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Chapter Five

Ethical Implications of Intellectual Property in Africa

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1. Introduction

This chapter examines ethical issues emerging from 'proptertisation' of information or ideas. It also addresses the implications for introducing, applying and enforcing Intellectual Property (IP) laws in Africa, which prior to colonisation had no culture of IP protection. In so doing, conflicts arising from the collision between African socio-economic and cultural issues on one hand, and Western IP systems and values on the other, are examined. More than ever before, IP impacts on all aspects of human endeavours including access to information, medicine or healthcare, democracy, security, freedom of expression, intellectual freedom, privacy and a host of other human rights issues. As citizens, we encounter or interface with IP on a daily basis, consciously or unconsciously. While the focus of this chapter is on the African context, it should be noted that the ethical issues arising from the contradictory nature of the modern IP system go beyond Africa. Therefore, this chapter is an attempt to localise as well as globalise the ethical challenges emerging from IP. Indeed, some of the ethical issues arising from IP are the subject of intense reform processes of the international IP system at the World Intellectual Property Organization (WIPO) known as the Development Agenda (DA). WIPO is a specialised agency of the United Nations (UN) primarily responsible for the regulation of IP internationally.

Before we discuss the specific ethical issues arising from IP and IPRs, it is imperative to briefly discuss the theoretical and conceptual issues underlying IP as well as the different areas of IP law (also known as Intellectual Property Rights (IPRs)). The theoretical and conceptual issues are followed by a discussion of three areas of ethical concerns surrounding IP in Africa. These are the issues of Africans exploiting traditional African resources and expressive cultures; IP, Biopiracy and patenting of Africa's biodiversity and, finally, IP and access issues in Africa.

1.1. IP Conceptual and theoretical issues

Today, more than any other time in the history of mankind, information is part of every human enterprise, so much so that society is characterised as an information or knowledge society. We also encounter labels such as networked society. What is apparent today in comparison to past societies is the increasing use of technology and reliance on information. Generally, there is emphasis on the centrality of information and/or prevalence of information goods and services in economic and social spheres. We also find emphasis on information workers or knowledge workers in the information economy. As such, there is significant importance attached to what the WIPO refers to as the 'creations of the human mind' also known as Intellectual Property (IP).

Intellectual property is intangible property resulting from creative minds and/or innovation. However, the notion of creations of the mind being characterised as property is a highly controversial proposition as variously noted in this chapter. This is so because unlike physical property, IP entails a wide range of information-related goods and services or 'kinds of property'.

Likewise, the laws and regulations designed to create, regulate and/or protect this kind of property are numerous and varied. Collectively, the laws are referred to as the Intellectual Property Rights (IPRs).

Under no circumstances can a single chapter exhaustively discuss a broad and far-reaching subject matter like IP, moreover examining the ethical implications in the Africa context. Nonetheless I attempt to briefly but informatively introduce the main areas of IP before examining their ethical implications for Africa. The main areas of IP discussed in the chapter are patents, copyright and neighbouring rights and trademarks and trade dress.

2. Areas of IP¹

2.1. Patents

Patents are legal instruments that grant the owner of 'new' innovative, novel, un/non-obvious and commercially viable ideas the right to exploit the ideas without fear of exploitation by others. The owner is granted exclusive rights in exchange for disclosure of the ideas. It is envisaged that such disclosure allows others to develop the ideas further into new 'patentable' ideas and/or can be licensed by the owner to exploit an existing patent. Normally the patent is granted for 20 years, after which it falls into the 'public domain'. Public domain means no one has control or ownership over those ideas and, as such, they can be exploited commercially, or otherwise, by anybody with the means to do so. This is a fairly simplistic description of an otherwise complex and wide area. It is important to note, though, that the patent system is possibly one of the oldest if not the oldest form of IP and IPR. Related to patent are utility models and industrial designs. Often these do not necessarily meet the 'novelty' standards required of patentable ideas and as such tend to be protected for shorter periods in comparison to patents. These usually represent ideas under development that will eventually lead to patenting.

A patent must be applied for through a national patent office such as the Kenyan Industrial Property Institute (KIPI) or the Department of Trade and Industry Companies and Intellectual Property Commission (CIPC) which regulates patents in South Africa. Once approved, a patent is protected and enforceable in the jurisdictions of the patent office. For instance, a patent filed and approved by the KIPI or CIPC will apply to Kenya and South Africa respectively. Beyond that, there are regional organisations like the African Regional Intellectual Property Organization (ARIPO) which registers patents from a number of English-speaking African countries². The equivalent to ARIPO for francophone Africa is Organisation Africaine de la Propriété Intellectuelle (OAPI)³. WIPO also administers the Patent Cooperation Treaty (PCT). PCT is a system for filing international patents and protects the patent in over 125 countries that are signatories to the PCT. However, much as the filing is done through WIPO and the PCT, the actual granting of the patent is by a national or regional patent office where the filer is located.

Briefly that is what patents are about, but I revisit the topic in greater detail especially in relation to the ethical challenges of patenting software and biotechnology products. These are probably the most controversial areas of patent today in Africa and elsewhere.

2.2. Copyright and neighbouring rights

Copyright and neighbouring rights are related to patents in the sense that protection is granted for

¹ For a brief overview of IP, see <http://www.wipo.int/about-ip/en/>.

² See ARIPO website for details about the organisation, its mandate and scope of work: <http://www.aripo.org/>.

³ See OAPI website: www.oapi.int.

creativity but for reasons and mechanisms slightly different from patents. Copyright is different because it protects ideas 'expressed' in some 'physical' form unlike patent rights which protect ideas themselves.

