Copyright Implications, Opportunities and Challenges of Putting African Scholarly Journals Online

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Abstract

This paper aims at investigating the copyright implications, opportunities and challenges of putting African scholarly journals online. To that effect, the paper discusses the subject matter of copyright, the nature of intellectual property holders’ rights, the limitations to these rights, and the ownership of the copyright in online journals. The paper also discusses the allowable copyright exceptions of fair use, and its abuse, which is plagiarism. Issues of licences to use the online materials, domain name registration, hosts and online service providers’ rights and liabilities mainly in relation to framing, linking and caching, are also part of this paper. Finally, the paper points out practices that are helpful in the protection of copyright on the Internet.

Key words: Online journals, Internet, copyright, fair use, copyright infringement, framing, linking.
Introduction

The right to information always presupposes a “source” of the information, which is the intellect, and the “form” of the information, which is the expression. The source, who is the creator or formatter of information, puts it into some form of expression, which becomes an intellectual creation. An intellectual creation needs protection because it is personal and private. The idea of copyright, and indeed intellectual property rights, originates from this understanding. Much as intellectual property rights date back as far as the beginning of humanity, legal recognition of these rights is not as old. It is only in 1883 and 1886 that States signed the Paris Convention for the Protection of Industrial Property (Paris Convention) and the Berne Convention for the Protection of Literary and Artistic Works (the Berne Convention) respectively. Considering the time it came into force, and even with the several amendments, the Berne Convention could not possibly take care of the fast changing nature of copyright, particularly on the Internet. Thus in 1996, the World Intellectual Property Organisation (WIPO) adopted two ‘Internet’ treaties: the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT). The intention of adopting these treaties is to update the international protection of copyright by taking into account the realities of the Internet age (Kwakwa 2003). The treaties facilitate the use of cyberspace by clarifying the rights of authors on the Internet, and allowing the extension to the digital environment of exceptions to those rights under ‘fair use’ considerations (Braga 1998). The Berne Convention and the WCT provide the basic guidelines for copyright on the Internet.

Putting African scholarly journals online has its own implications, opportunities and challenges, some of which are copyright related. This paper, drawing mainly from International and South African intellectual property law, discusses some of those implications, opportunities and challenges. To that effect, the paper discusses the usage of internet in Africa, followed by the subject matter of copyright, the nature of intellectual property rights, and the ownership of copyright, which ownership extends to assignees and licensees. Before addressing the issue of domain names and related issues of linking, framing and caching, there is a discussion on fair use and its diametric, plagiarism, which is related to copyright infringement. Finally, the paper raises some suggestions to deal with the challenges of not only putting African scholarly journals online, but also of using the Internet in Africa as a whole.

Internet Usage in Africa

Africa accounts for 14.3% of the world’s population, but Internet users in Africa account for only 3.5% of all world Internet users. Out of an African population of about 955 million, Internet users are just about 51 million, accounting for an Internet penetration of 5.3% while the percentage penetration for the rest of the world is 24.7% and 21.9% for the whole world including Africa. Of the 51 million, 25.9 million users are concentrated in Africa’s Top 3 Internet Countries: Nigeria, Egypt and Morocco. Africa’s Top 10 Internet Countries account for 44.2 million users out of the 51 million. In terms of use growth, the world growth usage between 2000 and 2008 has been 305.5% (from about 360 million in 2000 to about 1.46 billion users in 2008); Africa’s usage has grown at 1,031.2% (from about 4.5 million in 2000 to about 51 million users in 2008). The statistics do not show how many of the targeted readers have access to the Internet. Nonetheless, the small numbers show how hard it still is for African scholars to access information on the Internet. Internet even at higher institutions of learning is still not fully
accessible. The rapid expansion of the Internet along with the emergence of ever more sophisticated copying technologies, nonetheless bring additional demand for and continuous adaptation of copyright protection in the area of digital information (Braga 1998), and are a challenge to the cyber infrastructure.

**Subject Matter of Copyright Protection**

The subject matter of copyright protection includes every production in the literary, scientific and artistic domain, whatever the mode or form of expression. For a work to enjoy copyright protection, however, it must be an original intellectual creation. The ideas in the work do not need to be new but the form of expression, be it literary or artistic, must be an original creation of the author, or at least have its origin in the labour of the author. Copyright law protects the creativity in the choice and arrangement of words, colours, shapes and so on. Protection also extends to the form of expression of ideas and not to the ideas, procedures and methods of operation or mathematical concepts as such (Article 2 of the WCT). However, the quality, value or purpose attaching to the work has nothing to do with its protection. Protection extends to a work whether it is good or bad, and whether or not it is of any use (WIPO 2004). Under Articles 4 and 5 of the WCT, copyright protection extends to computer programs and databases respectively; but in case of databases, the protection does not extend to the data or the material itself (Polanski 2007). For an online journal, the copyrightable works are mainly literary works, artistic works, and computer programs. These include the articles in the journals, any pictures in the journals, or the journals themselves, and the computer programs. Much as the quality, purpose and taste of a work do not matter, the editors for the journals can set their own standard of publishable articles.

**Nature of Intellectual Property Rights**

The nature of rights in copyright is twofold. It includes on the one hand the right to be identified as the author of the work, that is, the economic or paternity right; and on the other hand, the right to object to distorting and derogatory treatment of the work - the moral or integrity right.

(i) **Economic Rights**

Copyright in a literary work vests in the author the exclusive right to do or to authorize to reproduce or copy the work in any manner or form (Article 9 of the Berne Convention and section 6 of the South African Copyright Act (the Copyright Act)). This includes the authority to publish the work; perform the work in public; make a sound recording of the work; broadcast the work; make an adaptation of the work; translate the work; and do, in relation to an adaptation of the work, any of those acts.

