered. The study covers other avenues of strengthening copyright protection and enforcement in Kenya as well as the institutional framework for software protection in Kenya.

1.2 STATEMENT OF THE PROBLEM

In recognition of the extraordinary nature of software as compared to other literary works, there is an intrinsic need for a more comprehensive legislation governing its protection under the ambit of copyright law. The fast growth of the information technology industry has increased the significance of software protection. With the rapid pace of technological change and advancement in computer software, the need for comprehensive protection becomes more apparent. Software developers, users of software, policy makers, the judiciary

and other stakeholders have had trouble determining what should be protected and what does not require protection. This is both from a moral and legal perspective. The economics and morality of the matter is that developers of software should be able to reap the benefits of their hard work and the legality being that software like any other property requires legal protection. There is limited contemporary literature in the area of software protection with specific emphasis on Kenya, which creates the need for a critical study in the area.

1.3 RESEARCH OBJECTIVES

1.3.1 The General Objective

The general objective of the research is to identify the weaknesses or loopholes in the policies and laws that govern software copyright in Kenya and make recommendations to remedy the same.

1.3.2 The Specific objective

1. One of the specific objective of the research is to provide contemporary literature in the area of software copyrights in Kenya.
2. The research is also to analyze the law and practice on enforcement of software copyright protection in Kenya
3. Another specific objective is to make recommendations to protection of software copyright

1.4 RESEARCH QUESTIONS

The research is intended to answer the following questions;

- a) What software material can be protected by copyright law in Kenya?
- b) What rights accrue to a software copyright holder in Kenya?
- c) How adequate is the current legislation to protect the owners of software?
- d) What are the failures or loopholes of the existing legislation that render it inefficient in protecting owners of software.

- e) What is the impact of software piracy on the growth of information technology sector?
- f) Is the Government able to enforce the laws that govern software copyright?

1.5 HYPOTHESIS

- a) A comprehensive regime of software protection would act as incentive and would spur innovation among software developers as they are assured returns and their investments.
- b) The government plays a crucial role in the protection of software hence more active involvement by the government through policy making and enforcement measures would directly be beneficial to software industry.
- c) The prevalence of software piracy in Kenya is due to limitations and legal provisions and enforcement and would greatly reduce if more strict and punitive policies and regulations were put in place.

1.6 SIGNIFICANCE

- a) A critical analysis of the inadequacy of current copyright legislation in protecting software may inspire policy and lawmakers into creating a better regime of protecting software. This would in turn encourage growth and innovation in the information technology industry specifically in the area of software development since software developers would be assured of returns on their investments.
- b) There is need to educate the public on the necessity of software protection and the benefits that accrue as a result. The study would provide literature on the issue. Availability of literature on the subject of software protection will create awareness or sensitize the public on intellectual property rights with specific regard to software copyright.

1.7 LITERATURE REVIEW

Computer is a phrase that is capable of precise definition but is usually taken to include computer programs, databases, preparatory material and associated documentation such as manuals for the users of the programs and for persons who have to maintain the programs³.

Computer software is extremely vulnerable to duplication. Software is the illegal reproduction and distribution of software applications whether for business or for personal use. Unauthorized copying of software can deprive developers of a fair return for their work, increase prices of software and inhibit the development of new software products as it threatens to rob software developers of their incentive to keep coming up with new software.

Copying can be classified into literal and non-literal copying. Literal copying involves exact duplication of expression, but is generally applied to duplication of code. Non-literal copying involves creating a work that duplicates the functionality without actually copying of code. This involves copying the structure of the work⁴. Non-copying is hard to prove as exemplified in the case of *Whelan Associates –V- Jaslow Dental Laboratories, Inc.*⁵. In this case, it was established that, the plaintiff must prove similarities in structure, sequence and organization of the allegedly infringing work to the protected expression in the allegedly infringing work. In the case at issue, substantial similarity was established in the file structures, screen outputs and in five subroutines in the software. Though a different approach of assessing alleged non-literal copying was later used by the court in *Computer Associates Inc –V- Atlai Inc*⁶, the court looked at three matters; firstly the abstraction of a

³ David I. Bainbridge 1994 *Intellectual Property* 2nd Edition Pitman Publishing Chapter 8, page 161.

⁴ Copying to Complete: The Tension Between Copyright Protection & Antitrust Policy in Recent Non-Literal Computer Program Infringement Cases, 15 John Marshall J. of Comp & Info Law.

⁵ 3d Cir 1987

⁶ 2d Cir 1992

person's program, secondly the filtration of the non-protectable elements of the program and finally comparison of the program with that of the person accused of copying.

Copyright law has satisfied the most immediate needs for property rights in computer products⁷. It is contended that copyright subsists in computer programs as a form of literary work, and the prerequisites of originality and reduction to material form must be met so as to be subject matter of copyright⁸

Initially computer software was not expressly provided for in the copyright law although many writers considered that it was protected as literary work. The problem of unauthorized copying of computer software created the need to have express provision for software protection through copyright. The losses attributed to software piracy were astronomical and this further raised the concern for the need to change the law. The issue of the computer software that falls under the scope of protection is still a cause for debate.⁹

A copyright owner has the exclusive right to copy the work, issue copies of the work to the public, perform, show or play the work in public, broadcast the work and to make an adaptation of the work or do any of the above in relation to an adaptation. Copyright in a work is infringed by a person who does or authorizes another to do any of the acts restricted by the copyright without the license of the copyright owner¹⁰.

⁷ W.R Cornish, *Intellectual Property: Patents, Copyright, Trademarks & Allied Rights*, Chapter 13.

⁸ Section 22 (3) Copyright Act 2001

⁹ K. Garnett, J.R. James, G.Davies (1999) *Copinger and Skone James on Copyright: Sweet & Maxwell* 14th Edition Chapter 27, page 1473

¹⁰ David I. Bainbridge (1994) *Intellectual property* 2nd Edition Pitman Publishing Chapter 8, page 161.

The two most important acts restricted by copyright in relation to computer programs are those of copying and making an adaptation. There are other aspects such as issuing to the public and secondary infringement but copying and making adaptations are most important in looking at the scope of protection by copyright.

It is argued that like any other literary work, copyright in a computer program is infringed when a copy is made of the program or a substantial part of it. Substantiality is in relation to quality not quantity¹¹. Consequently a computer program can be infringed when the essence of it is copied however small it may be quantitatively. The problem that arises is that judicial officers may lack or have inadequate technical knowledge about computer software, which ultimately impacts on their appreciation of term “substantial part”. This is illustrated in the case of *Total Information Processing Systems Ltd V Daman Ltd*¹² whereby the judge held that the data division of a COBOL program did not represent a substantial part of the program since it did not produce executable code nor tell anything about the program. This implies that to many software programmers, the data division is an integral part of the program and also requires protection.

Copyright protection of a computer program runs for the life of an author and a further period of 50 years from the end of the calendar year in which the author dies. This long period is reconciled with interests of the public in that other persons can create works similar to existing works provided they do this independently and without performing any of the acts restricted by copyright. Accordingly the implication is that copyright protects the expression of an idea but not the idea itself¹³

¹¹ Richardson (John) Computers Ltd V Flanders and Chemtec Ltd (1993) F.S.R 497

¹² (1992) FSR 171.

¹³ Article 9 (2) The TRIPS Agreement

There are certain special permitted acts in relation to computer programs where copyright law is concerned. These acts are decompilation of computer programs which involve the act of converting a computer program into a form easier to understand the meaning it is expressed for the purpose of achieving interoperability. The making of copies or adaptations of computer programs for the purpose of error correction is also a special permitted right. Another permitted act is that of making back-up copies of computer programs if necessary for the lawful use of a computer program by a lawful user. All these permitted acts are subject to certain conditions

A lot of difficulties have been experienced in the application of copyright principles to computer software. In deciding whether certain software is capable of being copyrighted the courts have based their decisions on certain issues such as whether it is a functional work and whether it is a detailed idea, not a general idea. In the case of *Ibcos Computers V Barclays Mercantile*¹⁴ Jacob J held *inter alia* that the fact that a work is functional does not prevent it from being a copyright work so long as it involves sufficient skill, labour and judgment on the part of the author. The court also held that protection is accorded to a detailed idea and not a general idea. In declaring an infringement of copyright, a substantial part must have been copied. Further, the significance of that part to the whole program is also determined¹⁵.

The scope of legal interpretation and uncertainties of the law have spurred some stakeholders to advocate for a regime of more definite and comprehensive legislation to protect software. The viability of this is debatable since software technology is dynamic and the law risks obsolesce. The alternative argument would be to have general principles of software copyright law and courts being given discretion in its application. There is a danger of the

¹⁴ (1994) F.S.R 275.

¹⁵ Richardson (John) Computers Ltd V Flanders and Chemtec Ltd

scope of protection of software by copyright being too wide. This would result in the justifiable inhibition of innovation and competition in the computer industry. Therefore there is a need to find a balance between the conflicting interests.

1.8 LIMITATIONS OF STUDY

The research is anticipated to face a number of restrictions or limitations.

- a) The issue of software and rights attached thereto is complex and it was difficult to determine which kinds of software fall under the ambit of copyright protection. This problem was overcome by extensively researching on the issue.
- b) There is inadequate literature on the subject matter especially in the Kenyan context. As a result reference was made to the International instruments and the literature and legislation of both United States of America and United Kingdom.
- c) The legislature and policies that are currently in place are not comprehensive on the aspect of software protection. This is mainly due to the novelty as well as the technicality of issues that affect software.

2. RESEARCH DESIGN AND METHODOLOGY

The research was carried out qualitatively, through literature materials and the internet. The following methodological tools were used:

2.1 LIBRARY RESEARCH

The study was aided by materials from Kampala International University Library. Software protection falls under the ambit of Intellectual Property and Computer Software and there are relevant reference materials.