Copyright serves a dual purpose. First, it serves as a reward for creativity (reward creative individuals) providing an incentive for creativity as a return on intellectual capital. Second, it facilitates access and use of information and artistic resources resulting from creative endeavours. As such, it facilitates the sharing of intellectual capital so that it can be built upon by others.

Copyright, therefore, protects works of 'authorship' which must be expressed in some form such as a book, journal article, web posting, software code, etc. Copyright grants the 'author' a set of exclusive rights on activities like:

- (i) Production and reproduction
- (ii) Distribution/dissemination
- (iii) Public performance/display
- (iv) Adaptation
- (v) Format conversion
- (vi) Translation
- (vii) Public lending rights (right to authorise/prohibit the public lending of published copyrighted work)

Neighbouring rights refer to rights derived from adding value to works originally protected by copyright. Such rights include the right to do a public performance which might be based on a work originally copyrighted and owned by another party other than one involved in the public performances. Neighbouring rights are not necessarily part of the copyright regime in all countries or jurisdictions. Neither are they always appended to the copyright law.

Copyright is potentially far more complex than other areas of IP because it covers a wide range of areas including but not limited to:

- books, pamphlets and other writings
- lectures, addresses, sermons
- dramatic or dramatico-musical works
- choreographic works and entertainments
- musical compositions with or without words
- cinematographic works and cinematography
- works of drawing, painting, architecture, sculpture, engraving and lithography
- photographic works
- works of applied art, illustrations, maps, plans, sketches and three-dimensional works relative to geography, topography, architecture or science
- translations, adaptations, arrangements of music and other alterations of a literary or artistic work, protected as original works without prejudice to the copyright in the original work
- collections of literary or artistic works such as encyclopaedias and anthologies based on the selection and arrangement of their contents

Technically, this means copyright regulates industries as diverse as music, software, publishing, architecture, art, among others. That necessarily makes it difficult to find agreement where there are disagreements and there are many, as we will find later in the chapter.

The ideas expressed in a copyrighted or protected work can be copied and/or used without repercussions as long as certain conditions are met. For instance, acknowledging the original author evident in the academic traditions of citation and referencing or limiting how much is copied as the case is with copying or reproduction using photocopier for academic purposes. The latter is often permitted without recourse or permission from the copyright owner, the author or rights holder by the 'fairness' provisions popularly known as fair use. Fair use is a doctrine in the US Copyright law (§

107) but slowly making its way into copyright laws of some African countries, most notably Uganda's Copyright and Neighbouring Rights Act, No.19/2006.

Unlike patents, copyright is generally automatically granted to works of authorship. Even as I wrote this chapter, copyright was automatically granted to me regardless of whether what I have to say in the chapter is novel or creative. As long as I am not copying someone else's writings or works, the content in the chapter is automatically protected. The creativity in the chapter probably comes about with the arrangements of these ideas (which are not new at all), what I have to say and in which context. The question of novelty of these ideas is for the patent area, not copyright law. Copyright is generally protected for about 50 years upon or after the death of the author but in many jurisdictions that can extend to 70 years or even 100 years in other countries. Copyright is administered by copyright offices like Burkina Faso's Burkinabé Copyright Office (BBDA). While copyright is granted automatically, 'authors' are encouraged to register their works with the copyright offices or regulators. Registration can be useful in case of future litigation.

2.3. Trademarks and trade dress

Trademarks are words, signs or symbols associated with and used to identify a product, company and/or goods and services. Inherent in the words, signs or symbols is the quality of the manufacturer or reputation of the originating firm, company or organisation which ought to be protected to avoid duplication of the goods by others as if they are the same goods made by the legitimate entity. Trademarks partly address problems like those caused by counterfeit goods, the majority of which are copycats that imitate popular and widely available brands. Related to trademarks are trade dresses that relate to the visual appearance of a product which in some circumstances can uniquely identify that product. The 'dress' or dressing in this case is a form of intellectual property since it is intimately associated with a product. Another area of IP related to trademark and of significant importance and relevance to Africa is that of geographical indications (GIs). GIs are a form of intellectual property that identifies or associates a product with a particular region, place or part of the world or country. South African wine is uniquely identified as such and by so doing associated with the quality of wine from South Africa. At times even identifying a wine as South African is misleading since there are many wine-producing parts of South Africa. In that case, wine from Cape Town will be uniquely identified as such.

There are many areas of IP that we cannot possibly cover all in a single chapter. Many more emerge every few years as technological changes and innovation warrant the creation of new forms of protection, not mentioning the quest for new forms of investments. Mentioning technology and the contemporary focus on the so-called information revolution as responsible for the interest in intellectual property is misleading because IP has a fairly long history. As noted later, the history of contemporary IP systems is deeply rooted in the European industrial revolution and enlightenment philosophy.

3. 'Author' or authorship and originality

Having looked at some of the main areas of IP, it is worth examining some of the building blocks of the IP systems, their underlying assumptions and resultant contradictions. These further confirm the fact that the ethical problems raised by IP are not uniquely African, although they are probably more pronounced in non-Western settings like Africa.

The contradictory nature of IP in Africa and elsewhere stems from the assignment of exclusive IP ownership rights to the 'author' who, presumably, makes 'original' contributions. Authorship and originality both present challenges to the collectivist or communal ethos and ownership that existed in traditional African societies (Kuruk, 2002; Amegatcher, 2002). Boyle (1997) argues that given the problem of information, which is the basis for all forms of IP, the modern IP system had to devise

principles around which the system could be built. Without these principles, the underlying contradictions threatened to undermine the very notion of information as property. The two concepts of originality and author (or authorship) were only devised and have not always been part (and parcel) of the intellectual property system.