Traditionally, the right of reproduction, that is, the right of the owners of copyright to prevent others from making copies of their works, is the most basic right under copyright. Reproduction includes the storage of works in computer memories and the copying of computer programs on diskettes, CD-ROMS, CD-writeable ROMS and so on (WIPO 2004). The right to make reproductions of a work, therefore, is applicable to reproducing a work in digital format, in a permanent, temporary, incidental or transient nature. In relation to any work, ‘reproduction’ also
includes a reproduction made from a reproduction of that work (Copyright Act section 1(c)). This means that the making of a copy of an intervening copy of a work (indirect copying) amounts to an infringement of the copyright in the original work.

Concerning the right of reproduction on the internet, the Diplomatic Conference adopted the following statement:

The reproduction right, as set out in Article 9 of the Berne Convention, and the exceptions permitted thereunder, fully apply in the digital environment, in particular to the use of works in digital form. ... the storage of a protected work in digital form in an electronic medium constitutes a reproduction within the meaning of Article 9 of the Berne Convention.

The permanent electronic storage of a work is internationally a restricted act. For example, America’s White Paper on Intellectual Property and the National Information Infrastructure notes that under US law the placement of copyrighted material into a computer’s memory is a reproduction of that material. Thus generally the following acts amount to making copies: scanning a printed work into a digital file; digitalizing a work; uploading a digitalized file from a user’s computer to a bulletin board system or other server; downloading a digitalized file; saving a file; and transferring a file from one computer network user to another (WIPO-UNISA 2008). It is likely, from the above examples that ephemeral reproductions in RAM (Random Access Memory – a computer’s temporary memory) amount to copies. Correspondingly, in the case of Pastel Software (Pty) Ltd v Pink Software (Pty) Ltd and another 399 JOC (T), the Court held that the temporary transient electronic reproduction of a work on a computer screen constitutes copyright infringement. This is however controversial since Internet by its very nature involves copying and reproducing works.

Notably, the right to control the act of reproduction is the legal basis for many forms of exploitation of protected works. Other rights such as to translate or adapt are recognized under copyright in order to ensure that the basic right of reproduction is respected (WIPO 2004). Translations and adaptations are themselves works protected by copyright, albeit reproductions of the original. Therefore, in order to reproduce and publish a translation or adaptation, the publisher must have the authorization both of the owner of the copyright in the original work and of the owner of copyright in the translation or adaptation (WIPO 2004). Even where the translation or adaptation was an infringement, one who copies it infringes the infringed copy. Thus according section 2(3) of the Copyright Act, 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’. This is another contentious issue, which is contrary to the principle of equity, which states that ‘one who comes into equity must come with clean hands’.

Beyond the right of reproduction, authors of literary and artistic works also enjoy the right of distribution, that is, the exclusive right of authorizing the making available to the public of the original and copies of their works through sale or other transfer of ownership (Article 6 of the WCT). They furthermore enjoy the right of authorizing any communication of their works to the public, by wire or wireless means including making available their works to the public in such a way that members of the public may access these works from a place and at a time individually
chosen by them (Article 8 of the WCT). In terms of Article 8 making available copyrighted material on the Internet, via a website, newsgroups, file-sharing systems, File Transfer Protocol and so on to the public without authorisation, amounts to infringement (Polanski 2007). The right of distribution, and the right of communication to the public, are particularly important for online publications.

(ii) Moral Rights

Moral rights are intangible interests that associate an author with his or her work. Moral rights confer upon the author a right to claim authorship of the work and to object to any distortion, mutilation or other modification of, or other derogatory action in relation to the said work which would be prejudicial to the author’s honour or reputation (Article 6bis(1) of the Berne Convention and section 20 of the Copyright Act). By their very nature, moral rights only vest in a natural person, and they are not transferable. These rights are independent of the usual economic rights and remain with the author even after the transfer of economic rights.

Limitations on Copyright Protection

Copyright protection is limited both in time and in place. The rights of the copyright owner exist for a duration, which begins with the creation of the work and continues until some time after the death of the author. The duration provided for in the Berne Convention is the life of the author and fifty years after the death of the author (Article 7.1), but countries may grant a longer period than that (Article 7.6).iv ‘The purpose of this provision in the law is to enable the author’s successors to have economic benefits after the author’s death. It also safeguards the investments made in the production and dissemination of works’ (WIPO 2004).

The second limitation is a geographical or territorial limitation. The Berne Convention grants protection to authors who are nationals of one of the countries of the Union, for either their published or unpublished works (Article 3(1)(a)). National law protects the copyright owner against acts restricted by copyright in that country. For protection against such acts done in another country, the copyright owner must refer to the law of that other country. Membership of both countries to one of the international conventions on copyright eases the practical problems arising from this geographical limitation (WIPO 2004). The territorial limitation is highly adverse to the Internet (see below).

Ownership of Copyright

The owner of copyright in a work is generally, at least in the first instance, the person who created the work, that is to say, the author of the work. The term “author” means, in relation to a literary or artistic work, the person who first makes or creates the work (section 1(1)(a) of the Copyright Act), and in relation to a published edition, the publisher of the edition (section 1(1)(g)). For a literary or artistic work or computer program which is computer–generated, “author” means the person by whom the arrangements necessary for the creation of the work were undertaken (section 1(1)(h)). In relation to a computer program, the person who exercised control over the making of the computer program is the “author” (section 1(1)(i)). In the case of online journals, therefore, the owners include the authors of the articles, the publishers of the
journal, and the computer programmer, though each owns a separate element of the journal. National laws sometimes contain exceptions to this and provide that where an author creates a work under a contract of service, the employer, not the author, is the owner of the copyright in the work.¹

Assignment and Licence of Copyright

The owner of the copyright may transfer by assignment to another person or entity the economic rights to do some or all the acts the owner exclusively has; for part of or all the duration of the copyright, and limited or unlimited to a specified geographical area (section 22(2) of the Copyright Act). The author of a literary work, in allowing or asking another person to publish it, thereby assigns the right of reproducing the work or communicating it to the public. The implication of the assignment is that ownership of the copyright vests in the assignee and the assignor will have no economic rights in the protected material (Galago Publishers (Pty) Ltd v Erasmus 1989 (1) SA 276 (A) at 279F). For published journals, permission to place them online would be by way of assignment.