The sources of data were various publications on the issue of software protection, the internet and statutes. The study population was the various stakeholders in the information technology industry in Kenya.

2.2 INTERNET

The internet provided a lot of current information on software protection. This was more contemporary than books published on this subject. This can be attributed mainly due to the ease with which material can be posted on the internet doing away with the time involved in publishing other forms of literature such as books that require publishing, printing and distribution. The material from the internet is also cheaper to access as compared to other sources.

2.3 STATUTES

The study made reference to the statutes that govern the protection of software. This is The Copyrights Act of 2001 of Kenya.

3. CHAPTERISATION

The research has been discussed in the following chapters:

Chapter 1

Introduction

This chapter gives a background of the research and the objectives of carrying out the research. It also covers the modes of research applied and challenges encountered in carrying out the research.

Chapter 2

Software Protection

This chapter gives an overview of the general area of software protection. The chapter further looks into what software material can be protected and the requirements that must be met before software can be accorded this protection.

Chapter 3

The legislative framework for Software Copyright in Kenya

This chapter covers the protection accorded to software through copyright legislation in Kenya. The chapter study's the local legislation that is in place, Copyright Act of 2001 and the provisions made by international treaties and conventions such as Berne Convention, WIPO Copyright Treaty of 1996 and the WTO Agreement on Trade-Related Aspects of Intellectual Property. There is also an analysis of the rights that accrue to a copyright holder.

Chapter 4

Enforcement of Copyright

This chapter focuses on the adequacy of copyright legislation in protection of software in Kenya. The chapter will cover the investigation of the loopholes that are present in the current legal provisions of software protection. The enforcement of these rights by the Government will also be covered in this chapter.

Chapter 5

Conclusions and Recommendations

This chapter will give the conclusions of the study and recommendations.

CHAPTER 2

Software Protection in Kenya

2. Introduction

Computer technology has rapidly become an integral part of our society. Consciously or unconsciously, a large number of people in the world today use computer software on a regular basis¹⁶. Most aspects of human life are affected by computers and computer software, from the program that controls the functioning of our cellular phones to the complex systems that controls various processes in a manufacturing industry. The use of computers and computer software has permeated into every conceivable field of business with larger businesses using powerful mainframe computers for large scale applications and the smaller firms making use of personal computers for various functions such as word processing and database management.

Computer software is extremely vulnerable to duplication. Software piracy is the illegal reproduction and distribution of software application whether for business or personal use. Unauthorized copying of software can deprive developers of a fair return for their work, increase prices of software and inhibit the development of new software products. This is because unauthorized copying threatens to rob software developers of their incentive to keep coming up with new software. Protection of intellectual property rights for computer software is essential for the safeguarding of economic incentives that are necessary to encourage the investment of time and resources required for continued development of computer software.

¹⁶ K. Garnett, J.R. James, G.Davies (1999) *Copinger and Skone James on Copyright*: Sweet & Maxwell 14th Edition Chapter 27, page 1477

2.1 Computer Software

Computer software is a phrase that is incapable of precise definition but is usually taken to include computer programs, databases, preparatory material and associated documentation such as manuals for users of the programs and for persons who have to maintain the programs¹⁷.

Kenya's Copyright Act¹⁸ defines "computer programs as a set of instructions expressed in words, codes, schemes or in any other form, which is capable, when incorporated in a medium that the computer can read, of causing a computer to perform or achieve a particular task or result.

A computer program can therefore be said to be an organized list of instructions that, when executed, causes the computer to behave in a predetermined manner. There are many programming languages such as PASCAL, BASIC, FORTRAN and COBOL. They are all high-level languages. One can also write programs in low-level languages called assembly languages, although this is more difficult. Low-level languages are closer to the language used by a computer, while high level languages are closer to human languages.

Eventually, every program must be translated into a machine language that the computer can understand. This translation is performed by compilers, interpreters, assemblers. When you buy software, you normally buy an executable version of a program. This means that program is already machine language and it has already been compiled and assembled and is ready to execute.

¹⁷ David I. Bainbridge (1994) *Intellectual property* 2nd Edition Pitman Publishing Chapter 8, page 161.

¹⁸ Copyright Act 2001, Laws of Kenya

Computer software is one or more computer programs, existing in any form, instructions, manuals, associated operational procedures, or other documentation. Software provides the instructions and controls through symbolic languages of the operation of all computers including stand-alone and LAN (Local Area Network) personal computers and related equipment as well as mainframe computers.

Computer software can be divided into two categories: systems software and applications software. Systems software is made up of control programs which include the operating system and generally all the utilities that enable the computer to function such as disk formatters, file managers, display managers, text exhibitors, user authentication, management tools and networking and device control software. System software is responsible for controlling, integrating, and managing the individual hardware components of a computer system so that other software and the users of the system see it as a functional unit without having to be concerned with the low-level details such as transferring data from memory to disk, or rendering text onto a display.

Applications software, on the other hand, is any program that processes data for the user and is used to accomplish specific tasks other than just running the computer system. Application software may consist of a single program, such as an image viewer. It may also consist of a small collection of programs¹⁹ that work closely together to accomplish a task, such as a spreadsheet or text processing system. Alternatively it may consist of a larger collection²⁰ of related but independent programs and packages that have a common user interface or shared data format, such as Microsoft Office, which consists of closely integrated word processor,

¹⁹ Often called a software package.

²⁰ Often called a software suite.

spreadsheet, database, etc. Application software may also consist of a software system, such as a database management system, which is a collection of fundamental programs that provides some services to a variety of other independent applications.

2.2 Copyright

From time immemorial there has always been a need to protect one's work from exploitation by others. Copyright is a form of intellectual property right and it subsists in certain specified types of works. Under section 22 (1) of the *Kenya Copyright Act 2001*, the works that are eligible for copyright are literary works, musical works, artistic works, audio-visual works, sound recordings and broadcasts. Copyrights can be traced two centuries back. The problem of copying escalated with the advent of printing. Copyright was argued to be a property right and this led to the passing of Statute of Anne in 1710 in England and this is generally regarded as the world's first Copyright law²¹. The Act was the first clear acknowledgement of the legal right of authorship²². *Finnan V Columba*²³ was the first record of a copyright case. In this case St Columba made a copy of Psalter which was in the possession of his teacher Finnan. This was the beginning of copyright related litigation.

Macaulay, a historian, once described copyright as

*"a tax on readers for the purpose of giving bounty to writers"*²⁴.

He was, however, not arguing for the abolition of copyright but against the extension of copyright beyond the author's life.

²¹ Jessica Litman (2001) *Digital Copyright* Prometheus Books Chapter 1, page 15

²² David I. Bainbridge (2002) *Intellectual Property* Fifth Edition

²³ 567 AD.

²⁴ Hansard, HC Deb Vol 56 (5 February 1841)

Recognition of the importance of copyright internationally led to the formulation of the Berne Convention on Copyright in 1886. This Convention was to promote uniformity in copyright law and grant to copyright owners protection in all member states.²⁵

Copyright law exists to protect interests of copyright owners and courts have no consideration for plagiarists. In the case of *University of London Press Limited V University Tutorial Press Limited*,²⁶ the court held, inter alia

“...there remains the rough practical test that what is worth copying is worth protecting.”

This was the initial position but this has since changed. However the change can be attributed to the fact that had the position been upheld, protection would be afforded to works that are not a result of sufficient skill and judgment. Works that were a result of purely mechanical labour and no skill would be afforded protection and this would be erroneous²⁷.

2.2.1 Copyright Legislation in Kenya

Software copyright law in Kenya has evolved from the 1911 and 1956 Copyright Acts of the United Kingdom. These Acts were applied together with English Common Law by way of the reception clause in Kenya. Kenya enacted its Copyright Act Cap 130 in 1966. The Act underwent some reforms such as introduction of folklore in 1975. Other doctrines were also introduced in 1982, 1989 and 1995 in regard to protection of foreign works and enforcement remedies for instance injunction²⁸. Copyright is currently regulated in Kenya by the Copyright Act of 2001. The Attorney's General' office is in charge of copyright matters in Kenya.

2.3 Software Copyright

²⁵ Article 14 and Article 6^{bis}.

²⁶ (1916) 2 Ch 601 at 610

²⁷ *Cantor Fitzgerald International V Tradition (UK) Ltd* (2000) RPC 95

²⁸ Section 26

Initially, computer software was not expressly provided for in the copyright law although many writers considered that it was protected as a literary work. Initial reservations as to the appropriateness of applying copyright protection to functional works gave way to the view that computer programs, as literary works, particularly in their source-code forms, need protection from piracy. The problems of unauthorized copying of computer software created the need to have express provision for software protection. The losses attributed to software piracy were astronomical and this further raised the concern for the need to change the law. Because copyright law protects against copying, copyrights were a reasonable choice for the protection of programs, especially in view of the deficiencies of patent and trade secret law. The issue of the computer software falls under the scope of protection is still a cause for debate.

Copyright also provided automatic transnational protection of programs under the international conventions. For instance, the Berne Copyright Convention of 1886 provided protection to holders of copyright in all the member states. As a result, computer programs are nearly universally the subject of copyright protection. On the international scene, the adoption in 1996 of the WIPO Copyright Treaty confirmed computer programs as literary works²⁹. This ensured the protection of computer programs through copyright. The Kenyan Copyright Act provides for the protection of computer programs as literary works³⁰. In the United Kingdom the first reported English copyright infringement case was that of *John Richardson Computers Limited V Flanders*³¹.

A lot of difficulties have been experienced in the application of copyright principles to computer software. In deciding whether certain software is capable of being copyrighted the

²⁹Article 4- provides that computer programs are protected as literary works within the meaning of Article 2 of the Berne Convention.