Originality in the context of IP assumes or communicates newness or something unprecedented. Indeed an original idea is one that has not existed before. It is a romantic notion because normally it is difficult to create something entirely new. Often what is considered new draws from existing ideas. Originality in this case creates the impression of newness and not necessarily ideas that are appropriated from an existing knowledge base, the common, shared or public resources. Boyle (1997) and other critics of the modern IP system find that troubling.

The author or authorship is another important linchpin or principle on which the modern IP system rests. The author is perceived and portrayed as that person or entity that engages in creative activities, the result of which is new and original ideas. The newness and originality are the basis for assigning that person property in the ideas or expressions of the ideas. The concept of author has been studied possibly more than any other aspect of IP, largely due to its centrality to the system as a whole. Hesse (2002) documents the historical account of the notion of authorship. In essence, we can arrive at one conclusion: that the principles under which the modern property system is based, especially the author or authorship, have evolved over time and have not always seemed settled as they are presented today. For instance, the "Ancient Greeks did not think of knowledge as something that could be owned or sold" (Hesse, 2002:26). Likewise the Chinese, especially their great philosopher Confucius, perceived the author and authorship as involved or involving transmission rather than creation, more so original creation.

Given the above, what is the issue or what is the problem Boyle and others see with the current IP system? It is not that 'authors' or authorship ought to be discarded from IP lexicon or vocabulary. Certainly it is not that it is unnecessary to think of authors as engaged in creative processes and, therefore, making meaningful contribution to innovation and creativity. Instead, it is the notion that some of these concepts and principles are presented by some as settled, theoretically and philosophically, and therefore infallible. Yet we know that the nature of information as the basis for property is contradictory or even problematic. Indeed Boyle (1997) argues that often copyright is considered and presented as a settled or stable aspect of law without need for constant reviews or reforms as other areas of law. That is erroneous and disingenuous. Boyle argues that, in fact, IPR is only an attempt to resolve the contradictions and tensions underlying information in the market place and information itself as a basis for creating information properties. There is a need to examine important questions like: how can IP which is "right-oriented and utilitarian" (Boyle, 1997:51) be the sole basis for resolving the role of information in the market place and/or information goods and services in the market place? How can information-based property be property when others cannot be excluded from it? In fact, does it even make sense to talk about an author or authorship or originality as if they are involved or involve new ideas or forms resulting from transformative processes? Does property in information diminish or threaten to diminish the common pool (public domain) since the 'author' must draw from common resources (language, ideas, culture, humour, genre) to claim or be afforded monopoly or exclusive rights? That is, will copyright (IPR in general) lead to a general depletion of new ideas or new information? How can the law (IP law) avoid or overcome the contradictions and complexities presented by information? These questions point to legal, ethical as well as theoretical problems surrounding the modern IP system. What is most important is that they transcend IP in most of Africa. In Africa, which historically or traditionally had no IP system in the 'Western' sense based on the 'author' or 'originality' but collective or communal ownership and creative systems, such questions and contradictions are more pronounced than where the IP system has been implemented and evolved for several hundred years.

4. IP in Africa and ethical issues that emerge

In the African context, contemporary IP systems are closely associated with European colonial adventures on the continent. As part of the colonial set-up, traditional African societies and systems of property ownership, which were predominantly communal or shared, were reorganised to fit the 'European' conception of intellectual property ownership that existed at the time. The European approach to property ownership was primarily private individual and public ownership (Beyaraza, 2004:139). The post-colonial legal systems around property, physical or otherwise, rendered pre-colonial systems of ownership, or lack thereof, repugnant. As such, the notion of creating private property out of intangible forms or resources that were previously shared, proved problematic and continues to date. It should be noted that this controversy was not only necessarily unique in Africa but also in Europe where the IP system originated. Therefore, given that the idea of creating property is deeply rooted in Western European civilisation and Western societies and not necessarily understood or accepted in different African societies, raised serious social, legal and ethical concerns arising from the application of IP regime in sociocultural and economic context inconsistent with Western settings where IP originated and had undergone years of changes.

Given these historical contradictions, it comes as no surprise that in the African context the subject of IP raises more ethical questions than legal or policy concerns. According to Braman (2009:246), "ethics leads to policy, which leads to law, which leads to ethics, and so on". Therefore as we examine the legal field of IP, in most of the African context we cannot but often fall back to ethical issues underpinning IP law and the means or manner in which IPRs or laws were introduced and applied in the African context. The rest of this chapter is dedicated to examining the different ethical issues arising from the use or application of IPRs in Africa. Specific areas of IP law and African resources are used to illustrate the ethical issues that emerge, starting with copyright and expressive cultures, followed by patent, biopiracy and access to medicine and, finally, copyright and access to knowledge. By no means do these cover all areas of IP law and the emergent ethical concerns. They are selected to provide snapshots of ethical issues emerging from the application of IP law in Africa.

4.1. Africans exploiting traditional African resources and expressive cultures⁴

In Africa, the above theoretical and philosophical contradictions are evident in the tension that exists between traditional collectivist or communal ethos and the post-colonial state laws that sustained the colonial legal regime including that relating to IP. In many places, customary legal systems and/or values persist today, often in direct conflict with Western common or civil law systems. The problem is that many creative individuals in Africa with roots in traditional societies and drawing from traditional resources, have to work and exist in legal and economic environments largely based on Western legal systems. For instance, Africa's traditional musicians have to acknowledge the collective values dictated by the customary laws, practices and values of their communities. They also live and work in socioeconomic environments increasingly rooted in values that are different from or at odds with those of their traditional communities (Kawooya, 2010). The nature and consequences of subjecting traditional resources to Western IP systems is one of the serious legal as well as ethical problems facing the introduction and application of IP and IPRs in Africa.