Where assignment of copyright is not legally possible, licensing can achieve almost the same practical effect. Licensing happens when the owner of the copyright, while remaining the owner, authorizes someone else to exercise all or some of the owner’s rights subject to possible limitations. When such authorization extends to the full period of copyright and to all the rights protected by copyright, the licensee is, vis-à-vis third parties and for all practical purposes, in the same position as an owner of copyright (WIPO 2004). This notwithstanding, a licence passes no proprietary interest in the copyright; that remains vested in the owner. The licence in no way impinges on the powers of the owner whose rights at all times remain extant and concurrent (Video Parktown North (Pty) Ltd v. Century Associates & others 1986 (2) SA 623 (T) at 633). The licensor, therefore, can always rescind the contract for breach. This could be because anything done under the authority of the licensee if it is within the terms of the licence is ascribable to the licensor (section 22(8)). The licence agreement should thus clarify the exact confines of the licence.

Part of the licence to use a journal normally includes the payment of a subscription fee to the publisher. The permission comes with a provision for a username and password, which in turn provide a level of security to the resources. The resources would thus not easily be available via the common website search engines. Security also requires that the password be of a certain length, with a combination of letters and numbers, in addition to a user suspension and password recovery policy.

A license may be exclusive, whereby the licensee exercises all the licensor’s exclusive rights of authorization to the exclusion of all others including the author, or non-exclusive, whereby the licence does not exclude others from exercising the same rights. When the parties enter clear agreement, the licence is express; otherwise, it is implied or presumed (WIPO-UNISA 2008). An exclusive license must be in writing and signed by or on behalf of the licensor and the licensee may in turn grant sub-licenses (section 22(3) of the Copyright Act). A non-exclusive license may be written or oral (section 22(4)); inferred from conduct (implied), and may be revoked at any time but subject to any contract that may have been entered in its regard. Like an assignment, a
licence may be granted in a future work (section 22(5)). The license granted by the owner of the copyright is binding on all one’s successors in title to one’s copyright interest, with only the exception of a *bona fide* purchaser without notice (section 22(7)).

When a licence is written or oral, it is express; when inferred from conduct, the licence is implied. The permission to download material from a webpage can be part of an implied licence granted by the person who made the material available on the web in the first place. In putting the content in a form specifically so that anyone on the Internet who uses a browser to request a copy of the material at the relevant address can download it, the owner seems to grant permission. However, as a principle of common law, the terms of the implied licence are limited in nature and there is ‘no reason to imply that by putting copyright material on the Internet the copyright owner is by implication permitting surfers to re-use the material for commercial purposes’ (WIPO-UNISA 2008: 79). Fair use (see below), however, seems justified under the implied licence.

The laws of some countries permit compulsory licensing, that is, the broadcasting of protected works without authorization, but with fair remuneration paid to the owner of copyright. Under this system, a right to remuneration substitutes the exclusive right to authorize a particular act. The licence is “compulsory” because it results from the operation of law and not from the exercise of the exclusive right of the copyright owner to authorize particular acts (WIPO 2004). Otherwise, copyright licences are mostly common in the distribution of computer programs or software and they are normally in terms of shrink-wrap agreements. In the case of fair use of online journals, compulsory licences may not be necessary.

**Fair Use on the Internet**

Much as the owner of copyright in a protected work may use the work as s/he wishes, there are legally recognized rights and interests of others that also count. It is in line with the right of access to knowledge and information, and the right to education, that certain acts normally restricted by copyright may, in circumstances specified in the law, be done without the authorization of the copyright owner. Such is described as “fair use” and it involves acts like the reproduction of a work exclusively for personal and private use; and making of quotations from a protected work, provided always that the source of the quotation and the name of the author are mentioned, and that the extent of the quotation is compatible with fair practice (WIPO 2004). The Berne Convention refers to this as “free use”. Thus, ‘It shall be permissible to make quotations from a work which has already been lawfully made available to the public, provided that their making is compatible with fair practice, and their extent does not exceed that justified by the purpose’ (Article 10(1)). The utilization, to the extent justified by the purpose, of literary or artistic works by way of illustration in publications, broadcasts or sound or visual recordings for teaching, provided such utilization is compatible with fair practice, is also permitted in the Convention ((2)). In all cases, mentioning the source, and of the name of the author if it appears is a requirement ((3)).

Furthermore, Article 10*bis* of the Convention requires countries:

- to permit the reproduction by the press, the broadcasting or the communication to the public by wire of articles published in … periodicals on current economic, political or
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religious topics, and of broadcast works of the same character, in cases in which the reproduction, broadcasting or such communication thereof is not expressly reserved. Nevertheless, the source must always be clearly indicated.

Under the WCT, countries may "provide for limitations of or exceptions to the rights granted to authors of literary and artistic works under this Treaty in certain special cases that do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the author" (Article 10(1)). This provision the above provision equally applies to the Berne Convention (Article 10(2)). The Agreed Statement concerning Article 10 of the WCT states that the Article permits countries "to carry forward and appropriately extend into the digital environment limitations and exceptions in their national laws, which have been considered acceptable under the Berne Convention". Moreover, these provisions permit countries to devise new exceptions and limitations that are appropriate in the digital network environment.

Likewise, the Copyright Act (section 12) provides cases of use that does not infringe copyright. These include fair dealing for the purposes of research or private study, or personal or private use; for the purposes of criticism or review of that work or of another work; or for the purpose of reporting current events, provided the source and the name of the author if it appears on the work are mentioned. Besides, where someone uses the work for the purposes of judicial proceedings or reproduces it for the purposes of a report of judicial proceedings, there is no copyright infringement (2). Quotations of a work that is lawfully available to the public are permitted, provided that the quotation shall be compatible with fair practice, that the extent thereof shall not exceed the extent justified by the purpose and that the source and the name of the author if it appears on the work shall be mentioned (3). Use, to the extent justified by the purpose, by way of illustration in any publication, broadcast or sound or visual record for teaching, provided that such use is compatible with fair practice and that the source and the name of the author if it appears on the work are mentioned, is also permitted (4). In addition, fair use allows reproducing an article published in a periodical on any current economic, political or religious topic if the publisher has not expressly reserved such reproduction and the user clearly mentions the source (7). To determine fair use, courts consider the nature of the work copied (creative, factual); the extent of the copying (amount and substantiality of the portion used); the nature of the entity that makes or allows the copying; the effect of use upon the potential market, and the purpose and character of the use (research, criticism, parody, commercial, educational) (Rife 2007). These considerations shall be necessary in case of any complaints as to the use of online materials. Anything short of fair use will amount to plagiarism or other infringement.