³⁰ Section 22

³¹ (1993) F.S.R. 497

courts have based their decisions on certain decisions on certain issues such as whether it is a functional work and whether it is a detailed idea and not a general idea. In the case of *Ibcos Computers V Barclays Mercantile*³² Jacob J held; inter alia that the fact that a work is functional does not prevent it from being a copyright work so long as it involves sufficient skill, labour and judgment on the part of the author. The court held that protection is accorded a detailed idea and not a general idea.

Computer software is the means by which computing machines are cause to perform their jobs. Patent law is the traditional intellectual property vehicle for protecting technology. Computer programs, communication protocols, hardware- to-software and software-software interfaces, as well as many user interfaces, are intrinsically functional in the sense herein defined. Computer programs have utilitarian purposes and in most cases everything in a program and its nonuser interfaces as well as much of its user interface is intended by its author to achieve a functional purpose³³.

The question that arises is why society has turned to copyright law for the protection of computer programs. This can be answered by determining why computer programs are referred to as “literary works”. Creating a computer program can be argued to involve implementing a well-defined process in a programming language which is always obvious and therefore non-patentable. As such it does not meet the requirement of traditional patent law for non-obvious advance in the art. Because the evil to be avoided was slavish copying and because a computer program formally fits the statute’s broad definition of a “literary

³² (1994) F.S.R 275

³³ Functions such as accuracy, speed of processing, optimal use of available resources, facilitating or hindering access, or ease of learning or use.

work”, copyright law became a natural candidate for the protection of programs, notwithstanding their inherent functionality³⁴.

Additionally, the basis for bringing functional computer programs under the copyright umbrella is the prevention of slavish copying of the source code that is ineligible for patent protection. The intention is not to protect all creativity found in programs. Unprotected works of technology may be freely copied, modified and improved, despite the degree of creativity. The creators of such technological developments enjoy only the limited monopoly resulting from the lead time their products have in the market before they can be successfully produced and marketed by competitors. Such copying is permitted and, even applauded, not because society devalues technological creativity, but rather because technology advances incrementally. To forbid such copying would inhibit more creativity than it would engender. Program code arguably requires a different kind of protection, because to allow verbatim electronic copying of programs would reduce the creator’s lead time monopoly almost to zero, and the level of protection seems too little.³⁵

The protection of software through copyright has been complicated mainly due to the nature of software and the ease with which products in digital form can be distributed and used.

Digital works can be differentiated from other literary works in that:

- digital works are easily copied, with limited or no loss of quality;
- works can be easily transmitted to other users or be accessed by multiple users;
- material can be searchable, linked, and interactive.

³⁴ See generally Gary Dukraich, “Patentability of Dedicated Information Processors and Infringement Protection of Inventions that use them”, 29 *Jurimetrics J.* 135 (1989)

³⁵ Thomas M.S Hemnes, “Three Common Fallacies in the User Interface Copyright Debate”, 7 *Computer Lawyer*, Feb. 1990, at 14.

2.4 Software material that can be protected

“Literary work” is one of the categories of works eligible for copyright³⁶. In the definitions provided in the Act, computer programs fall under the definition of literary works, therefore they can be accorded copyright protection.

In deciding whether certain software is capable of being copyrighted the courts have based their decisions on certain issues such as whether it is functional work and whether it is a detailed idea and not a general idea. In the case of Ibcos Computers V Barclays Mercantile³⁷ Jacob J held inter alia that the fact that a work is functional does not prevent it from being a copyright work so long as it involves sufficient skill, labor and judgment on the part of the author.

In Jaslow Dental Laboratory V Whelan Associates, Inc³⁸ the issue was that Whelan’s “Dentcom” program infringed Jaslow’s copyright on its “Dentlab” program, even though there was no issue of any literal code being copied³⁹. The District Court ruled for Jaslow. Whelan appealed, and the Court for the Third Circuit upheld the ruling. The Court began by stating:

“...we must determine whether the structure (or sequence and organization) ... of a computer program is protectable by copyright, or whether the protection of the copyright law extends only as far as the literal computer code”.

The Court in its findings concluded that;

³⁶ Copyright Act 2001, Section 22 (1)

³⁷ (1994) F.S.R 275

³⁸ (1985)

³⁹ Jaslow’s program was written in Event Driven Language (EDL) while Whelan’s was written in BASIC.

“We hold that ... copyright protection of computer programs may extend beyond the programs’ literal code to their structure, sequence and organization”.

The Court therefore gave protection to the “structure, sequence and organization” (which became known as SSO in computer copyright law) of a computer program. This position was however criticized and rejected, in the case of *Computer Associates International Inc V Atlai Inc*⁴⁰. In this decision, the US Second Circuit Court of Appeals upheld a District Court ruling that Atlai’s program did not infringe one by Computer Associates, a second version of Atlai’s program. The first version had been written by an ex-employee of Computer Associates, who unknown to Atlai had copied about 30% of the code from a similar Computer Associates program. Atlai then wrote a clean room second version, using programmers who had never seen the Computer Associates code. Computer Associates claimed that the second version of the program, even though it was a clean room development, nevertheless copied the structure of the Computer Associates program. In the District Court’s opinion, the judge relied on a report by Prof. Randy Davies of Massachusetts Institute of

Technology, who was appointed as an expert to assist the Court. Davis pointed out that the “Structure, Sequence and Organization” test does not make sense, since a program consists of both text and behavior. The code is text⁴¹ but the user of the program deals with its behavior⁴² which may not be copyrightable.

⁴⁰ (1992) 20 USPQ 1641

⁴¹ Static structure

⁴² Dynamic structure

Thus, to analyze copyright ability in terms of “structure” is subject to ambiguity and to identify structure with “sequence” and “organization” as the Whelan Court had done is fallacious. The Second Circuit agreed, and it criticized the Whelan Court’s “Structure, Sequence And Organization” analysis as showing “a flawed understanding of a computer program’s method of operation”, and a “somewhat outdated appreciation of computer science”.

The Court concurred with the Whelan decision that copyright can be infringed even if no literal code is copied, but it continued: “that conclusion does not end our analysis. We must determine the scope of copyright protection that extends to a computer program’s non-literal structure”. In place of “Structure, Sequence and Organization”, the Court proposed using a three-step *abstraction-filtration-comparison* process to gauge the similarity of two computer programs. This process first describes the two programs at various levels of abstraction; then, at each stage, filters out the elements that are not subject to copyright; finally, it compares the results. Most courts now try to follow this procedure, even though it can be complex and highly subjective.

2.5 Subsistence of copyright

Copyright law has satisfied the most immediate needs for property rights in computer products⁴³. It is seen that copyright subsists in computer programs as a form of literary work, and the prerequisites of originality and reduction to material form must be met so as to be subject matter of copyright.

⁴³ W.R Cornish, *Intellectual Property: Patents, Copyright, Trademarks & Allied Rights* Chapter 13 page 105

It is pertinent to note that for a literary work to be eligible for copyright it must fulfill two conditions. First sufficient effort must have been expended in giving the work its original character and secondly the work has been written down, recorded or otherwise reduced to material form⁴⁴. There also has to be substantiality of creation in relation to the work and also substantiality in what is copied⁴⁵.

2.5.1 Originality

The originality envisioned by the statute is not of idea rather the originality of expression or form. In Ladbroke (Football) Ltd Vs William Hill (Football) Ltd it was stated that the word original requires:

*“only that the work should not be copied but should originate from the author”.*⁴⁶

There was a focus on originality as the basis for distinguishing works in which copyright could subsist. Courts distinguished original works from mere ideas; it was the author's original expression of facts or ideas that would be protected; not the underlying ideas⁴⁷. A lot of difficulty has been encountered when trying to differentiate an idea from its expression. In the case of Baker V Selden⁴⁸ the United States Supreme Court tried to articulate the point at which expression merged with an idea so as to become inseparable from the idea.

In a contrary view, the UK courts have been of the opinion that the idea or expression dichotomy should not be an issue of subsistence of copyright. Its relevance should be entirely a matter of evidence⁴⁹. In the case of Kenrick V Lawrence⁵⁰, it was held that the fact that the

⁴⁴ Copyright Act 2001, Section 22(3)

⁴⁵ Cf. DE MINIMIS principle

⁴⁶ (1964) 1 WLR 273 at 291

⁴⁷ Morreau V St. Vincent (1950) Ex CR 198, at 203

⁴⁸ (1880) 101 US 99

⁴⁹ DAVID i. Bainbridge (2002) Intellectual Property 5th Edition, page 44

expression of a work is dictated by or severely constrained by its underlying idea does not and should not affect the subsistence of copyright.

To give broader copyright protection would be to create a monopoly over the idea being expressed as opposed to the expression itself⁵¹. In a Canadian case, *Delrina V Triolet Systems Inc*⁵² the Ontario Court of Appeal noted:

“...the expression of an idea is a natural corollary of distinction which as I have said is fundamental in copyright law in Canada, England and the United States. Clearly if there is only one or very limited ways to achieve a particular result in a computer program, to hold that that way or ways are protectable by copyright could give the copyright holder a monopoly on the idea or function itself”⁵³.

It follows therefore that for a work to become eligible for copyright protection, a reasonable amount of skill and effort be expended in the creation of a work⁵⁴. This brings into focus the sweat of the brow doctrine. The doctrine emphasizes copyright as a reward to the hard work that went into compiling facts⁵⁵. Under this doctrine, even works exhibiting minimal creativity, like maps and other so-called compilations or collections of facts, were entitled to copyright as the reward for the intense labour involved in compiling such facts, which are undeniably useful to the public.