Customs and customary practices form the core of many traditional African societies. As such, they are at the centre of issues around ownership of expressive forms like music, dances, and

⁴ This section draws extensively from the author's doctoral research dissertation completed in 2010, titled "Traditional Musician-Centered Perspectives on Ownership of Creative Expressions". Available at http://trace.tennessee.edu/utk_graddiss/711.

folkloric resources in general. Historically, customs in Africa were recognised sources of law and guiding principles for the harmonious existence of communities. Today, customary practices remain integral parts of traditional societies in Africa and/or part of the 'mainstream' national legal infrastructure. Notwithstanding challenges associated with customary laws and practice, customary laws and practices provide the framework for defining and assigning ownership of 'intellectual property' in expressive cultures (Kuruk, 2002; WIPO IGC, 2001). Therefore, understanding of customary laws, values and practices is a prerequisite to examining ownership of traditional expressive forms in contemporary settings. On the other hand, examination of customary practices is incomplete without accounting for ways in which expressive forms, including traditional music, are conduits for teaching customs to the young and old in formal and informal settings of traditional communities (Amoaku, 1982; Euba, 1988 and Horton, 1980).

Kuruk (2002) argued that Africa's customary laws and practices do not necessarily address ownership but rights, obligations, responsibilities, duties or privileges assigned to individuals or groups like clans in the community. Often these rights were, and in some cases still are, assigned to individuals in trust for the community at large. The individual in the customary context is not to be confused with the individual or 'author' we noted in the modern IP system. Kuruk (2002:7) cites numerous cases of rights segmentation including "the recitation of oriki, a praise singing poetry among the Yoruba in Nigeria," that was "restricted to certain families". Likewise, "among the Lozi in Zimbabwe, each traditional leader has his own praise songs containing both historical lore and proverbial wisdom that are recited on important occasions by a select group of bandsmen" (2002:7). He observes that "in some communities, precise rules govern who can make, or play certain musical instruments, at what time and for which reasons. Thus, the great national drums of the Lozi which are beaten only for war, or in national emergencies, are kept under the watchful eyes of a special council of elders" (2002:7-8). Assignment of special rights, duties and responsibilities as the ones cited above is an honour to the groups and individuals in question. However, the rights do not constitute private ownership but custodianship on behalf of the larger community. Kuruk draws examples of such special privileges from Uganda where "each Baganda king in Uganda has a select group of drummers who play special drums to ensure the permanency of his office. Among the Bahima of Uganda, only women keep harps while the Banyankole authorize only women to make harps which they use at home. Among the Baganda, fifes are owned by and played mainly by herd boys" (2002:7-8). The question necessarily is how do customary laws and practices bind individuals and groups to these collective values, moreover in contemporary times when such laws and practices must co-exist with Western IP systems?

Kuruk's account of customary laws and practices in Africa throws light on the customary forces that bind individual and community members on the basis of kinship. Kinship is often realised through family lineage and/or clan membership where family members are accountable to family heads who in turn account to clan leaders. The leaders are themselves accountable to a higher leader, the tribal leader or king/chief. Kuruk further notes that sanctions for going against established rules are severe, ranging from "censure, to fines, to ostracism or even expulsion from the group" (2002:9). The severity of the sanctions deterred members from engaging in unacceptable conduct. Oftentimes offenders would bring shame or punishment to their families, lineage or clans, hence the notion of collective responsibilities. Due to collective responsibility, everybody is accountable for the actions of another so that "all clansmen are responsible for the actions of other clansmen and are required to protect them" (Kuruk, 2002:10).

In context of ownership of expressive forms, deviance from collective values such as personal claim to music was unheard of. Any attempt to make such personal claims often attracted punishment for the individual, his/her family and/or the group to which the musician belonged. Kuruk observes that collective responsibility applied to sanctions but also effectively pre-empted the "unnecessary

wrongdoing because of the inherent belief that any offense committed by clansmen would be avenged against any member of the clan" (2002:10). By implication, traditional musicians as entertainers in traditional communities would protect each other from offending collective rules and practices. Today these values still bind musicians who stake claim to traditional communities. Unlike in the past, however, enforcement of sanctions varies from community to community.

Kuruk further notes that customary laws tend to be flexible in the light of socioeconomic and political changes. He notes that "it [customary law] has adjusted to such influences as the introduction of European and other foreign legal systems in Africa, urbanization and the growth of a money economy" (Kuruk, 2002:6-7). Flexibility of the customary systems is the more important today for the socioeconomic welfare of traditional creative individuals and, by implication, the very survival of traditional expressive cultures for the groups in question. Dynamism in a customary legal system is best illustrated "in customary rules about land ownership where it is now possible to own land individually unlike earlier times where land belonged to the family as a group and no individual could own a piece of land absolutely or sell it" (Kuruk, 2002:7). Unlike physical property, however, application of customary laws to expressive forms or 'intellectual property' presents unique challenges due to the intangible nature of expressive forms but also the imprecise nature of the customary legal system.