Plagiarism

Plagiarism means using someone else’s work and passing it off as one’s own. Plagiarism, is unethical, fraudulent, and a cybercrime when it comes to materials online. To that end, everyone should produce original work. However, it is rare to come up with completely new ideas, and it is prudent to refer to what others have said on the same issue. The academic discourse depends on the foundation of the work of many scholars and the researcher should consider their viewpoints as well, to present an “informed” position. It is mandatory in the copyright regime, however, to acknowledge the source of the ideas by using references or bibliography, footnotes, endnotes, quotations and citations and brackets linked to the quotation. Students and researchers do not
always take this route. The ease of cutting and pasting from electronic resources, the intricacy of the ideas one is dealing with, the complexity or incompetence in the language of instruction, and perhaps the constraints of time, among others, make it very tempting to download a text and present it as one’s own.

Institutions of higher learning prescribe tough disciplines against the students who contravene the policy on academic referencing. Unfortunately, lecturers in research methodology do not always clearly communicate to the students the reasons for academic referencing. Citation informs the reader that the writer is aware of and has considered the current debates on the topic, and thus writes with authority. Citation also gives due credence to the idea of copyright protection as a way of accrediting someone else’s intellectual property right (Leeman 2008). Putting journals online requires better ways of explaining and enforcing the rules against plagiarism by balancing them with the provisions on fair use.

Citing online sources

Mentioning the source and name of the author is a basic requirement for fair use. Proper citation for a literary scholarly work normally requires the name of the author and the publisher as owners of the copyright. The title and year of publication of the work are also required in order to access the source. Where online journals are simply uploaded from already published journals, the same rules apply, and, as required for all online materials, the website accompanied by the date when the work was accessed must be cited. The date is particularly important for regularly updated works.

The Domain of Domain Names

Domain names and their registration are issues that mostly arise in trademarks. However, as far as the Internet is concerned, there is a close link between copyright and trademark. The domain name is simply an address of a website. It has a unique numeric equivalent, which is stored in the Domain Name System database. The domain name is the registered address, which permits a surfer to access another computer on the Internet, and it is therefore indispensable to the routing of traffic on the Internet. There are mainly two types of top-level domains (TLDs), generic (gTLDs, that is, edu, com, net, org, gov, mil, and int), and two letter country code top-level domains (ccTLDs) (Polanski 2007).

The original intention of domain names was to perform the technical function of interconnection; they have nonetheless spontaneously mutated into a form of business identifier. Consequently, ‘domain names often come into conflict with business identifiers in the ‘real’ world, such as trademarks, the names of famous persons, the names of places or, in short, with the intellectual property of the image that has developed in the non-virtual world’ (Gurry 1999: 396-397). To facilitate centralization of the Internet address space allocation and root server system management functions, the Internet Corporation for Assigned Names and Numbers (ICANN) was in 1998 formed. The formation was in response to a suggestion by the U.S. government that the private sector creates a body to assume responsibility for certain administrative and technical aspects of the Domain Name system (Kwakwa 2003). ICANN manages domain name registration and allocates them on a first come first served basis. Thus, other than in cases of
famous and well-known marks, no one can claim a prerogative over a domain name. In any case there is need to carefully choose a domain name that has a connection with the subject matter of the website, which is scholarly journals. Thus, links such as ‘ac’ or ‘edu’ for academic or education would be appropriate. However, if ccTLDs are to be used, there is need to agree on particular countries’ codes.

**Importance of Copyright Protection – The Opportunities**

African countries need to rely more on intellectual property rights protection as a major mechanism to foster innovation, research and encourage the sharing of knowledge. Copyright, if effectively implemented, serves as an incentive to authors and publishers to create and disseminate knowledge. Society must accept copyright in order to encourage intellectual creativity, ‘to ensure the progress of the sciences, the arts and of knowledge in general, to promote the industry using authors’ works and to render it possible to distribute such works in an organized manner among the widest possible circle of interested persons’ (WIPO 2004). Copyright protection encourages formal research and development activities, thus fostering the creation of new knowledge.

The essential role of copyright in Africa is the facilitation of publication and dissemination of a work so that the creator of the work can derive benefits from it. It is only in this way that copyright protection, from the viewpoint of the creator of works, makes sense (WIPO 2004). As far as protection is concerned, developing countries have traditionally privileged rapid dissemination of knowledge at the expense of the protection of intellectual property rights of foreigners (Braga 1998). This trend must change.

Copyright is an essential element of the development process mainly because intellectual creation is one of the basic prerequisites of all social, economic and cultural development. Enrichment of the national cultural heritage depends directly on the level of protection afforded to literary and artistic works. The greater the number of a country’s intellectual creations, the higher its renown, the greater the number of productions in literature and the arts, the more numerous their auxiliaries (the performers, producers of phonograms and broadcasting organizations) in the book, journal, record and entertainment industries (WIPO 2004). Putting journals online will greatly contribute to opening Africa to the world by making known research and academic development trends.

Intellectual Property Rights (IPRs) can also influence economic activity using proprietary knowledge and information owned by both domestic and foreign residents in production and consumption (Braga 1998). For example, knowledge and information on agricultural development assists the developing countries to improve their agricultural sector. Guaranteeing copyright protection of such knowledge is a prerequisite to having it shared.

