Indigenous Knowledge Systems and Intellectual Property in the Twenty-First Century: Perspectives from Southern Africa

Edited by Isaac Mazonde and Pradip Thomas

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Reviewed by: Garth Mashmann


Summary: This book is a collection of papers written by South African professors regarding Indigenous Knowledge Systems and indigenous peoples’ rights to Intellectual Property protection. The articles focus on the tension between existing intellectual property regimes and indigenous knowledge systems, highlighting the fact that African concepts of ownership are significantly different from Western concepts. Systems which protect intellectual property rights in the West are not adaptable to Africa. Many of the articles call for significant change in national and international intellectual property regimes.

About the Authors: John Kiggundu is a professor at the University of Botswana and is a professor in the department of law. After studying Law at Makerere University he earned his Doctorate in Law from Queen Mary and Westfield College in 1985. He then taught at South Bank University, London. He specializes and has been published in Company Law, Intellectual Property, Mercantile Law, and Private International law.

Mogomme Alpheus Masoga has a PhD and was employed by the National Research Foundation in Pretoria, South Africa.

Kgomotso Moahi is a lecturer at the University of Botswana and teaches health information systems and information science. She has earned a PhD and is the head of the Department of Library and Information Studies.

Isaac Mazonde is Director of Research and Development at the University of Botswana where he has been an associate professor since 1978.

Siamisang Morolong has lectured on the topics of Property Law, Intellectual Property Law, Business Law and Environmental Law at the University of Botswana.

Mogege Mosimege is the manager of the Bilateral Relations Unit in the Department of Science and Technology in South Africa. He has been extensively involved in the Indigenous Knowledge Systems and Intellectual Property in the Twenty-First Century:

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1 Lead Articles Editor for the Syracuse Science & Technology Law Reporter; J.D. candidate, Syracuse University College of Law, expected 2009.
3 Id.
4 Id.
5 Id.
6 Id. at vi.
Systems debate and helped to develop IKS Policy in South Africa. His research focuses on ethnomathematics.\textsuperscript{7}

Otsile Ntsoane has researched and published widely on Indigenous Knowledge Systems and technology transfer. He is Deputy Director in the Department of Science and Technology in Pretoria, South Africa.\textsuperscript{8}

Francis B. Nyamnjoh has published widely in Cameroon and Botswana and taught sociology, anthropology and communication studies. He is an Associate Professor and Head of Publications and Dissemination with the Council for the Development of Social Science Research in Africa (CODESRIA).\textsuperscript{9}

Wapula Nelly Raditloaneng is currently a lecturer at the University of Botswana in Adult Education.\textsuperscript{10}

Alinah K. Segobye is a member of the Archeology Unit of the Department of History at the University of Botswana.\textsuperscript{11}

Pradip Thomas has published articles and books relating to intellectual property and communication rights. He is an Associate Professor at the School of Journalism & Communication at the University of Queensland.\textsuperscript{12}


- **Chapter Summary:** Indigenous Knowledge Systems contain significant knowledge which may be useful to westerners as well as to the indigenous people. The exchange of information can only happen when westerners are willing to acknowledge the benefits of alternative ways of thinking. Then a conversation may begin between those with knowledge and those with the ability to develop it.

- **Chapter Review:** This paper is intended as an introduction to Indigenous Knowledge Systems (IKS). The author first suggests that before any significant amount of knowledge contained in African and other IKSs can be conveyed to western cultures, those from the West, and those who have been trained in western methods of thinking, must be willing to accept that there are additional ways of thinking. Western researchers

\textsuperscript{7} INDIGENOUS KNOWLEDGE SYSTEMS AND INTELLECTUAL PROPERTY IN THE TWENTY-FIRST CENTURY: PERSPECTIVES FROM SOUTHERN AFRICA, supra note 2, at vi.
\textsuperscript{8} Id.
\textsuperscript{9} Id.
\textsuperscript{10} Id. at vii.
\textsuperscript{11} Id.
\textsuperscript{12} Id.
must accept the interconnections of African life. African beliefs must be approached with a holistic point of view. For example, plants cannot be viewed in isolation from their interconnection with the spirit world or from their connection with the wild as well as the domestic animal world.