⁵⁰ (1980) 25 QBD 99

⁵¹ Originality & Utilitarian Works: The Uneasy Relationship Between Copyright Law and Unfair Competition by Teresa Associate Professor Dalhousie Law School, page 64 University of Ottawa Law & Technology Journal

⁵² (1993) 9 B.L.R (2d) 140

⁵³ Ibid, at 353

⁵⁴ Feist Publication Inc V Telephone Service Company (1991) 111 S Ct 1282

⁵⁵ David I. Bainbridge (2002) *Intellectual Property* Fifth Edition page 40

The foregoing was the subject of consideration in the case of Feist Publications V Rural Telephone Service Company⁵⁶, the Supreme Court rejected the sweat of the brow doctrine, holding that originality is a *sine qua non*⁵⁷ of copyright law, regardless of the author's great efforts in collecting and assembling facts. The court stated that creativity not intense labor can render factual compilations copyrightable. This originality requires a compiler to make at least minimally creative, independent choices regarding the selection and arrangements of facts⁵⁸. A compilation of facts may possess the required originality and creativity to receive copyright protection, but the originality derives solely from the author's selection of what factors to include and the manner in which they are arranged. The court noted that "facts are never original, so the compilation author can claim originality, if at all; only in the way the facts are presented".

2.5.2 Tangibility

Tangibility is yet another prerequisite for copyright to subsist in a work. The work must be reduced to some material form. Copyright in a literary work will only exist if the work has been written down, recorded or otherwise reduced to material form. Copyright protects both published and unpublished material from the time it is fixed in a material form⁵⁹.

Copyright legislation is directed at the protection of expression of ideas as opposed to the ideas themselves. This is evident in the Bern Copyright Convention. Protection is also granted to works that have been reduced to a material form. For some works such as films,

⁵⁶ (1991) 111 S Ct 1282

⁵⁷ An essential condition or element, an indispensable thing; an absolute prerequisite

⁵⁸ In the Feist decision, this rule was used to hold that an alphabetical listing of surnames in a telephone white pages directory is not protectable, since such a listing is "devoid of even the slightest trace of creativity," and this lacks the requisite originality. White pages' directories are extremely useful lists of facts that require immense labor to produce, yet their production lacks the creativity necessary to imbue them with copyrightability.

⁵⁹ Copyright Act 2001, Section 22(3) b

sound recordings as well as artistic works, for instance, paintings, their very existence implies tangibility. This is not for dramatic, literary and musical works which may exist in a non-tangible form. For instance, a poem may be composed and recited from the poet's memory without having been reduced to a material form⁶⁰.

The copyright statute is constructed widely enough to accommodate technological advances. It provides that the requirement for tangibility can be met by simply "otherwise reducing the work to any material form" not necessarily by writing or recording⁶¹.

The reduction to material form need not be by the author or with his permission. In *Walter V Lane*⁶², the court held that copyright subsisted in a newspaper report of a speech by Lord Roseberry. The report was prepared from a reporter's shorthand notes. The newspaper was held to own the copyright. At the time, originality was not a requirement. It is thus arguable that if a person records a speech verbatim then the speaker is the author of the written work for copyright purposes. However, if the person recording the speech expends some sufficient skill and judgment in making a selective record of the speech adding comments and his own interpretation then copyright could subsist in his written work and he would be the author.

2.6 Authorship And Ownership Of Software

The problem of proving legal title to software is common⁶³. In the first software copyright trial⁶⁴ the plaintiff in the trial had difficulty proving ownership. In relation to first ownership

⁶⁰ Article 2(2) Berne Convention on Literary and Artistic Works

⁶¹ Copyright Act 2001, Section 22(3)b

⁶² (1990) AC 539

⁶³ K. Garnett, J.R. James, G DAVIES (1999) Copinger and Kane JAMES ON COPYRIGHT 14th Edition Sweet & Maxwell Chapter 27 page 1479

⁶⁴ John Richardson Computers Limited V Flanders (1993) F.S.R. 497

of copyright, if a person creates a work on commission, the person who commissions the work shall be the first owner unless there is a contract to the contrary⁶⁵.

2.7 Duration Of Copyright

Copyright once granted lasts for the life of the author and an additional 50 years after the end of the year in which the author dies⁶⁶. This long period is reconciled with the interests of the public in that other persons can create works similar to existing works provided they do this independently and without performing any of the acts restricted by copyright. Accordingly the implication is that copyright protects the expression of an idea but not the idea itself

2.8 Justification For Software Copyright

The producer of information is granted a reward for his efforts by the copyright law. Copyright protects the owner of intellectual property owner against unauthorized copying, manipulation, and redistribution of copyrighted material.

A person should own what they produce, that is, what they bring into being⁶⁷. Intellectual property is the most basic form of property because a man uses nothing to produce it other than his mind⁶⁸. **Article 40 of the Kenya Constitution of 2010** provides for and guarantees the right to property with restriction imposed on unauthorized interference with the quiet enjoyment of the property by the owners. Protection of intellectual property therefore, through strong copyright law, stimulates investment in innovation since new works are assured of profitability so long as they are sufficiently useful and of commercial importance. Increased investment directly translates into economic development with increased provision

⁶⁵ Copyright Act 2001, Section 31

⁶⁶ Copyright Act 2001 Section 23(2)

⁶⁷ David I. Bainbridge (2002) Intellectual Property Fifth Edition

⁶⁸ Professor Brian Niblett

of employment opportunities and an increase in welfare gains for the general populace among other benefits.

There is also the justification that a creator or innovator should have a just reward for the time, effort, skill and judgment expended on the creation of a work. This is despite the fact copyright protection is not granted on the basis of the “sweat of the brow” doctrine.

A creator should also get adequate protection from unfair exploitation of his work. Remedies should be provided against those who appropriate a creator’s expression of an idea⁶⁹. Copyright protection also serves to protect the public from counterfeits. However it can be argued that counterfeit software is relatively cheaper than the original products. On the down side copyright laws have been accused of stifling innovation.

⁶⁹ Copyright affords protection to the expression of an idea not the idea itself.

CHAPTER THREE

Software Copyright in Kenya, the Law and Practice.

3. Protection of software

The protection accorded to holders of copyright in software comes in various forms. Protection is provided through local legislation as well as protection multilateral treaties such as the Universal Copyrights Convention and the Berne Convention on Literary Works. The World Intellectual Property Organization (WIPO)⁷⁰ is a specialized body of the United Nations and it administers the Berne Convention. Kenya has been a member of the Berne Convention on Literary and Artistic Works since June 1993. The Convention provides protection for copyrighted works in the member states⁷¹.

The debate continues to rage over the proper place of computer programs within the copyright protective scheme. The debate is not over copying of code for resale or for the purpose of creating a usable second program to accomplish the function intended by its author. Copying of this type constitutes copyright infringement, and copyright laws work well as a legal prohibition of the kind of piracy. The debate, rather, is over what other aspects of program technology, beyond literal code, should be protected by the copyright in the program. Academic as well as judicial attention has focused on three problems: the scope of copyright protection in a program; the copyright protection of interfaces, especially user interfaces; and the reverse engineering of programs.

3.1 Rights of a software copyright holder

The copyright holder is granted certain rights. A copyright owner has the exclusive right to copy the work, distribute or issue the work to the public by way of sale, rental, lease, hire,

⁷⁰ The World Intellectual Property Organization (WIPO) is an international organization dedicated to promoting the use and protection of works of the human spirit. These works "intellectual property" are expanding the bounds of science and technology and enriching the world of the arts.

⁷¹ Article 2

loan, performance. The copyright owner can show or play the work in public, broadcast the work and make an adaptation of the work or do any of the above in relation to an adaptation.⁷²

The phrase “exclusive right” means that the copyright holder and only the copyright holder is allowed to do the specified acts. This means that everyone else is prohibited from doing them without the copyright holder’s consent. However, these rights are not without limit, as they are specifically limited by “fair dealing” and several other specific limitations set forth in the Copyright Act, 2001.

The right to reproduce or copy a work is perhaps the most important right granted by the Copyright Act. Under this right, no one other than the copyright owner may make any reproductions or copies of the work. Unauthorized acts which are prohibited under the reproduction right include photocopying a book, plagiarizing a computer software program, incorporating a portion of another’s song into a new song among others.

The right to make an adaptation or a derivative work often overlaps with the production right. A derivative work usually involves a type of transformation, such as the transformation of a novel into a motion picture. An example of a derivative work in the software industry is a second or subsequent version of a software program. One such example is that of Microsoft Windows 95, which was the initial work and was subsequently followed by Microsoft Windows 97 then, Microsoft Windows XP which was then followed by Microsoft Windows 2003 then Microsoft Windows 2007 and more recently Microsoft Windows 2010. These are generally considered derivative works based upon the earlier version.

⁷² Section 26(1) Kenya’s Copyright Act 2001.

The right to distribute or issue a work grants to the copyright holder the exclusive right to make a work available to the public by sale, rental, lease or lending. This right allows the copyright holder to prevent the distribution of unauthorized copies of a work. In addition, the right allows the copyright holder to control the first distribution of a particular unauthorized copy.

The public performance right allows the copyright holder to control the public performances of certain copyrighted works. Under the public performance right, a copyright holder is allowed to control when the work is performed “publicly”. A performance is considered “public” when the work is performed in a place open to the public or to a place where a substantial number of persons outside of a normal circle of family and its social acquaintances are gathered”. The public display right is similar to the public performance right, except that this right controls the public “display” of a work. The definition of when a work is displayed “publicly” is the same as that described above in connection with the right of public performance.

Moral rights exist in addition to the author’s proprietary and economic rights.⁷³ The Berne Convention, Article 6, recognized an author’s moral rights. The United Kingdom position favoured the protection of economic rights as opposed to moral rights, which was the position favoured by the French⁷⁴ who advocated for an authors “paternity rights” even after they lost their economic rights. In regard to moral rights an author or in this case the creator of software has the right to claim authorship of the work,⁷⁵ object to any distortion or

⁷³ Berne Convention Article 6

⁷⁴ David I. Bainbridge (2002) “Intellectual Property” Pitman Publishing, 2nd Edition Chapter 96.