**The Challenges**

The traditional concept of intellectual property has, for a number of reasons, ceased to exist in the era of the Internet. Firstly, the digitisation of information has blurred the difference between literary works, artistic works, and computer programs. This is because works in digitised format
all have the same characteristics, which makes it very difficult to protect the copyright subsisting in them (Dreier 1995). By nature, the digitised works are easy to search, copy, distribute, transmit, manipulate or edit. Data is easy to capture, store and link. Moreover, if digitised works are stored or made available for access, or if they are transmitted without authorisation, it is difficult to establish copyright infringement because it is difficult to establish the identity of the person who transmitted an infringing copy of a work – whether it was the host, the access provider, or a remote user (WIPO-UNISA 2008).

Secondly, Internet technology inherently bases upon the concept of copying information and this is parallel to copyright protection. Web servers store a website as files containing strings of characters and numbers that may be sent or copied to any requesting web browser; as a result ‘limiting the copying of information is made impossible by the very construction of the Internet’ (Polanski 2007: 23). With the Internet, copying and distributing copyright protected material is done easily, speedily, cheaply and with quality, rendering protection and enforcement of copyright practically impossible. Internet seems very much a copyright-free environment, where the free use of works is a rule, rather than an exception. ‘Copyright offenders are practically untraceable if they use anonymisers, which allow their personal details to remain hidden, and if they encipher the transfer of protected materials via encryption’ (Polanski 2007: 23). The removal of rights-management information (see below) makes it even more difficult to prove copyright ownership. The issue of copyright infringement exacerbates these challenges.

**Infringement of Copyright**

Copyright infringement occurs when someone does, without the owner’s consent one of the acts requiring the owner’s authorization. Infringement may be direct or indirect. It is direct when the infringer does, or causes any other person to do, any of the acts specifically designated in law as the sole prerogative of the copyright owner, without having obtained the permission of the copyright owner (section 23(1) of the Copyright Act), and irrespective of whether or not the person intended to infringe the copyright. Indirect infringement occurs where one, without being the direct infringer, abets in the action, as where one provides the means to exploit without authorisation a copyrighted work (section 23(3)).

**Contributory Infringement**

Contributory infringement is a form of indirect infringement recognised, for instance, in US copyright law. In the United States of America, knowledge of infringement on the side of the abettor may result into liability in damages for contributory infringement. Accordingly, in *A&M Records Inc v Napster Inc* 239 F3d 1004 (2001) the Court held that traditionally, ‘one who, with knowledge of the infringing activity, induces, causes, or materially contributes to the infringing conduct of another, may be held liable as a “contributory” infringer’ (on 1019). The court agreed that contributory liability requires that the secondary infringer ‘know or have reason to know’ of direct infringement: the first is actual knowledge; the second is constructive knowledge. The court added that if a computer system operator learns of specific infringing material available on one’s system and fails to purge such material from the system, the operator knows of and contributes to direct infringement. ‘Conversely, absent any specific information which identifies infringing activity, a computer system operator cannot be liable for contributory infringement.
merely because the structure of the system allows for the exchange of copyrighted material’ (WIPO-UNISA 2008: 88-89). This contention is critical when we consider the liability of online service providers for the journals.

Service provider liability

Copyright law imposes liability for acts or omissions in a specific instance. The liability of an Online Service Provider (OSP) will therefore depend on the role it plays in a particular transaction. The technical role played by OSPs (also referred to as Internet service providers – ISPs), establishes potential liability, which may be principal or accessory in nature. Internet service providers specialize in linking organisations and individuals to the Internet and providing services to them by hosting websites. Hosting is simply ‘the storage and maintenance of the data making up the content of websites’ (WIPO-UNISA 2008: 173). In performing its services, if on the one hand, an OSP makes unauthorised reproductions of a protected work, it may be liable for direct infringement of copyright. However, if on the other hand, the OSP merely transmits or facilitates access to copyright-infringing material, the OSP may be liable for contributory infringement at common law (WIPO-UNISA 2008). This, though, should only happen where the OSP knew or had reason to believe that there was copyright infringement and did nothing about it. This is because, the host for a website only provides physical facilities for enabling a communication of information the user provides. According to the Diplomatic Conference that discussed Article 8 of the WCT, which stresses the exclusive right of the author to authorize any communication of the work to the public, ‘the mere provision of physical facilities for enabling or making a communication does not in itself amount to communication within the meaning of this Treaty or the Berne Convention’. It follows, therefore, that the host normally has no direct liability for copyright infringement.

The above position is supported by both the American and European models which exempt from liability access providers (mere conduits), in the absence of knowledge or awareness, and if they immediately disable access to the infringing content as soon as they become aware of the infringement. Thus in Religious Technology Centre v Netcom On-Line Communication Services Inc (907 F Supp 1361 (ND Cal 1995)) RTC sued Netcom an access provider for direct copyright infringement as it provided Internet access to a private bulletin board system upon which infringing works were placed. The court held that Netcom was not liable for copyright infringement, as ‘Netcom does not create or control the content of the information available to its subscribers; it merely provides access to the Internet, whose content is controlled by no single entity’ (on 1372). The OSPs for online journals are in the same situation.

An illustrative example of infringement

A typical situation of infringement may involve the following scenario. Natasha trades on her own website, which Angelina hosts. Natasha makes a play out of Mawazo’s journal article on ‘women lost in a cave’. Natasha sends a copy of the play to Baraa, a website owner trading in Madagascar. Natasha sends the material through Angelina, to Baraa’s service provider, Nadal. Baraa sells 21 of these copies to online customers based in Madagascar.
There are at least six acts of infringement here. By Natasha making a play out of Mawazo’s article, she makes an adaptation; and by storing the digital play on her computer memory, she makes a reproduction of the adaptation of the work. When Natasha uploads the file from her computer to her service provider, she makes a reproduction of the work and communicates it to the public. Furthermore, transferring the file from Angelina, Natasha’s service provider, to Nadal, Baraa’s service provider (from one computer-network user to another), entails the making of multiple copies. The downloading of the play from Nadal’s physical facilities for enabling or making a communication to Baraa entails the making a copy of the work (a reproduction). Finally, when Baraa sells and delivers copies of the play to the 21 online customers, she makes multiple copies of the work and this entails communication of the work to the public.