Once there is a change in the Western approach towards IKS, a discussion may occur between the two. Such a discussion must be a discourse and a conversation rather than the western philosophies dominating IKS. This paper concludes that once an IKS is respected by capitalists, the true wealth of that IKS will be released and both the capitalists and the indigenous peoples will benefit from use of the knowledge.

Chapter 2: Intellectual Property Challenges in Africa: Indigenous Knowledge Systems and the Fate of Connected Worlds

- **Chapter Summary:** This paper highlights the importance of establishing Indigenous Knowledge Systems as a basic human right. IKSs have been undervalued and exploited along the same lines as traditional European-African relations. Eurocentric opinions still control the relationship today and dominate the allocation of intellectual property rights. The authors conclude by urging reform in national and international intellectual property regimes which would protect indigenous knowledge and convey rights to parties on an individual or communal basis.

- **Chapter Review:** The value of intellectual property has increased dramatically since the dawn of the digital age. However, much of the world’s existence is still based on earlier forms of subsistence, such as agriculture, where farmers live off of their own land directly. The difference between western, “dominant,” and indigenous, “marginal,” views of knowledge are increasingly incompatible. Despite some attention the issues surrounding IKS have not been resolved.
The tension over intellectual property rights is derived from differing views of ownership and control. Capitalism is favored at the expense of other views of property ownership (i.e., communitarian and humanistic views) which are essential to African concepts of ownership. As more artistic creations are subject to copyright protection, culture gives way to “debasement and trivialisation”, leading to artistic developments being “judged according to their dollar value rather than by their social worth.”13 This leads to consumption, rather than culture, dominating the measure of a civilization. In turn, intellectual property ownership is reduced to personal ownership, a situation that conflicts with the expectations of many people in the world. Some developed nations have indigenous knowledge collection systems; these systems benefit developed nations at the expense of nations with indigenous knowledge.

The increased influence of intellectual property due to the digital age has lead to a strengthening of intellectual property systems and manifested itself in transnational intellectual property agreements. However, the conversion to digital language benefits those nations that developed the digital language and are best poised to take advantage of it, resulting in a reinforcement of the power structure. While the transnational agreements should theoretically allow individuals from all backgrounds to participate, there is some evidence that the agreements were crafted by and benefit major US companies. This has limited the possible choices of development for developing nations. One of the problems with the present intellectual property system is that it has been manipulated to represent the desires of those who currently have power. For example,

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For centuries, European-African encounters have been characterized by European supremacy which has been perpetuated into intellectual property systems. This is exemplified by the treatment of anthropologists and their relations to indigenous people. Social scientists often exploit local populations through papers or photographs and ultimately gain intellectual property protection for their works. However, there is no incentive to share the profits with the photographed or studied people. It is unlikely that the subjects would agree to their representation to the world at large considering the deplorable manner indigenous people are often portrayed as and the lack of profit sharing.

An intellectual property system should be adapted to allow for community rights in addition to individual rights. Aside from commercial rights, an intellectual property system that recognizes public interests is preferable. The Internet and the digital age have tended to make more knowledge and information accessible, but it is only available when it is paid for, which could marginalize developing nations and deprive them of the wisdom of their Indigenous Knowledge Systems. However, there is hope that if developing nations assert the validity and value of IKS as a basic human right then there may be a future for IKS generally.

Chapter 3: Intellectual Property Law and the Protection of Indigenous Knowledge

- **Chapter Summary**: Copyrights may provide more effective protection for indigenous knowledge than other forms of intellectual property such as patents, trademarks, and confidential information. The most important aspect of copyright law may be
neighboring rights. Neighboring rights are provided to those who perform in ceremonies or belong to groups which hold knowledge. The rights of indigenous peoples must be protected with international laws as well as national laws which are designed to protect those with indigenous knowledge. Model Licensing Agreements as well as university involvement in indigenous knowledge are also essential for international indigenous knowledge protection.