Kuruk (2002) examines customary systems in Africa and the rights afforded to ethnic communities and their cultural expressions under customary laws and practices. He looks at the "nature of communal rights in folklore [including traditional music], why they are binding and how they are enforced traditionally" (2002:5). He observes that "understanding the strengths and weaknesses of folklore rights at the community level is essential to an appreciation of how the rights would be treated [...] under the statutory regimes which purport to enforce such rights in the same manner they are recognized at the community level" (2002:5). Kuruk's analysis of customary systems and rights is based on the community as a whole. He offers no remedies to creative individuals in traditional societies caught up in environments of multifaceted approaches to ownership of creative expressions. He narrowly focuses on rights afforded to communities under customary laws. However, his work relates to the ethical issues raised by the conflict between traditional and Western IP systems because he attempts to examine ways in which customary laws can be aligned with mainstream IP regimes that attempt to address questions of traditional cultural expressions based on traditional values and practices.

Amegatcher (2002) demonstrates the mismatch between customary practices and values on the one hand, and copyright laws on the other, by highlighting the contradictions arising from subjecting traditional cultural resources to copyright laws in Africa. Traditional resources remain deeply rooted in customary practices. Amegatcher (2002:37) asserts that it was the "nature of communal property to be enjoyed by any person belonging to the particular [traditional] community". Besides oral tradition, most traditional societies had no concept of 'property' in intellectual work. For instance, Amegatcher (2002:38) points out that "Ghanaians did not see the creation of literary, musical or artistic work as generating any property rights [to be owned] [...] because their own notions of property were very basic and did not include intangible things like stock and shares". Amegatcher is in agreement with Kuruk that customary practices did not prescribe ownership but appropriate obligations or duties to individuals or groups in a given ethnic community. Duties, obligations and people's ways of life were regulated by practices under uncodified customary laws (Amegatcher, 2002). In the context of expressive cultures and folklore in general, the duties, obligations and rights for the individuals, or the group, were the closest traditional African societies came to property rights for intellectual works.

Amegatcher's choice of case study, Ghanaian copyright law, illustrates the precarious environments in which traditional musicians work, caused by contradictions in the framing of ownership in the traditional context. Ghana transferred protection of traditional expressive forms from

customary practices and laws to copyright. Ghana is part of a trend in Africa, and elsewhere in the non-Western world, where Western-oriented copyright laws are the preferred means for protecting traditional music and folkloric resources. Ghana took that step through the Ghanaian Copyright Act of 1985 whose Article 5 stipulates the following:

1. Works of Ghanaian folklore are hereby protected by Copyright.
2. The rights of authors under this Law in such folklore are hereby vested in the Republic of Ghana as if the Republic were the original creator of the works (Amegatcher, 2002:36).

The same law established the Ghanaian Folklore Board to:

- (i) administer, monitor and register works of Ghanaian folklore on behalf of the Republic
- (ii) administer, monitor and register works of Ghanaian folklore on behalf of the Republic
- (iii) preserve and monitor the use of folklore works in Ghana
- (iv) provide members of the public with information and advice on matters relating to folklore
- (v) promote activities which will increase public awareness on the activities of the Board, and
- (vi) promote activities for the dissemination of folklore works at home and abroad (Amegatcher, 2002:36).

Whereas the Ghanaian move was politically expedient, Amegatcher contends that the copyright law effectively shifted ownership and control of traditional musical resources from their customary context to the state. Traditional communities tend to be suspicious of state institutions assuming jurisdictions over traditional expressive cultures. The state is primarily interested in economic exploitation by licensing traditional resources to foreign musicians and corporate interests in the music industry. No wonder Ghana's shift was prompted by an offer from Paul Simon for a popular Ghanaian tune "YaaAmponsah" (Amegatcher, 2002).

A response from Ghanaian musicians disapproving of government actions was promptly issued through their representative organisation, the Committee on Misgivings of Music Industry Practitioners (CMMIP):

It is unfair that Ghanaians are not exempted from paying for the use of Ghanaian folklore which is a heritage collectively bequeathed to all Ghanaians by their forebears. The Committee is therefore vehemently opposed to Ghanaians paying any fees or getting permission to use Ghanaian folklore as stipulated under this section. What the proposed Bill is saying, in effect, is that a Ghanaian weaver must seek permission and pay to weave kente or a writer to use KwekuAnanse stories in screen plays (Amegatcher, 2002:36).

As the first African country in Sub-Saharan Africa to attain independence from European colonialists, Ghana exploited ethnic cultural resources in the struggle for independence. The state in Ghana also used it to create a sense of nationalism in post-independence Ghana. However, the current policy of cultural nationalism in Ghana best illustrates contested authority over cultural resources in the contemporary African settings. Contestations serve to complicate ownership and control of traditional cultural expressions.

Kuruk (2002:21) agrees with the CMMIP in observing that "it is palpably wrong to use intellectual property criteria to invalidate customary law rules because folklore is so inconsistent with intellectual property law that prescribing an incompatibility test by reference to intellectual property statutes means the virtual abolition of rights in folklore". Differences between customary practices and laws, on the one hand, and intellectual property laws on the other, subject traditional expressions and creative individuals to multiple sources of law and authority on ownership of traditional music. On the one hand, as members of ethnic communities contributing to their cultures, musicians remain bound by customary laws and practices. On the other hand, intellectual property statutes fail to accommodate the rights to their works on grounds that they draw from traditional resources. Where traditional musicians are covered by national laws, such laws are inconsistent with customary