**Framing, Linking and Caching**

Framing, linking and caching are potential forms of online copyright infringement. Linking and framing are both methods of using third-party content available on the Internet to enhance a webpage. Linking is the practice of creating a link from one webpage to another by including a hypertext ‘link’. A hypertext link constitutes highlighted words or symbols that, when pointed to and clicked upon, lead the browser to a new web address. The creation of links is a basic element of the World Wide Webxii (www), the multiple transversing links of which create the conceptual ‘Web’ (WIPO-UNISA 2008).

Webpages incorporate hyperlinks, subsequently making it unnecessary for a surfer to type in the complete address of a website. Instead, one merely clicks on a highlighted string of text, or an image visible on the webpage that one currently views. When a cyber surfer clicks on the hyperlink, the hyperlink directly transfers the surfer to the home page of the designated website (Ebersxi 2003b).

In itself, the mere creation of a link does not infringe copyright. The coloured or underlined descriptive words appearing on a webpage that indicate a link are usually too few to constitute a work and the possibly detailed technical address or Uniform Resource Locatorxiii that may reside behind a link is also unlikely to be a “work”. Nevertheless, if a surfer clicks on the link, the browser will download a full copy of the material at the linked address, creating a copy in the RAM of the surfer’s computer, courtesy of the address supplied by the party that published the link (WIPO-UNISA 2008). We have already stated above that it is controversial as to whether a copy in the RAM infringes copyright or not; the position is no clearer when it comes to linking.

Customary practice permits linking; that notwithstanding, every author of a website remains liable for the content disseminated and if a link points to a resource which turns out to infringe third party rights or is in contravention of the law, only the author of that resource should be held liable. A website operator that includes a link to such a resource is normally not liable, because they cannot guarantee the content of a linked resource (Polanski 2007). The defence of knowledge that we applied to OSPs also applies in this case.

It is suggested that if the right to link to copyright material put on the Internet is governed by an implied licence, the copyright owner may specify the terms on which linking is permissible. There is no apparent reason why a copyright owner may not include linking conditions on one’s
homepage as purported contractual terms applying to the use of the work and, if suitably notified to users, thereby dictate precisely the terms on which linking may take place (WIPO-UNISA 2008). If this argument is correct, then we should acknowledge that common law imposes stringent limitations for a defence of implied licence.

“Deep linking,” where a webpage of company X is displayed within a frame or a portion of company Y’s webpage, is a particularly problematic area. Deep linking displays a linked resource within a frame of another website, leading to confusion about who has created a given site. It is possible, however, to program a website in such a manner as to ignore frames of a website and display the linked website in a separate window (Polanski 2007). Deep linking differs from hyper linking in that with hyper linking, the surfer is transferred to Y’s homepage, whereas with deep linking the surfer is transferred to one of the internal pages of Y’s website thus bypassing the homepage for one that is usually accessible from the homepage, or by clicking on a few headings or headlines. Deep links are often used for footnotes, bibliographic references, and cross-references (Ebersöhn 2003b).

In most cases, deep linking does not infringe copyright. When a user clicks on a deep link, either the screen display changes completely in that the webpage that contains the deep link is no longer displayed but a new webpage is instead displayed, or the user’s browser may create a new window in which the destination webpage is displayed with its correct address (Ebersöhn 2003b). That way, the surfer is aware that the information on the website is from the given address, which is the correct address of the owner of copyright. The “deep link” does not actually reproduce the copyright owner’s material; nevertheless, it may link to commercial sites making it an issue in contract law though not in copyright.

‘Framing’ occurs when one party creates a window incorporating the content of a third party’s website into their own webpage normally in order to improve the quality of the website. Frames help to navigate easily within a single content provider’s webpages. When a surfer clicks on a link, the link presents a new webpage as designed, but many pages also present the content of third-party webpages listed as links, “framed” with reminders of the originating page. Issues of passing off and misleading or deceptive conduct, as well as copyright infringement arise if frames are used to present third party material from commercial sites. The third party will usually have copyrights on their webpage but the surfer will not be aware that the framed web content belongs to a third party (Ebersöhn 2003a). Framing can therefore influence the advertising revenue of both the framing party and the framed-to party, and it is normally to the benefit of the framing party who gains commercial value through the popularity of the site. This is significant because the majority of business models encountered on the net rely on revenue that online marketing generates (Polanski 2007). Consequently, frames with commercial connections are unacceptable.

Framing also constitutes copyright infringement because it involves acts such as reproduction of copyrighted work, performance of the work in public, and adaptation of the work and courts of law have tended to accept this reasoning. Framing may as well amount to unlawful competition and be an action against good morals. The exception allowed, for example under South African Law, is where the framing of online content is for academic purposes. In such an instance, no liability arises because, although the lecturer or academic appropriates a third party’s online content, s/he does not act against good morals. S/he uses the framed content not to promote
personal performance, but merely to advance academic teaching (Ebersohn 2003a). This is in line with the fair use doctrine discussed above.

‘Caching’ is another potential form of copyright infringement on the Internet, which occurs where one stores copies of a work from an original copy for later use. A host may find that some resources are so much in demand that it is always requesting them for its clients. To reduce network traffic, computing time and costs, the host may store copies of those resources on its own server and provide them for its users. Caching can also happen automatically when the computer program creates temporary files of all resources a surfer has examined (Reed 2004). All this is akin to copying. The Electronic Communications and Transactions Act provides the legal position on caching. Thus:

a service provider that transmits data provided by a recipient of the service via an information system under its control is not liable for the automatic, intermediate and temporary storage of that data, where the purpose of storing such data is to make the onward transmission of the data more efficient to other recipients of the service upon their request, as long as the service provider –
- does not modify the data;
- complies with conditions on access to the data; etc (section 74(1))

Caching is always a potentially infringing act because it involves the making of copies. It is nonetheless essential for the efficient use of the Internet (Buys 2000). The implications for caching will therefore depend on its nature and form, and the extent of its use. Caching extends the controversy on copies in RAM but does not provide a solution either.