- **Chapter Review:** The purpose of intellectual property law is to provide protection and benefits to those who toil to create new ideas. However, the intellectual property law of many developing nations is still the law which developed nations brought during periods of colonialization. The problem with these laws is that they protect the interests of developed nations, and do not provide protection or benefits to indigenous peoples. For example, early laws in Botswana required a trademark to be registered in South Africa or in the United Kingdom before it could be registered in Botswana. The dominance of the colonizing country perpetuated until 1996 when Botswana enacted legislation that removed these requirements. While some developing nations have removed the preferences for the controlling nations, many have not advanced their intellectual property laws to protect their own people.

Varying forms of intellectual property may differ in value to indigenous people and may be utilized in different ways. The first way of maintaining information is keeping it as confidential information, similar to the concept of trade secrets. While confidential information would provide indigenous people with infinite coverage, there are a few problems with this type of protection. One problem is that the knowledge contained in Indigenous Knowledge Systems is known by groups, or even entire
communities of people. This probably means that the knowledge is in the public domain and therefore the knowledge contained within the system may lack a “quality of confidence”\textsuperscript{14} required to keep it as confidential information. The next problem arises from the fact that researchers arrive in indigenous communities in a variety of different ways and often do not impart the true motives for their visit to the community. As such, information is given to the visitors in a very casual way, making it hard to prove that the knowledge was shared with an obligation not to publicize it. Finally, it is difficult to show that those who have appropriated the knowledge from the indigenous people have used it without authorization.

Indigenous knowledge may be protected with patents, utility model certificates, and industrial designs. These are inappropriate forms of protection because they require novelty, an inventive step, and industrial applicability. These requirements present substantial problems for indigenous knowledge because it often lacks all of these qualities.

Trademarks are not suitable for the community nature of indigenous knowledge because of their personal nature. However, geographical indications and appellations of origins are possible sources of protection. These may be particularly useful because

\[\text{[t]he difference between a trade mark and a geographical indication is that a mark is a sign that an individual trader uses to distinguish his own goods or service[s]... while a geographical indication is used to show that certain products have a certain origin and can be used by all the producers in that region.}\textsuperscript{15}\]


\textsuperscript{15} Id. at 32.
Geographical indications provide benefits in addition to multi person use. Some examples are national and international protection, and protection via collective marks or certification marks. Collective or certification marks can be used by a variety of people, provided a person meets the qualifications. These marks are protected in Botswana, being adopted in other developing nations, and supported by some international cooperation.

Copyright is a final form of protection. While traditional copyright laws protected the interests of imperial nations and their subjects, the laws of Botswana and some other developing nations have changed to protect rights of indigenous people. It is particularly important that copyright laws now protect oral traditions and other forms of expression indigenous people practice that were not protected by prior copyright regimes.

The globalization of intellectual property rights has led to changes in developing nations’ laws. While the rights, both economic and moral, of individual artists are protected by copyright laws, the protection of neighboring rights may be even more important for the artistic members of indigenous cultures. Neighboring rights extend to those who perform and produce a variety of services essential to the production of cultural works. Without neighboring rights, these service providers would not be entitled to protection for their contributions to the art. Neighboring rights stemming from copyright are one of the most valuable forms of intellectual property protection available to indigenous peoples.

There has been a growing international movement to protect indigenous knowledge. International forums to discuss the issue began in 1982 and occur with nearly a yearly frequency today. Most importantly, “[w]orking in co-operation with other
international organisations, WIPO provides a forum for international policy debate concerning the interplay between intellectual property and traditional knowledge and genetic resources.\textsuperscript{16}

Developing countries must place a high premium on protecting their intellectual property. They must act soon to protect their indigenous knowledge and work to promote international cooperation to harmonize laws with other nations. In order to protect indigenous knowledge, developing nations must receive help from local universities which can educate local populations as well as collect, identify, classify and document indigenous knowledge. Development of Model Licensing Agreements which all developing countries can use is a final step in protecting IKS.