⁷⁵ Often referred to as the “paternity rights”

derogation⁷⁶ of the work that would result in disrepute or dishonor.⁷⁷ Moral rights exist independently of economic rights and continue to subsist in a work even after an author transfers his economic rights. Moral rights are not transferable in the lifetime of the author, but on his demise they may be transmitted by way of testamentary disposition.⁷⁸ The author or creator of a work may seek relief from the judicial system if his moral rights are infringed⁷⁹.

3.2 Infringement

When dealing with the subject of copyright one of the fundamental issues that has to be looked into is that of what copying constitutes infringement. In declaring an act as amounting to infringement of copyright, there has to be a substantial part that has been copied and further the significance of that part of the whole program is also determined⁸⁰.

Infringement is defined by the Kenyan Copyright Act as an act that violates a right protected by the Act. Copyright infringement is the unauthorized use of copyright material in a manner that violates one of the copyright owner's exclusive rights, such as the right to reproduce or perform the copyrighted work, or to make derivative works that build upon it. Software, like other literary works is infringed by the taking of the whole or substantial part of it. Copyright covers selective, altered, summarized and otherwise varied versions of work where it involves substantial reproduction of the original⁸¹. This is often referred to as adaptation which is expressly classified as an act of infringement if done without authorization.⁸²

⁷⁶ Often referred to as the "integrity rights"

⁷⁷ Section 32 (1) Kenya Copyright Act 2001.

⁷⁸ Section 32 (2) Kenya Copyright Act 2001

⁷⁹ Section 32 (3) Kenya Copyright Act 2001

⁸⁰ Richardson (John) Computers Ltd Flanders and Chemtec Ltd (1993) F.S.R 497

⁸¹ W.R Cornish 13, page 510

⁸² Section 26 Kenya Copyright Act

Many infringement claims involve simple cases of piracy where the copying is obvious. Others however are more difficult to resolve because copyright protection is not limited to exact copying.

3.2.1 Substantial taking

As with other literary works copyright in a computer program is infringed when a copy is made of the program or a substantial part of it. Substantiality is both in relation to quality and quantity. Consequently a computer program can be infringed when the essence of it is copied however small it may be quantitatively. A problem arises out of this stand since most judges may lack technological knowledge and this will affect their definition of the term “substantial part”. This can be seen in the case of *Total Information Processing Systems Ltd V Daman Ltd*,⁸³ whereby the judge held that the data division of a COBOL program did not represent a substantial part of the program since it did not produce executable code nor tell anything about the program. To many software programmers the data division is an integral part of the program and also requires protection.

In relation to quantity the *de minimis* principle is applied. This principle postulates that copyright protection should not be granted to works that are trivial in the extreme or so small as to be entirely insignificant.⁸⁴ This is drawn from the principle of *de minimis non curate lax*.⁸⁵ In essence this means that for copyright to subsist in a work, the work must be substantial. In the case of *Exxon Corporation V Exxon Insurance Consultants International Ltd*⁸⁶ the court in upholding the *de minimis* principle held that the word “EXXON” could not be classified as an original literary work.

⁸³ (1992) FSR 171

⁸⁴ DAVID I Bainbridge

⁸⁵ The law does not concern itself with trifles

⁸⁶ (1981) ALLER 241

Regarding the question where a work is eligible for copyright if it has used a substantial part of another copyright protected work, the Copyright Act 2001 directly addresses the issue. “A work shall not be ineligible for copyright by reason only that the making of the work, or the doing of any act in relation to the work, involved an infringement of copyright in some other work.”⁸⁷ This clearly postulates that a person can create a work based on another already copyrighted work and his work would still be eligible for copyright.

Copyright in a work is infringed by a person who does or authorizes another to do any of the acts restricted by copyright without the license of the copyright owner. The two most important acts restricted by copyright in relation to computer programs are those of copying and making an adaptation⁸⁸. There are other aspects such as issuing to the public and secondary infringement. Copying and making adaptations are most important in looking at the scope of protection by copyright.

3.3 Copying

A copy is defined as a reproduction of a work in any manner or form and includes any sound or visual recording of a work and any permanent or transient storage of a work in any medium, by computer technology or any other electronic means.⁸⁹ As provided by the Act making copies that are transient can constitute infringement meaning merely running a program without putting it into the computer memory can itself constitute infringement.

⁸⁷ Section 22(4) Kenya Copyright Act 2001

⁸⁸ David I Bainbridge (2002) “Intellectual Property” Pitman Publishing, 2nd Edition, Chapter 8, page 164.

⁸⁹ Section 2(1) Kenya Copyright Act

Copying in relation to literary works is defined as reproducing the work in any material form.⁹⁰ This does not cover the underlying idea but just the expression of the idea. The taking of the idea in a work does not amount to an infringement of copyright subsisting in the works.⁹¹ The copying that is of concern is that which amounts to infringement. One of the attributes of software is that it's costly to develop but inexpensive to copy.⁹² This further compounds the issue of its protection against copying.

3.3.1 Types of Copying

Copying can be classified into literal and non-literal copying. Literal copying involves exact duplication of expression, but is generally applied to duplication of code. Literal copying involves line-by-line or disk-to-disk unlicensed copying of a computer program. In the case of *Ibcos Computers V Barclays Mercantile*⁹³, a UK court held that there was literal copying of the work. there disk-to-disk copying which was evidenced in part by the presence of spelling mistakes and redundant and unexplained code in both the original program and the allegedly infringing copy.

Non-literal copying involves creating a work that duplicates the functionality without actually copying code. Non-literal copying involves copying the structure of the work.⁹⁴ Non-literal copying occurs when what is copied is not the actual code either source or object of the program but rather its function, structure or "look and feel", for instance menus or screen displays. Non-literal copying is especially hard to prove as seen in the case of *Whelan*

⁹⁰ David I. Bainbridge (2002) "Intellectual property" 5th Edition, Pearson Longman, Chapter 6, page 120

⁹¹ *Breville Europe Plc V Thorn Emi Domestic Appliances Ltd* (1995) FSR 77

⁹² Software, Search and Data: Antitrust and Misuse Michael A Einhorn PhD, Chapter 7 Media, Technology and Copyright: Integrating Law and Economics, Edward Elgar Publishers 2004.

⁹³ [1994] F.S.R 275

⁹⁴ See John Marshall J, "Copying To Compete: The Tension Between Copyright Protection & Antitrust Policy In Recent Non-Literal Computer Program Infringement Cases" 15. of Comp. & Info Law

Associates V Jaslow Dental Laboratories, Inc⁹⁵ In this case it was established that the plaintiff must prove similarities in structure, sequence and organization of the allegedly infringing work to the protected expression in the allegedly infringed work. In the case at issue, substantial similarity was established in the file structures, screen outputs and in five subroutines in the software.

A different approach of assessing alleged non-literal copying was later used by the American court in Computer Associates Inc V Atlai Inc.⁹⁶ the court looked at three matters. First the abstraction of a person's program, second the filtration of the non-protectable elements of the program and finally a comparison of the program with that of the person accused of copying. The holding in Computer Associates was greatly criticized as it was seen to weaken the copyright protection given to computer programs. This was because after the filtration process there may be very little left to protect.

The English approach to the issue of non-literal copying is seen in the cases of Richardson Computers Limited V Flanders⁹⁷ and Ibcos Computers V Barclays Mercantile.⁹⁸ in Richardson the court used the abstraction or filtration test and despite finding 17 similarities between the original program and the one alleged to have been copied, using these criteria only 3 of the similarities were found to infringe. This was seen as a further confirmation of the fact that the abstraction, filtration and comparison test served to further weaken protection. However, later on in IBCOS the court took a divergent approach in regard to non-literal copying. The court took the approach that if the structure and "look and feel" of a program had been copied there might be infringement if a substantial part had been taken.

⁹⁵ 3d Cir 1987

⁹⁶ 2d Cir 1992

⁹⁷ (1993) F.S.R 497

⁹⁸ [1994] F.S.R 275

3.3.2 Developments in Copying Technology

Developments in copying technology and reductions in the cost of making copies of all manner of copyright works has gone a long way in making copyright law inefficient in providing protection against unauthorized copying.⁹⁹ There is little that can be done in regard to copying in the home for private purposes since it would be virtually impossible to enforce copyright in such instances.

With technological advancement in copying technology, copying is much faster. This results in production of numerous copies which further compounds the problem of piracy. Copying has also become more efficient with technological advancement, meaning better or perfect copies can be made. Moreover, with the advancement in copying technology it is cheaper to make copies of software.

3.3.3 Methods adopted to prevent copying

With the losses that software industry has suffered due to software piracy there has been a lot of investment in development of anti-copying technology. Software developers have adopted copy protection and digital rights management¹⁰⁰ mechanisms which involve the adding of software or hardware to protect software from unauthorized copying. There are various devices and means that owners of software have come up with to protect their software.

One of the methods used in protecting software against copying is coding it in such a way that it triggers bugs in copying programs, while remaining readable for normal use.¹⁰¹ This

⁹⁹ David I. Bainbridge (2002) "Intellectual Property 5th Edition Pearson Longman, Chapter 8, page 230

¹⁰⁰ Digital rights management is a term referring to any of several technical mechanisms used to restrict or control the use of digital media content on electronic devices with such technologies installed.

¹⁰¹ An example is RipGuard Software.

method can however be eventually circumvented by software pirates who get ways of debugging.

Large software development firms have introduced the use of dongles with their software. Dongles serve the purpose of ensuring that only authorized users can use certain software applications. When a program that comes with a dongle runs, it checks the dongle for verification as it is loading. If it doesn't find the dongle, the program just quits. This means that the program will not run on the computer, unless the dongle is present. The dongles are issued by the software manufacturers together with the media for the software at the point of purchase, though at times they may be provided when the purchaser wants to make updates on the software with the owner's permission.