practices. Countries that attempted to integrate customary laws into the mainstream legal systems have since abandoned the practice, besides constitutional mention of customary practices. Other countries have never found it necessary to explore those options (Kuruk, 2002). Instead, many, including Senegal, Tanzania, Ghana, Nigeria and Uganda, have brought traditional resources in the ambit of Western-based intellectual property legal systems as folklore (Amegatcher, 2002; Kuruk, 2002 and Nwauche, 2005). On the broader issue of traditional or indigenous knowledge, South Africa recently passed the Protection of Traditional Knowledge Act which effectively amended existing IP laws to include protection for traditional or indigenous knowledge and resources. The Act has been criticised for nationalisation of traditional resources similar to the Ghanaian Board. It has also been criticised for working within existing IP laws which are imperfectly fit for traditional knowledge and resources.⁵ The collective ethos of traditional communities in Africa means that a traditional musician claiming individual ownership of a traditional piece of music goes against the collective customs and cultural values of the community. With ownership of traditional music in the balance, musicians may not easily live off their music for they cannot claim new forms they create as personal property. Some argue that individual ownership of works of an intellectual nature, as opposed to the collective approach, creates monopolies threatening its continued production (Gibson, 2004). The oral nature of most African societies meant that over time, the origins or contributors to popular folkloric materials like folksongs were lost from the community's collective memory. Hence, the widely held view that expressive forms in traditional African settings were never ascribed to an individual but to cultural or ethnic communities in general (Amegatcher, 2002; Githaiga, 1998).

The above environment raises a few ethico-legal questions. First, does the subjecting of traditional resources previously or currently held collectively by traditional societies undermine the continued production and/or protection of such resources, especially when exploited by creative individuals with roots in the same societies? As such, is the modern IP system in Africa pitting Africans against fellow Africans depending on which side of the creative processes one belongs? Does that explain emerging disagreements amongst Africans on the nature and scope of IP protection in Africa, with some agitating for more protection while others dismiss the system as inherently flawed and foreign to Africa's collectivist ethos? These are important legal and ethical questions likely to shape the nature of IP discourse in Africa for years.

4.2. IP, Biopiracy and patenting of Africa's biodiversity

While the ethical issues arising from the intersection of copyright and Africa's expressive culture mentioned in the preceding section predominantly focus on Africans such as contemporary traditional musicians as actors in the IP system, especially traditional societies attempt to protect their resources in an IP environment based on both Western IPRs and the customary laws and practices. The area of biopiracy and biodiversity largely focuses on exploitation of African biodiversity and resources by foreign or outside entities or individuals, often in ways contrary to how traditional African societies related to and exploited the same resources. The intersection between IP and biopiracy and biodiversity is the subject of intense international negotiations and instruments, given the gravity of the underlying problems.

Biopiracy refers to the appropriation of natural biological materials for commercial purposes without any or reasonable compensation of the people or community in question. Often the appropriation is carried out by an entity other than the 'indigenous' people or community that has relied on the same materials for years. Biopiracy is usually preceded by bioprospecting, which involves systematic discovery of biological materials with a potential for commercialisation, say for medicinal purposes. Normally 'bioprospectors' rely heavily on the indigenous people or communities

⁵ For an overview and critic of the Act, see: http://siulaw.typepad.com/international_ip_policy/2011/12/south-africa-passes-the-intellectual-property-laws-amendment-bill-to-protect-traditional-knowledge-b.html#_edn9.

that have used the biological materials for years for different purposes.

Taken together, bioprospecting and biopiracy disadvantage the affected community which rarely or never benefits from their indigenous knowledge or biological resources or both. Since much of Africa is tropical, the continent enjoys a high degree of biodiversity, that is, the range and diversity of life forms in a given locale. As such, Africa is among the few places where the potential for bioprospecting and biopiracy is very high. The indigenous people's knowledge of Africa's biodiversity and its various functions ranging from food to medicine, can be considered some kind of collective or communal 'intellectual property'. Such knowledge was customarily shared, often freely, and therefore understood to be in the public domain in contexts of particular indigenous communities. Applying the same reasoning in context of Western IP systems opens it up to appropriation and misappropriation by foreigners protected by the individualistic Western IP systems. But as previously noted in the Ghanaian and South African attempts to protect indigenous knowledge and resources from foreign prospectors and 'pirates' by nationalising such resources, such a move only strips indigenous communities of the rights they previously enjoyed. That necessarily presents serious ethical and legal problems.

To further illustrate the problem of biopiracy, we use biotechnology as a specific area of science and technology (S&T) to better understand how IP is regulating as well as extending the frontiers of science, as well as the ways in which science and technology is extending the scope and reach of IP, at times raising serious ethical questions. We also note that within the area of biotechnology, there is the potential to abuse the IP system, for instance through seeking and granting patents that end up stifling further research and innovation that would otherwise benefit society.

Biotechnology is a relatively young science in Africa outside South Africa but certainly growing rapidly. While bioprospecting and biopiracy largely focused on plants or organisms and specifically active compounds that might be extracted for various purposes, biotechnology is rendering some of these compounds unnecessary since the focus is on genetic engineering and manipulation. Put simply, biotechnology is an area of science or applied biology focusing on the manipulation of living organisms for purposes of creating new (and possibly, better) organisms. The field is rather diverse because biotechnologists operate at many levels from the physical, as the case is in plant grafting, to the molecular level in the form of manipulation of genetic materials of living organisms. Today biotechnology is often associated with the latter, also known as modern biotechnology. However, in actual sense old practices of brewing beer through fermentation, selecting the best seeds for planting or even animal breeding by crossing one animal breed, pure or otherwise, with another to come up with the better one, are all forms of biotechnology also known as traditional biotechnology. Modern technology is known better for a number of reasons, notably the sense that the process and products of manipulation of genetic materials at the molecular level carried out in research laboratories come off as too artificial in comparison with the traditional biotech which happens in 'natural' settings. Yet, despite all the controversies surrounding biotechnology research and products, the field has made tremendous progress and contributions to many fields including medicine, agriculture and food security, engineering, etc. At the same time there are many unknowns that cause concern for potential impact of products of biotechnology research. But the concerns over biotechnology are not only about the unknowns, uncertainty has also been about attempts to clone human beings. Probably the most prominent biotech initiative involving humans was the Human Genome Project, an initiative of the United States Government and several partners worldwide. The primary objective of this project was to map the human DNA, an effort that was expected to have significant biomedical and health implications.