**Chapter 4: Protecting Folklore Under Modern Intellectual Property Regimes: Limitations and Alternative Regimes for Protection**

- **Chapter Summary:** Folklore, the traditions of indigenous peoples, is not protected adequately by current regimes of intellectual property rights. Other existing forms of protection do not adequately shield indigenous people from abuses. A new system designed to protect folklore should be developed on national and international levels.

- **Chapter Review:** The use and protection of folklore has recently increased. Folklore is what "human societies have owned through tradition from generation to generation."\textsuperscript{17} It includes literature, practices, arts, and science. Folklore is living, and is not confined to the past.


There are significant reasons to protect folklore through intellectual property laws. Outsiders may obtain intellectual property rights to works derived from folklore, while those within the community are often not able to get protection for their ideas. The creations of indigenous communities are often distorted when the knowledge is removed from the communities, often resulting in a negative global image of indigenous cultures. These issues have been exacerbated by developments in electronic media. “The argument therefore is that folklore should be placed on an equal footing as other intellectual property rights, which are imposed on the global community.”

There are many problems which do not permit folklore to be protected under conventional intellectual property regimes. Folklore does not fit into traditional expressions of intellectual property. First, folklore is created by a community as opposed to an individual; most conventional forms of IP protection guard the individual and not groups of people. While some African nations have begun to protect folklore with national laws, most nations still do not recognize intellectual property created by multiple people. Another issue is that ethnic groups sometimes transcend national borders. Protection of IP for one member of a group restricts the other members of the group and also limits innovation spawned by that idea.

While copyright protection appears to be a useful form of protection for indigenous peoples, it has some significant limitations. Copyright can only protect the expression of ideas and not the ideas themselves. The originality requirement of copyright conflicts with the generation to generation conferral of ideas inherent in folklore. One author may own a copyright, but a community owns the folklore. It may be

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18 Siamisang Morolong, Protecting Folklore under Modern Intellectual Property Regimes: Limitations and Alternative Regimes for Protection, in INDIGENOUS KNOWLEDGE SYSTEMS AND INTELLECTUAL PROPERTY IN THE TWENTY-FIRST CENTURY: PERSPECTIVES FROM SOUTHERN AFRICA, supra note 2, at 50.
impossible to identify the original author. Also, the limited duration of copyright is not ideal for folklore. Some countries have imposed a recordation requirement, which is another source of problems for folklore.

Folklore probably will not receive protection under patent systems because of the limited duration of protection as well as the novelty requirement; most folklore is already a part of the public domain. Industrial designs are not a good source of protection because of a limited term. Furthermore, folklore does not fit well into the requirements of industrial designs. Trademarks may be useful for some applications, but the requirement that the mark be used in trade may prohibit many groups from taking advantage of this protection. Unfair competition only protects certain acts, and therefore does not provide adequate protection. Trade Secret law may provide some protection; however, it is essential that indigenous peoples convey their knowledge under a duty of confidentiality. Neighboring rights are only conveyed to those who perform acts; therefore, any folklore that remains unperformed cannot be protected this way. In general, conventional intellectual property regimes do not afford adequate protection to folklore.

Nontraditional forms of protection may be better suited to folklore. While moral rights, those which protect authors from disparaging use of their work, theoretically are good sources of protection, they are limited because they only attach to individuals and are limited in how they can be asserted. Customary laws, laws developed in the area of the folklore, should be a good source of protection, but are not because they often lack enforcement mechanisms. Methods of giving payment to indigenous communities such as domain public pay and droit de suite, return value to communities but do not allow
them to control the way their knowledge is used. Using contract instead of property law could solve many problems; however, there are many opportunities available for abuse of indigenous peoples. Human rights laws are another avenue of protection, except that they tend to protect individuals rather than groups. A second problem with human rights laws is that they protect against intrusion by the government and do not address corporate abuses. Some advocates of folklore have suggested documenting folklore. However, this makes folklore more available to western cultures and those who would abuse it.