Yet another method used by software production firms is the use of product activation keys or codes. This method invalidates or severely restricts a software product's functionality until the product is registered with a publisher by means of a special identification or activation code. The process often uses information about the specific configuration of the hardware on which the software runs, hashing it with the identification number specific to the product's license.¹⁰² However, workarounds that bypass the product activation system have been developed, greatly impacting on the system's ability to protect software from copying.

Some software producers take the option of scrambling the program code on the magnetic disk on which the software is saved or making alterations to the disk directory. This is done to prevent copying of the program from the disk. There are also devices that impair the quality of the copies made from the original copy of software. These can be used to act as a

¹⁰² Microsoft was the first company to utilize this method in its Microsoft Reader program. The company later used the product activation method in their Windows XP and Office XP products

deterrent to making copies since the resultant copies will be of poor quality and may not serve the required purpose.

The Copyright Act provides that circumventing any effective technical measure designed to protect works to an infringement of copyright.¹⁰³ The manufacturing or distributing devices designed to circumvent technical measures designed to protect works is also an act of infringement. Removing or altering electronic rights management information amounts to infringement. Similarly making available to the public protected works from which electronic rights management information has been removed or altered without permission is also an act of infringement. All these statutory provisions act as a means of further protecting software from acts of infringement.

Owners of software can take legal action against infringers or those who make infringement possible. This prevents further infringement by the infringer and also serves as a deterrent to would be infringers.

3.4 Permitted Copying.

There are certain instances when copying is allowed. A person in lawful possession of computer software is allowed to perform certain acts without direct authorization of the right holder. These acts include making copies necessary to correct errors, as backup copies, copies for the purpose of testing a program to determine its suitability for the person's use or for any purpose that is not prohibited under any license or agreement whereby the person is

¹⁰³ Section 35 (3) of Kenya's Copyright Act 2001

permitted to use the program. These authorized acts serve as exceptions to copyright holder's rights.¹⁰⁴

It can therefore be concluded that there are certain special permitted acts in relation to computer programs where copyright law is concerned. One such permitted act is the decompilation of computer programs. This involves the conversion of a computer program into a form easier to understand meaning it is expressed in a higher language, this is for the purpose of achieving interoperability.¹⁰⁵ decompilation is sometimes also referred to as reverse engineering. Reverse engineering is described as the process of exacting applied know-how from a human-made artifact that embodies technical knowledge contributed by others. It involves starting with the known product and working backwards to divine the process which aided in its development or manufacture.¹⁰⁶ It involves clear line by line copying. Reverse analysis is the computer equivalent of reverse engineering.¹⁰⁷

Decompilation of software for purpose of achieving interoperability¹⁰⁸ will not infringe copyright in software. Unless a decompiled computer program is recompiled for use in a computer, or unless protected elements from the decompiled program are used in creating a new program, the owner has suffered no copyright-cognizable harm by the translation. Computer programs are made and purchased for use, not for reading. Copying or translating into human-readable form, in itself, does not create a single usable copy that can infringe on the copyrights owner's rights. If the use of unprotected elements to create a competing program results in loss of sales, then that is simply the result of applying the general

¹⁰⁴ Section 26 (4) Kenya's Copyright Act 2001

¹⁰⁵ Section 26(5) Kenya Copyright Act 2001

¹⁰⁶ *Kewanese Oil Co. V Bicorn Corp* 416 U.S 470, 476 (1974)

¹⁰⁷ David I. Bainbridge (2002) "Intellectual Property" Pearson Longman, 5th Edition, Glossary.

¹⁰⁸ Interoperability means the ability of one computer program to interface with another program so that they may work together.

principles of copyright law to computer programs in the same way it is applied to all other works.

Making of back-up copies by a lawful user that are necessary for the purposes of the lawful use of a copy of a computer program is also a permitted act. Software developers may make express provisions regarding the exercise of this right by a lawful user of software. The question, however, remains as to how many back-up copies are “necessary” as this may vary in different situations. The making of copies or adaptations of computer programs for the purpose of error correction is another special permitted act.

All these permitted acts are subject to certain conditions. One such condition is that the copies must be used for the purpose for which they were made and should be destroyed when the person’s possession of the computer program ceases to be lawful.¹⁰⁹

Without protection, copying and cloning reduce incentives for small but highly competitive providers of new works.¹¹⁰ Second, all embedded program code to some degree builds on previous program efforts; little really is invented from scratch.¹¹¹ Overly restrictive IP law then can actually retard further interoperability among programs and devices,¹¹² and development of products that do not yet exist.¹¹³

¹⁰⁹ Section 26(6) Kenya Copyright Act, 2001

¹¹⁰ Jerry H. Reichman, “Computer programs as applied scientific know-how: implications of copyright protection of commercializes university research,” 42 VAND. L. REV. 639, 650 (1989). “Today’s most productive and refined technical innovations are among the easiest of all forms of industrial know-how to duplicate. Because each product of the new technologies tends to bear its know-how on its face, like an artistic work, each is exposed to instant predation when successful and is likely to enjoy zero lead time after being launched on the market”

¹¹¹ Suzanne Scotchmer, “Standing on the shoulders of giants: cumulative research and the patent law,” 5J ECON. PERSPECTIVES 29 (1991)

¹¹² Richard Nelson and Robert Merges, “On complex economics of patent scope,” 90COLUM. L.REV. 839, 975: “Property rights that are too narrow will not provide enough incentive to develop the asset, while overly broad rights will preempt too many competitive developments”. The article contrasts with Edmund Kitch’s

3.4.1 Fair dealing

Fair dealing is a doctrine of limitations and exceptions to copyright which is found in common law jurisdictions.¹¹⁴ This doctrine allows users of software to make copies of copyrighted software for certain specific purposes. Users are allowed to make copies for purposes of scientific research, private use, criticism, review or reporting of current events subject to acknowledging the source.¹¹⁵ Any act falling within the fair dealing exception will not be an infringement of copyright. The fair dealing exception, like other exceptions in the Copyright Act, is a users right.¹¹⁶ The Copyright Act provides that copyright of a computer program shall not constitute fair dealing for the purposes of paragraph (a) of subsection (1) of section 26.¹¹⁷

3.4.2 Adaptations and Derivative Works

Sound recordings, films, broadcasts and cable programmes are derivative works. This is because they usually are based on original literary, dramatic, musical and artistic works.¹¹⁸ These works are therefore eligible for copyright. Subsistence of copyright in derivative works is less problematic since there is no requirement for originality. Translations,

prospect theory that contends that coordination economies result when all rights are concentrated with one owner. Edmund Kitch, "The nature and function of the patent system," 20 J.L. & ECON. 265 (1977)

¹¹³ US Department of Justice and Federal Trade Commission, *Antitrust Guidelines for the Licensing of Intellectual Property*, 3.2.3 (1995)

¹¹⁴ In the United States a similar doctrine of "fair use" is applied. Fair use differs from fair dealing in that fair use is interpreted more widely. The exceptions are not restricted to only those quoted in the Copyright Act as is the case in fair dealing.

¹¹⁵ Section 26(1) (a) Kenya Copyright Act.2001

¹¹⁶ David I. Bainbridge (2002) "Intellectual Property" Pearson Longman, 5th Edition Chapter 7, page 166

¹¹⁷ Copyright Act 2001, Section 26(1)(a) provides that "the doing of any of those acts by way of fair dealing for the purposes of scientific research, private use, criticism or review, or the reporting of current events subject to acknowledgement of the source."

¹¹⁸ David I. Bainbridge (2002) "Intellectual Property" Pearson Longman, 5th Edition, page 53

adaptation, arrangements of music and other alterations of a literary or artistic work shall be protected as original works without prejudice to the copyright in the original work.¹¹⁹

The copyright in a compilation or derivative work extends only to the material contributed by the author of such work, as distinguished from the pre-existing material employed in the work, and does not imply any exclusive right in the preexisting material.

Nimmer on *Copyright, a Well-Respectful Treatise*, states:

“The right to claim copyright in a non infringing derivative work arises by operation of law, not through authority from the copyright owner of the underlying work”.

The copyright in such work is dependent of, and does not affect or enlarge the scope, duration, ownership, or subsistence of, any copyright protection in the pre-existing material.

¹¹⁹ Article 2(3) of the Berne Convention on Literary and Artistic Works 1886

CHAPTER 4

Enforcement of Software Copyright in Kenya

4.1 Software piracy in Kenya

Software piracy has been defined as the illegal production and distribution of software applications, whether for business use or personal use¹²⁰. It is also the failure of a licensed user to adhere to the conditions of a software license or the unauthorized use or reproduction of copyrighted software by a person or entity that has not been licensed to use the software¹²¹.

Piracy has changed the landscape of our digital culture drastically. Peer to peer file sharing¹²² technology has allowed for easy spread of pirated software. People can share software using this system with complete disregard to the copyright that subsists in such software. Software piracy and piracy in general is a complicated and multifaceted topic that affects any aspects of human life. “Worldwide, one out of every three copies of software in use today has been obtained illegally,” said Business Software Alliance President and CEO Robert Holleyan¹²³. Software piracy is a crime that costs the software industry billions of dollars each year as per a study conducted by the Business Software Alliance in 2009. In this study Kenya was ranked among the twenty countries with the highest piracy rates in the world.

But the harmful effects of piracy reach far beyond the software industry, consumers and honest resellers are also victims of this unfortunate trend. Software piracy takes various

¹²⁰ <http://www.microsoft.com/piracy/default.mspix>

¹²¹ <http://www.microsoft.com/piracy/default.mspix>

¹²² File sharing is the activity of making files available to other users for download over the internet and smaller networks. Usually file sharing follows the peer-to-peer (P2P) model, where these files are stored on and served by personal computers of the users.