The evolution and development of traditional biotech and certainly modern biotechnology is linked to the evolution of specific areas of intellectual property, notably patent and plant variety laws.

Of course, at the core of products of biotechnology products is essentially information. Once a researcher has successfully improved on a certain cash crop (a crop grown primarily for profit) and the specific genetic make-up of the new plant becomes available or even the crop itself becomes available, inevitably others interested in such a crop will likely simply help themselves to it. But unlike music, art, software code or even literary products, the sources or origins for genetically modified products is usually nature. Some argue that it has always been nature, regardless of the varieties humans create, the original organism must have existed naturally. How then can one claim an intellectual product in the resultant organism? Are these more of 'products-of-nature' than human creativity, innovation and ingenuity? On the other hand, considering that biotechnology has made tremendous contributions to various areas of scientific inquiry, does the absence of specific laws protecting the results of such research threaten further research in this area?

The discourse around biotech products has mostly played out in the IP area of patents. As previously mentioned, patentability of innovative products must meet three standards or tests: 1) novelty; 2) non-obviousness and 3) utility. There are those that argue that, for a variety of reasons, biotech products hardly meet all or some of the three tests. First, as noted above, many are products of nature or at least originate from naturally occurring organisms. Where is the novelty in genetic engineering of naturally occurring organisms? How distinguishable are they from naturally occurring organisms from which they are developed? Put differently, what is the non-obviousness and the utility of bio-products? Of course biotech products are many and diverse. Different products will therefore meet different patentability standards. However, these standards, especially the utility standard, will serve an important regulatory function in determining what is patentable and what is not. Apparently the debate on the patentability of biotech products is not limited to the ethics of patenting living organisms. As already mentioned, biotechnology has made tremendous contributions to different areas of science. As such, the debate on patentability is also one about the privatisation of what is or has always been construed as public science or naturally occurring traditional resources, which throughout history contributed enormously to the public domain. Incidentally, of all areas of science and technology, the early advancements in biotechnology were rooted in public research institutions especially universities; to a large extent much of the research today remains anchored or situated in the same institutions like the Biotechnology Regional Innovation Centres (BRICS) at the University of Cape Town in South Africa⁶. While private entities and businesses play a crucial role in bringing biotech products on the markets, public institutions like universities and publically funded research remain important vehicles for supporting early research and development of various biotech products. However, increasingly private companies have invested heavily in biotech but mostly in the business end to bring products to the markets. Of course some have strong Research and Development (R&D) programmes and many pursue R&D in conjunction with academia. The majority of early biotech researchers in academia were motivated by the public value of their work rather than private benefits. That situation has not largely changed, but is changing rapidly as more institutions are encouraging start-up companies to emerge from university labs and/or license their patents to private companies.

Small biotech start-ups have generally enjoyed a strong partnership with universities and/or larger corporations (e.g. pharmaceutical companies that see potential in the work of the start-ups). Most of these start-ups see patents as the vehicle to transfer their work to the larger company for commercialisation and their own long-term viability. This seriously undermines the purpose of the patent system which sees a patent not as an end in itself but a means. Of course, what these small biotech companies engage in is not illegal but certainly it serves little to advance science and technology if the patent is used to prospect for investment resources from elsewhere. Moreover, many of them seek patents before their research has matured and is ready for commercialisation. That necessarily limits more research in a particular area. The ethical and efficacy concerns of

⁶ More about BRICS at <http://www.rcips.uct.ac.za/fundinnov/funding/brics/overview/>.

biotechnology are put aside. There is a concern that patent protection overreach has the potential to slow growth of innovation and research in the biotechnology field.

Utility, for one, requires proof of utility or use, which most biotech innovations cannot demonstrate at the time of filing for patent. As previously noted, these filings come from small businesses and university labs that are yet to develop them into products. Patents at this stage are used as place holders and also a means for securing resources to actually or eventually commercialise their invention. This necessarily subjects the patent system to abuse and of course retardation of the biotech industry and other areas of innovation like nanotechnology. Nonobvious is a difficult standard to enforce with regard to biotech because biotech is a rapidly changing field which makes the assessment and examination of new inventions by the patent offices difficult. This leaves utility as the most important standard for assessing and granting sensible biotech patents.

Beyond the standards for granting patents, for the purposes of this chapter, there are a number of fundamental ethical and possibly legal questions. First is the question of rights for originating sources. If a naturally occurring traditional resource contributes to the emergence of a new bioproduct, should the originating community enjoy some rights in the new product? Put differently, should the source of the property have no right in resultant commercial rights and benefits? Second, does the manipulation of the genetic code of naturally occurring living organisms or the extraction of the genetic code of useful living organisms for mass production of the same constitute innovation and the resultant organism or bioproducts represent intellectual property? Where does the contribution of nature end and human innovation and ingenuity start? Does the 'propertisation' of bioproducts threaten nature in any way since any living thing can be manipulated genetically? Finally, does the genetic manipulation of indigenous resources constitute biopiracy since the scientists are not working with indigenous resources as such but with their genetic materials? Put differently, should biopiracy be extended to genetic resources and levels?