**Remedies**

Remedies for infringement of copyright consist of civil redress, as where infringers are obliged by court to cease the infringement and to undertake reparatory action by any appropriate means. Some laws also provide for penal remedies in the form of fines and/or imprisonment. However, the main remedies available to a copyright owner in respect of infringement under common law are an injunction to restrain the continuation of the infringement, and damages to compensate the copyright owner for any possible injury caused (Article 45(1) of the TRIPS Agreement; section 24(1) of the Copyright Act; WIPO 2004). The aim of the award of damages to a copyright owner is to restore the copyright owner to the *status quo ante*. This, though, does not guarantee that the copying will not continue perhaps in a more sophisticated way.

Remedies for the infringement of online materials are not as practical as they are in ordinary cases. First, it is difficult to find the infringer. Secondly, the usual order for the delivery of all infringing copies for destruction is practically impossible when copying is over the Internet. It is therefore important to think of other ways of protecting copyright such as rights management systems and technological protection measures.
Electronic Rights Management

Electronic Rights Management deals with copyright infringement on the Internet by providing rights management information. This information identifies the work, its author, and the owner of any right in the work. It may be information about the terms and conditions of use of the work, and any numbers or codes that represent such information. The information should be attached to a copy of the work or appear in connection with the communication of a work to the public (Article 12(2) of the WCT).

The unauthorized removal or alteration of any electronic rights management information amounts to actionable infringement. Similarly, ‘distributing, importing for distribution, broadcasting or communicating to the public, without authority, works or copies of works knowing that electronic rights management information has been removed or altered without authority’, also amount to actionable infringement (Article 12(2) of WCT). Electronic rights management is a commendable copyright protection method.

Technological Protection Measures

In light of the ease of exploiting copyright works, it is requisite to use technological protection measures to safeguard works in digital format. In this regard, various legislative measures prohibit acts and devices that circumvent these technological protection systems. Thus, Article 11 of the WCT requires countries to:

Provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under [the] Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law.

The DMCA re-echoes the same requirements, and prohibits the manufacture, importation, offer to the public, provision, or trafficking in any technology, product, service, device, or component, that is designed to circumvent a technological measure that effectively controls access to a protected work (chapter 12(2)).xviii African countries need to include such measures in their intellectual property protection laws.

Applicable Law

Copyright protection is territorial and according to Article 5(3) of the Berne Convention, the protection of domestic works is purely a matter of national law. Problems created by the global network are thus difficult to solve because of the territorial nature of current laws, which base on easily identifiable individuals and legal entities, tenets that do not apply to the Internet. Territorial regulation means that different laws might apply to the same situation, and this greatly contributes to legal uncertainty (Polanski 2007). For works in hard copy, the country of origin of the author of the book or, in case the country is not a member of the Union, if the book was published in one of the Union countries, that country shall be the place of institution of the infringement action. This becomes complicated in the case of online journals with various rights
holders. Some countries try to trace where the infringement originated. In any case, the country where the servers hosting the offending content are located, should be the first place whose law should apply before that of the place where the operator of the website with the offending content resides or does business (WIPO-UNISA 2008).

The WCT, the UNCITRAL Model laws, and the European Union directives are the most popular guides to the problem of applicability of law. The WCT is most widely accepted, yet it too does not provide any unified legal framework that expressly deals with important Internet-related developments.

[I]t does not deal with the problem of technology-related copying or ‘ephemeral copying’ as is the case with caching or proxy servers. It also [does] not address the status of a webpage as a subject of copyright, the use of metatags, the freedom of unconstrained linking to web resources and exceptions to this rule such as the problem of deep linking and framing, inlining, spidering, and so on. Other important aspects of Internet-related IP issues not covered in the Treaty include: the status of file-sharing systems, the relation to Open Source initiatives and the tremendous number of licensing schemes that surround the notion of freely available software, technological security innovations such as watermarking or the problem of admissibility of patenting software and e-commerce novel practices (Polanski 2007: 85).

Some analysts are optimistic about the capacity of conventional IPRs laws to deal with these new issues. Others, however, ‘believe that encryption (digital rights management technologies), rather than laws, provides the only effective way to protect intellectual property in “cyberspace”’ (Braga 1998: 551). Considering the complexity of amending international treaties to take care of the missing links, self-regulation may be the most practical solution for now.

Self-Regulation

The Internet so far is characterised by self-regulation, and in the absence of a comprehensive international cyber law, self-regulation will still be a major element of Internet transactions. Self-regulation consists of ‘regulating rights and obligations in agreements including codes of conduct and organisation by-laws’ (Polanski 2007: 86). Self-regulation could be limited to a contract, which is supposed to set out all matters among parties in question. Codes of conduct and by-laws are often included in this category. The idea of self-regulation is often associated with a conscious act of forming mutual relationships. Self-regulation by means of leaving everything for parties to set out in a contract, contrasts with a top-down approach of regulating Internet behaviour by means of harmonised statutes.

Self-regulation allows for an unconstrained growth of electronic commerce, free from imposed acts that outdate quicker than Internet technology. In addition, it offers more legal security, as parties may specify in their agreements mutual rights and obligations, and, in case of a disagreement, which law will govern their dispute or which court or arbitration tribunal will hear their dispute. Nonetheless, this approach does not create binding rights and obligations to third parties to such contracts and in effect, the approach does not contribute to the development of globally binding Internet and electronic commerce law (Polanski 2007). The top-down regulation...
that reflects a state’s regulation of the Internet has the major disadvantage of being territorial and not binding to non-citizens. Even if this is the preferred mode, states will have to agree among each other and probably enter a Treaty to regulate uniformly copyright aspects on the Internet. Given the speed at which technology is changing, such a Treaty would call for regular revisions and that is not easy. The solution may lie in the creation of binding contracts between the parties that want security of Internet transactions.