¹²³ <http://www.idc.com>

forms: end user piracy; hard disk loading and internet piracy¹²⁴. End-user piracy is the most common form of software piracy. In this kind of piracy a user copies software without appropriate licensing for each copy. This piracy takes the form of corporate end user piracy of business software whereby businesses use licensed software or exceed the number of users authorized under the license¹²⁵.

Companies purchase volume licenses but under-report the additional copies of the software which they have made. They could also provide their employees with access to software via a server, allowing those employees to download the software, but not monitoring the number of copies made. The employees could further pass the copies of the software among friends or others allowing them to copy the product without obtaining a license to do so. All these acts amount to piracy and if detected can be subject the company to law suits which are costly and result in negative publicity. The government should be in the front line in the fight against software piracy. However some government agencies are also guilty of end-user piracy. There is therefore a need for the government to lead by example and take measures to prevent software piracy in its departments and agencies.

Another form of software piracy is hard disk loading or pre-installing software on computers. Hard disk loading is the process where a computer manufacturer or reseller takes one copy of software and illegally installs it on many computers for sale¹²⁶. In essence these companies offer “free” business software with the purchase of computer hardware. Consumers should be on the lookout for proper license documentation when purchasing a new computer. This is

¹²⁴ study conducted by the Business Software Alliance in 2009

¹²⁵ Microsoft Corporation V Microskills Kenya Limited HCC No. 323 of 1999

¹²⁶ study conducted by the Business Software Alliance in 2009

because unlicensed software puts them at risk as they are liable to prosecution and also they do not get technical support from the software manufacturer for unlicensed software.

Hard-disk loading is rampant in Kenya and some companies have been sued for it. For instance in the case of Microsoft Corporation V Microskills Kenya Limited¹²⁷, whereby Microsoft sued the defendants for illegally preloading business software on hundreds of computers. The court found the defendant liable and awarded Microsoft Kenya shillings 25million. However the defendant merely applied for winding up of the company and Microsoft was left with expensive legal bills and costs', meaning theirs was an empty victory. This is a clear show of the fact that the courts' judgment did not serve as a deterrent and litigation was of questionable benefit. The copyright holder ends up incurring further costs as opposed to getting indemnified for the infringement of their rights.

Internet piracy is a form of piracy and refers to the use of the internet to provide access to downloadable copies of pirated software or to advertise and market pirated software which can be delivered through email or alternatively to offer and transmit codes or other technologies used to circumvent copy-protection security features¹²⁸. It involves a person making software available on the internet for copying purposes¹²⁹. Then the public can make unauthorized copies by simply downloading from the internet. The software can be offered free on certain websites or can be sold for prices below the actual market price on internet auction sites or by online businesses. Unscrupulous online vendors may even deceive customers into believing that they would be receiving legal and legitimate copies of software but this may not be the case. The internet has added a new challenge to software piracy. The internet allows

¹²⁷ HCC No. 323 of 1999

¹²⁸ <http://www.idc.com>

¹²⁹ There are various methods used by software pirates to offer and distribute pirated software such as Bulletin Board, E-mail, News Groups, IRC and FTP Site Links. www.microsoft.com

the electronic distribution of illegal software ore easily and on a larger scale than other traditional forms of software piracy.

Counterfeiting is also a form of piracy. Illegal copies of software are made onto recordable CD-ROMS and distributed in packaging that reproduces the manufacturer's packaging. Counterfeit registration cards with unauthorized serial numbers are often included in these packages. Some counterfeits use highly sophisticated and expensive technology to duplicate software so that it resembles genuine software products. They ay use the manufacturer's logo and trademarks to make the counterfeiters sometimes simply copy the product on disks without any retail packaging.

Most countries in the world have intellectual property laws for the protection of software and it is illegal to infringe those laws, but it is difficult to find out if the computer users have unauthorized software on their personal computers. Since detection is difficult piracy levels continue to soar. There are two international organizations that fight software piracy, Business Software Alliance (BSA) and Software Publishers Association (SPA). These organizations embark on trying to enlighten personal computer users about the intellectual property laws and are involved in lobbying governments about the need to protect the software business.

4.2 Impact of Software Piracy in Kenya

The software industry is a fast growing industry with great economic returns and software piracy threatens the industry's economic future. The software industry suffers astronomical losses as a result of piracy. Statistic provided by the United States Software Publishers Association relates the global losses in 1993 to illegal copyright violations. The reported

worldwide losses at 7.45 billion dollars and 1.57 billion in the United States alone. The scenario is no different in Kenya with estimated losses borne of software piracy being set at Kenya shillings. 912 million annually¹³⁰.

A study conducted by the BSA gave an indication of how rampant software piracy has become and the losses occasioned by it¹³¹. The losses resulting from software piracy were calculated using the known size of the legitimate software market in a country or region and using the piracy rate to derive the retail value of the software that was not paid for. BSA President and the chief executive officer Robert Hollyeman said that “these losses have a profound economic impact in countries around the world. Every copy of software used without proper licensing costs tax revenue, jobs and growth opportunities for burgeoning software markets¹³²”

The ore revenue that is lost because of piracy, the less that software producers will be willing to spend on research and development of new software products for consumers. This means that software piracy inhibits innovation. People who have engaged in the production of software expect a return for their efforts. If they do not receive any benefit, they will have to switch to a different sort of activity.

Software piracy also has an adverse effect on the economy because by spending money on pirated software, customers are also inadvertently contributing to the loss of tax revenue and employment in their region¹³³. Software piracy also damages the domestic software markets

¹³⁰ Statistic by the United States Software Publishers Association

¹³¹ <http://www.bsa.org/idcstudy>

¹³² <http://www.idc.com>

¹³³ For instance, 40 percent of application software in Canada is pirated. According to a 1997 Price Waterhouse Coopers study, if Canada's piracy rate were reduced 15 percent, the economic benefits in one year alone would be considerable.

as well as other neighboring markets in the region¹³⁴. This is because it allows infiltration of counterfeit software into these markets. The counterfeits are cheaper and more readily available in the market than the original product.

The quality of pirated software is getting better with technological developments in copying. This means that the counterfeit software that is a result of pirating is as good as the original software. These copies work as well as the originals and sell for significantly less money. However users of copied or counterfeit software will usually get inadequate documentation, will not benefit from technical support and will also lack software upgrades. This should act as a disincentive for people to obtain pirated software, though it is not necessarily the case.

The software industry loses money, or the opportunity to earn money, when software piracy is going on. It can protect itself with different types of legal and technical measures, but it sees that pirates are one step ahead all the time. Codes can be hacked by skilled computer freaks and encryption can be used when distributing the software.

4.3 Copyright Enforcement in Kenya

Copyright enforcement entails putting into force the protection granted by statute to copyrightable material. The growth in technology has made it easier, faster, and cheaper and more private to copy and transfer software and computer programs. This translates directly to a larger volume of infringement to be dealt with. This technological growth takes the enforcement of copyright all the more difficult. Legal rights are granted on the premise that they are enforceable as the law does not act in vain. Unimpeded infringement of copyright undermines copyright laws thus the need to address the issue of enforcement of copyright.

¹³⁴ <http://www.microsoft.com/piracy/default.msp>

There are several bodies and institutions that are involved in the enforcement of copyright law in Kenya. The main body that handles the administration of copyright and related matters is the Kenya Copyrights Board. This board is formed as provided by the Copyright Act, 2001.

The board shall in part have the responsibility to “direct, co-ordinate and oversee the implementation of laws and international treaties and conventions to which Kenya is a party and which relate to copyright and other rights recognized by this Act and ensure the observance thereof¹³⁵”. The board also has the responsibility to educate the public on copyright and related rights. Further it is involved in checking the effectiveness of copyright legislation and making recommendations for its improvement when necessary.

4.4 The Ineffective Institutional framework for enforcement of copyright

The Kenya Police plays a major role in copyright and related rights enforcement. The actual arrests and prosecution of copyright offenders is carried out by the Kenya Police. The greatest problem with the involvement of the police is that they lack the technical knowledge that is mandatory when handling copyright issues especially charge documents being drawn along other problems which greatly inhibit the prosecution of copyright infringement and related offences¹³⁶.

There are a number of government agencies that are actively involved in copyright enforcement. The Kenya Bureau of Standards is one such agency and it has a role to play in copyright enforcement. The Kenya Bureau of standards (KEBS) was established by an Act of

¹³⁵ Section 5 (a) Copyright Act 2001

¹³⁶ International Intellectual Property Alliance 2003 Special 301 Report

Parliament. The Standard Act, Chapter 496 of the Laws of Kenya and it started its operations in July 1974. This government body generally has the responsibility of providing quality assurance for products offered for sale in the Kenyan market. The Bureau can prevent an influx of pirated software into the Kenyan market, by declaring such software counterfeit and hence should not be sold in the domestic market.

The Kenya Revenue Authority is involved in enforcement due to the role they play mainly through their customs and excise department at the different points of entry into the country. Such entry points include the port of Mombasa and border points such as Malaba and Lungalunga. The customs department is involved in the inspection of goods being imported into or exported out of the country. The Authority therefore has control as to the goods that gain entry into the country and consequently can prevent the movement of counterfeit software into or out of Kenya. Kenya has been seen to have largely become a haven of software pirates and preventing entry of counterfeit software into the country would go a long way in countering software piracy.

4.5 Problems Encountered in Copyright Enforcement

Computer technology is very fast and this poses a great challenge to the enforcement of copyright in, for instance, computer software. Due to its dynamic nature computer software is difficult to protect. One of the challenges faced is whether the traditional concepts of software protection are applicable in the new technological concepts. Legislation may fail to adequately cater for the fast changing software industry. The legislative provisions for software protection through copyright may fail to effectively protect new technology.

Changes in storage, communication and information processing technologies also affect the right of the proprietor to control the copying, publication and production of derivative works respectively. This makes copyright enforcement even more problematic.