4.3. IP and access issues in Africa

IP and access to knowledge, information or medicine is another area of legal and ethical concern in Africa. IP and access to knowledge or information primarily relates to the area of copyright while that of access to medicine primarily relates to patent. The nexus between copyright and access to information stems from the bundle of rights granted by copyright law to the 'author'. Copyright grants these rights exclusively to the author with a few exceptions and limitations, notably the fair use doctrine mentioned earlier. The exclusive rights granted to the author potentially limit the extent to which the user/publics access protected rights works without permission from the 'author'. While in mature economies where the vast majority can afford to participate in the market economy by purchasing copyrighted works, in Africa the vast majority simply cannot afford to own personal copies of original materials. Hence many rely on photocopies or even pirated versions of the original materials.

Most copyright laws permit rights owners or holders to license third parties to do things like reproduction, translation and other derivative activities. However, many often do not grant such licence, thereby limiting access to only original copies which in many African societies are simply beyond their reach. Other legal constraints are imposed on access by copyright law owing to the exclusive rights. Some of these include the problem of Technological Protection Measures (TPMs) which are digital locks on digital content; orphaned works which are works whose copyright owner cannot be found to grant permission or licence for use of such works, and Public Lending Rights (PLRs) where the copyright owner authorises or prohibits public lending of his or her works by institutions like libraries⁷. EIFL Handbook on Copyright and Related Issues for Libraries discusses a

⁷ See EIFL handbook available at <http://www.eifl.net/eiflhandbookcopyrightenglish>.

number of information access-related constraints imposed by copyright in the context of libraries. While some may not currently apply to African contexts and countries because copyright laws in these countries have not introduced some of these provisions (e.g. Public Lending Rights), the international trends towards harmonisation of international IP systems will eventually likely lead to more African countries adopting the same access-constraining copyright measures. The most notable international agreement relating to harmonisation of IP is the Trade-Related Aspects of Intellectual Property (TRIPS) signed in 1994 to set up minimum standards for the protection of IP among member countries of the World Trade Organization (WTO). Given the increasingly stringent copyright laws, studies have shown that in most African countries where copyright laws are enforced, they have the potential to limit access by shutting down all avenues for access currently available to the majority poor⁸. A similar outcome can be expected if laws are enforced in future where they are currently not enforced or enforced effectively.

The constraints caused by patent law on access to medicine are closely similar to those relating to copyright and access to information. Most medicines are protected under patent law for a limited period of time, normally twenty years. Upon expiry of the patent protection, anybody can produce the same medicine without permission from the developer and owner of a particular drug. Normally these are known as generic drugs as opposed to brand names which are the originally patented drugs. In case of access to medicine, it is well known that most major pharmaceutical companies simply do not invest or do not invest enough in research and development (R&D) of diseases affecting the poorest of the poor in the world. Africa happens to be one of the poorest continents in the world, hence most of the diseases affecting the continent simply have no or little medicinal remedies or attention of the major multinational pharmaceutical companies. This has become a major global problem which has prompted the World Health Organization (WHO) to commission studies on the nexus between IP, public health and access to drugs (WHO, 2006). Often this is not even a problem of patent-limiting access to such medicines because most of these medicines do not exist due to a lack of funding for their development. Of course that raises ethical concerns as to whether public health is primarily and exclusively about the bottom line or profitability.

However, the more troubling and ethical concern relates to medicines available on the markets in both poor and rich countries for which no cheaper generic alternatives are available because the holder of the patent is unwilling to license smaller pharmaceutical companies to produce the generics. This has been particularly the case for a range of antiretroviral medicines for treating HIV/AIDS patients in Africa. Given the extent and scope of the HIV/AIDS scourge in Africa, failure to provide access to such drugs condemns the affected people to a slow death, yet cheap generic antiretroviral drugs would ensure they live longer productive lives. Intellectual property law, patent in this case, becomes a tool for limiting rather than facilitating access.

5. Conclusion

This chapter has looked at the ethical concerns arising from the use or application of IP in Africa. Most stem from the misfit between the 'Western' IP system built around the innovative or creative individual and the historically and traditionally communal or collectivist African systems for the creation and exploitation of intellectual works. While these distinctions have been well documented elsewhere, this chapter makes an important addition to the IP discourse in Africa. It was observed that as the capitalist economy and Western IP systems take root in African societies, tensions are emerging amongst Africans where creative individuals like traditional musicians operating in 'modern' African economies are increasingly at odds with the traditional collectivist values. This raises ethical

⁸ See the African Copyright and Access to Knowledge Project findings available at www.aca2k.org.

as well as legal questions as to who is responsible for the expressive cultural resources from whom the creative individual draws and/or contributes. The issue of bioprospecting and biopiracy is currently being complicated by advances in science, most notably advances in biotechnology. This area of science is blurring the source of biological materials, further complicating the debate around biopiracy. The problem of access to both information and medicine illustrates the challenges imposed by IP on what are basic and fundamental needs on a continent where the vast majority simply cannot provide for themselves.

Generally, this chapter uses the above areas of ethical concerns and the theoretical and philosophical contradictions mentioned earlier to illustrate the need for more engagement and reflection on the impact and role of IP laws in Africa. By no means does the chapter tackle or address each and every ethical concern or for that matter area of IP. Yet the few examples cited demonstrate the detrimental nature of Western IP systems on a continent that was never ready for such systems of protection and rewarding of creativity and innovations. The readers are invited to use the theoretical and conceptual framework provided to examine other ethical issues that arise or might arise.

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