Conclusion

It is not enough for Africa to have its journals online and claim copyright protection. African governments must respect, promote and protect IPRs. That will encourage more authors and publishers to upload their information and knowledge for others to share, confident that others will only fairly benefit from their intellectual creations.

The first step towards reforming IPRs regimes would be to form a national consensus, which would bring together all stakeholders – research-based companies, universities, consumer groups, government agencies, industrial property offices, IPRs lawyers, etc. The consensus would establish the scope of IPRs, and attempt to evaluate the economic impact of reform. ‘Such an exercise would form the basis for the formulation of new laws and could identify adversely affected groups of the economy and design appropriate compensatory mechanisms’ (Braga 1998: 552) for the injured parties.

Protection of IPRs tremendously influences the creation and diffusion of knowledge within and between economies. However, the economic impact and net benefit of a particular IPRs regime depend on many other variables. Besides the legal standards of protection, business regulations, factor endowments, macroeconomic stability, the efficiency of the judicial system among others, all have a role to play. In any case, by building national consensus on the desirability of IPRs protection, and establishing efficient and credible institutions for administering and enforcing IPRs, Africa can enhance the benefits of IPRs reforms (Braga 1998).

For African countries, joining multilateral agreements such as TRIPS Agreement and WCT can help in advancing the reform in IPRs laws to cope with the challenges of the digital age. The need for balancing the interests of the various providers and users of copyrighted material should be paramount in these debates. Stakeholders should fend off adopting extreme positions that may affect the availability of content in cyberspace and the prospects for expansion of digital networks in the Africa (Braga 1998), while at the same time, creating a firm foundation for IPRs.

Concisely, copyright protection extends to online journals and to each of the articles in the journals, just like to most materials on the Internet, such as computer software and codes. It is important to consider that downloading material from the Internet may involve breach of copyright. Browsing is permissible, if only with a temporary and incidental copy made in the process of viewing the material. Hypertext links with other websites are normally permissible; deep linking is not permissible; and framing must not obscure third parties’ advertisements and other information. Furthermore, if hosting occurs with the knowledge of infringement, liability will follow. There are requirements for limitation of liability for linking, framing, and caching. It
is worthwhile to include a copyright notice on the website, and to obtain permission for loading/displaying third parties’ copyright works. Finally, it is important to implement electronic rights management systems and to use technological protection measures.

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i Internet Usage and Population Statistics for Africa are for June 30, 2008. They are available at [Internetworldstats.com](http://www.internetworldstats.com).

ii In order of number of users the top 10 users in Africa are Nigeria, Egypt, Morocco, South Africa, Algeria, Kenya, Uganda, Tunisia, Sudan and Zimbabwe.

iii “Translation” means the expression of a work in a language other than that of the original version. “Adaptation” is the modification of a work from one type of work to another, and it may involve the modification of a work to make it suitable for different conditions of exploitation (WIPO 2004). Adaptation also includes translation of a literary work (Article 1(a)(iii) of the Copyright Act).

iv South Africa provides for the life of the author plus 50 years from the end of the year the author dies (section 3(2)(a) of the Copyright Act) for literary and artistic works. For published works, it is 50 years from the end of the year when the edition is first published (section 3(2)(f)).

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vi A click wrap contract is a contract concluded on the Internet, where the terms of the contract are set out and offered by one party on a website and other party indicates acceptance of those terms by clicking on an accept button or icon and hence concluding the contract. A shrink-wrap contract is the same as a click wrap contract except for the fact that the accept icon is actually a shrinked box containing the actual product or service itself e.g. software. Accepting this contract, results in an immediate online consumption (WIPO-UNISA 2008).

vii Polanski (2007) uses the term ‘global’.

viii There is also a special top-level domain (.arpa) for the Internet infrastructure (Polanski 2007).

ix Relate this to the idea of “caching” developed below.

x The unauthorized copying amounts to piracy when it is for commercial purposes.

xi In some jurisdictions such as the US, just as OSPs are exempt from liability under given circumstances, education institutions can also have some exemptions under what is referred to as the “universities limitation” (section 512(e) of the DMCA).

xii World Wide Web is ‘a collection of information located in many Internet servers that can be accessed with a browser or by navigating via hyperlinks’ (WIPO-UNISA 2008:175).

xiii Sometimes referred to as “Universal Resource Locator” (URL), the term refers to ‘the string of characters which identifies the communication protocol used (http) and the IP address of the server site’ (WIPO-UNISA 2008:174).

xiv Polanski (2007) discourages the use of frames as a web design practice, and contends that the problem of deep linking is gradually disappearing from the Web.

xv In the US case of *Kelly et al v Arriba Soft Corp et al* 280 F 3d 934 (9th Cir 2002), the Ninth Circuit of Appeal found the Respondent’s inline linking and framing to constitute copyright infringement.

xvi There are generally four types of caching: mirror caching, web caching, proxy caching, and user caching all referring to one form or another of storing webpages or material.

xvii As used in Chapter 12 of the DMCA, ‘to “circumvent a technological measure” means to descramble a scrambled work, to decrypt an encrypted work, or to avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of the copyright owner; and’ ((3)(A)) ‘a technological measure “effectively controls access to a work” if the measure, in the ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work’ ((3)(B)).

xviii The United States, for example, applies the ‘root copy’ approach to copyright.

xix Metatags are ‘non-visible parts of a website that contain information such as site description or expiration time’ (Polanski 2007:374).

xx Encryption is ‘the coding of data for the purpose of security or privacy’ (WIPO-UNISA 2008:173).

xxi The self-regulatory character of the Internet has gone to the extent of some declaring an independence of cyberspace. Barlow expressed the following in an independence of cyberspace: ‘You have no moral right to rule us nor do you possess any methods of enforcement we have true reason to fear … We will create a civilization of the Mind in Cyberspace. May it be more humane and fair than the world your governments have made before’ (Barlow 1996 quoted in Polanski 2007: 85).
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