The limited technical know-how in the various enforcement agencies greatly undermines their ability to efficiently enforce copyright and other related rights. This is especially so in the case of software copyright which is a more complex and technical area.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSION

Computer software is provided with copyright protection as a literary work. Code is the expression of an idea thus it is protected. Different programming languages can produce different codes when writing the same program. This raises the question of whether copyright subsists in all resulting programs.

The software industry is very dynamic with newer, better products created at a very fast pace. It would be ridiculous to expect the law to keep up with such a pace. However, there should be some effort to make some changes rather than trying to place computer software into categories in which it does not fit.¹³⁷

University of Stanford law Professor Paul Goldstein states that one of the law's roles in society is to reduce uncertainty.¹³⁸ This has not been accomplished by the current laws in the field of software copyright protection. Moreover, it is clear from the above arguments that there are many problems with trying to fit computer software under conventional laws. Due to the functionality aspect of software, questions have risen as to whether it is adequately catered for by copyright law, or would patent law be better placed to protect software. Some observes have characterized the difficulty due to software being "too much of a writing to fit

¹³⁷ Douglas C Derrick, *It Doesn't Fit: The Dilemma Of Computer Software And Patent/Copyright Law*. E Law _ Murdoch University Electronic Journal of Law, vol 3, no 1 (May 1996).

¹³⁸ Computer Science and Telecommunications Board National Research Council. "Intellectual Property Issues in Software" Washington: National Academy Press, 1991, at 13.

comfortably into the patent system and too much of a machine to fit in the copyright system”¹³⁹

Software piracy is a form of theft, as it involves the unauthorized acquisition of another person’s intellectual property. However, people have the notion that software piracy is not as serious a crime as other kinds of theft since nothing is physically taken. Some people tend to think of property as a material thing, and thus have a hard time regarding a computer program as property. There is usually no immediate effect on the inventory or productive capacity of the creator of a piece of software if someone makes copies of software and uses the copies.

The problem of copyright of infringement is growing larger both nationally and internationally. Therefore to a larger extent the effectiveness of any nation’s efforts to protect the rights of its copyright owners depends increasingly on international coordination of enforcement efforts and the harmonization of copyright law across countries.

The main problem areas in Kenya in relation to copyright infringement are inadequacies in the law and weak enforcement of existing laws. In order to adequately tackle the problem of piracy or copyright infringement the issue of enforcement must be dealt with.¹⁴⁰ The public’s failure to appreciate the importance of intellectual property and the need to enforce the rights related thereto is another deterrent to the enforcement of the rights related to copyright. There is also a further need to review the existing copyright law so as to effectively protect software.

¹³⁹ United States. Cong. Office of Technology Assessment. “Computer Software and Intellectual Property” Background Paper. 101st Cong, 1st & 2nd session. Washington: GPO, 1990, at 11

¹⁴⁰ International Intellectual Property Alliance 2003 Special 301: Kenya.

5.2 RECOMMENDATIONS

One major area that requires reforms is enforcement, the copyright enforcement systems and procedures in place require an overhaul. In relation to copyright enforcement the Kenyan Government can play a big role and there are many benefits that will accrue from a better enforcement system. The Government's involvement would be through legislation, enforcement and through leading by making use of only licensed copies of software.

Government agencies charged with the responsibility of enforcing copyright and related rights should develop and implement an action plan to tackle piracy. The training of appropriate Government officials on intellectual property enforcement is mandatory if the fight against software piracy is to be won. Customs officials require training for them to understand the core intellectual property issues when dealing with imported software. Adequate border measures should also be put in place so as to prevent the entry of counterfeit goods into the country. This will ensure that Kenya does not continue to be a haven for counterfeit goods especially software

Police officers are another category of public officials that require training. Copyright law is not a subject covered in police training and as a result police officers have little or no knowledge of the law in this field. As a result a lot of difficulty is experienced when writing up charge documents among other procedures when dealing with copyright cases. The Commissioner of Police has made an attempt to remedy this by creating a "Special Crime Prevention Unit" to handle copyright issues. However, this effort has not been fruitful since the officers who are members of this unit did not undergo any form of training. For this effort to have any meaningful impact on curbing software piracy the officers need to be trained on

what rights are protected in intellectual property and what amounts to infringement of these rights. This will ensure they adequately protect the rights of copyright holders.

Police and customs have been reluctant to pursue raids against copyright violations, sending a message to pirates and the general public that there are no negative consequences for engaging in acts of piracy.¹⁴¹ Police prosecutors are charged with the responsibility of prosecuting copyright infringement cases but they are however, generally ill prepared to handle these cases. Training these prosecutors comprehensively on all aspects of intellectual property rights and their violations, with specific emphasis on software copyright would go a long way in easing the difficulties face when prosecuting these cases.

Copyright cases used to be handled by the High Court and the Resident Magistrates Courts but with the creation of the Milimani Commercial Courts, copyright issues were moved to this court. This was intended to ease the delays and backlog of cases. However, this has not been entirely achieved. Further, the magistrates handling these cases ordinarily lack the prerequisite knowledge of copyright law more so in relation to the relatively more complex field of software copyright.

The judicial process is very slow and expensive and a complainant who brings a copyright infringement suit stands to gain very little from suing the infringer.¹⁴² This ensures that pirates have a free hand and continue to infringe undeterred. To tackle the problems associated with the current judicial system in handling copyright matters the Government should consider developing a specialized intellectual property court to handle intellectual property matters. This would ensure that intellectual property matters are handled by professionals who

¹⁴¹ Copyright 2003 Intellectual Property Alliance 2003Special 301: Kenya.

¹⁴² See Microsoft Corporation V Microskills Kenya Limited

understand the complexities and technicalities that accompany these matters. This would ensure that copyright infringement matters are disposed of in a speedy and just manner. Alternatively the Government could continue using the judicial system that is in place but embark on educating the magistrates and judges handling copyright matters, so as to be knowledgeable in this field.

Due to the notion that intellectual property is not “property” educating the public on the presence of intellectual property rights and the need to protect these rights would go a long way in reducing cases of infringement. The various players in the software industry should play a role in this education campaign. An informed public would know the importance of software to business and the damage caused by illegal use. The software industry should contribute to creating public awareness of intellectual property rights and the need to uphold them. This would translate to a decrease in the astronomical losses occasioned by software piracy.

Computer programs are a special type of intellectual property and they require a special type of protection. As seen above copyright law provides some form of protection but also has many shortcomings. For the existence of a healthy software market and to encourage innovation the current laws must be reviewed. However changes in the legislation must be technically and legally consistent. Furthermore, they must encourage innovation by protecting the innovator and also ensure and foster market growth.

Copyright law and policy is fundamentally a matter for individual countries to set, although the international layer of law and policy helps set the framework that individual countries work within. It is at the domestic level that intellectual property rights are granted, exercised

and enforced, and that any measures against the misuse of rights are applied. Users of copyright protected material need to get authorization from the rights holder under national laws, or make use of limitations or exceptions under national laws. So the practical impact of the IP system is ultimately determined by what domestic laws and legal systems provide for. For domestic policymakers, understanding the extent of the international framework and the flexibilities it offers is important for optimizing policy outcomes.

Kenya as a member of the World Intellectual Property Organization (WIPO) signed the WIPO Copyright Treaty in 1996 but almost 10 years later the same is yet to be ratified. The WIPO Copyright Treaty provides for the protection of computer programs as a literary work and such protection applies to computer programs, whatever may be the mode or form of their expression.¹⁴³ The process of balancing private rights and the public good is integral to the ongoing development of IP policy at both national and international levels, and is the focus of WIPO's work today. The ratification of the WIPO Copyright Treaty will ensure copyright protection of eligible works as well as enforcement of all copyright related rights in the contracting countries.¹⁴⁴ It will also be possible to maintain a balance between private rights and public good in line with WIPO's objectives. Passing national legislations that corresponds to the international regime, such as GATT TRIPs Code which includes counterfeiting would be another plausible form of reform.¹⁴⁵

The scope of legal interpretation and uncertainties of the law have spurred some stakeholders to advocate for a régime of more definite and comprehensive legislation to protect software. The viability of this is debatable since software technology is dynamic and the law risks

¹⁴³ Article 4 WIPO Copyright Treaty.

¹⁴⁴ Article 4 WIPO Copyright Treaty

¹⁴⁵ Intellectual Property Confronts Counterfeiting in Africa: Protecting Innovators and Consumers in Cybersociety, Dr Ben Sihanya.

obsolesce. The alternative argument would be to have general principles of software copyright law and courts being given discretion in its application. There is a danger of the scope of protection of software by copyright being too wide. This would result in the unjustifiable inhibition of innovation and competition in the computer industry. Therefore, there is a need to find a balance between the conflicting interests.

Inadequacies in the law can be dealt with by making reforms in current legislative provisions. For instance, the penalties available for copyright infringement are not punitive enough to act as deterrent to software pirates. A regime of stringent penalties both in terms of fines and jail sentences for copyright infringement would deter further infringement of copyright.

The Copyright Act provides that a work shall not be ineligible for copyright by reason only that the making of the work or the doing of any act in relation to the work involved an infringement of copyright in some other work.¹⁴⁶ This provision in itself is an abuse to the rights conferred by the copyright legislation, as it does not effectively prevent the illegal copyright of work.

However, the best protection against software piracy lies neither in physical barrier to copying nor in stiffer penalties. The best way to stop piracy is to instill a frame of mind among software users to view software piracy as theft. This means breaking down the web of excuses which pirates justify their actions, and leaving them to recognize what they are involved in, is theft. Ultimately, this will be the most important protection against any violation of copyright related rights. Without an honest majority, no amount of effort by the police will be effective, more so when dealing with software piracy which is largely difficult to detect.

¹⁴⁶ Section 22 (4) Copyright Act.

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