The author advocates for a sui generic system; “a system of its own kind specifically designed to address the needs and concerns of a particular issue.”¹⁹ Such a system could be developed so that it would protect the rights of groups as well as the rights of individuals. In addition, they could be developed to protect all forms of folklore.

Chapter 5: Copyright in the Digital Era and Some Implications for Indigenous Knowledge

- **Chapter Summary:** This paper first summarizes copyright law, fair use law, and fair use in the digital era. The author then discusses intellectual property and indigenous knowledge and digitalization of indigenous knowledge.

- **Chapter Review:** The author begins with an introduction to copyrights. Most importantly he notes that “IP rights are meant to reward, recognise and encourage innovation and creativity.”²⁰ The fair use doctrine was difficult to enforce before the

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digitalization of information. Factors weighed in determining if there is infringement or fair use are, the educational value, creative nature, substantive value, and market effect.

The digitalization of information has made information available to more people in a shorter period of time. However, digitalization has also increased the opportunity for people to copy information. While there is considerable debate over whether downloading constitutes copyright infringement, there is some suggestion that downloading materials is necessarily copying, and therefore copyright infringement. The danger of copying has inspired many content owners to license information rather than sell it. This has put the first sale doctrine into questionable applicability. It has also altered the essence of fair use, particularly when it is difficult to tell if someone has created his own ideas or simply pulled from other sources.

There is a conflict between intellectual property rights and indigenous knowledge. The communal nature of indigenous knowledge, the oral tradition which surrounds it, and its significant market value are reasons why indigenous knowledge deserves protection. However, communities with indigenous knowledge lack the legal and economic means to protect their ideas. Additionally, many indigenous cultures are in danger of being eliminated. The desire to document their knowledge begets the question of who controls the documented knowledge. Digital knowledge has infused these questions with additional urgency. The inherent conflicts between intellectual property rights and indigenous knowledge systems have been compounded by the digitalization of knowledge and the global market.

Chapter 6: The Gods are Resting There: Challenges to the Protection of Heritage Sites through Legislation and Local Knowledge
• **Chapter Summary:** Heritage is not limited to artifacts and locations but also includes customs and traditions, which still occur on a frequent basis. Much of the protection available to heritage sites is targeted towards colonial establishments and not toward indigenous sites. The protection indigenous communities are able to get through legislation is often not enforced.

• **Chapter Review:** Heritage is not only what has been passed from generation to generation but also what can be passed to future generations. Heritage has traditionally been considered to be sites or artifacts of spiritual and religious importance, but also includes “the intangible things such as ideas, or knowledge systems held and passed on in an oral medium from generation to generation.”21 The value of these systems has been determined by archaeologists who “mainly determine value on the basis of the potential scientific value of objects and their contribution to knowledge.”22 This method of evaluating heritage has deprived many communities of their input into what constitutes a heritage site. Another source of conflict is that the government essentially owns heritage sites, angering indigenous communities who still use the sites.

Many African nations have begun to pass legislation protecting heritage sites, but this legislation often lacks enforcement. The specifications of this legislation lead to protection for ancient sites and for colonial European sites but does not provide adequate protection for indigenous sites. Many of the sites are under-funded, create a conflict between the indigenous people who still use the sites and those who are seeking to protect them, and create conflict between site researchers and indigenous communities.

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22 *Id.*
“Modern forms of knowledge and site protection systems imposed on local knowledge systems are sometimes inadequate in reflecting the heritage protection needs of communities and can bring discordance in the management of these heritage resources, thus undermining the long-term sustainability of any protection system.”

While there has been an increase in the amount of tourism which comes to South Africa, that tourism is largely drawn by wildlife rather than heritage. However, people are increasingly traveling to experience the exotic cultures present in South Africa. Tourism undoubtedly brings immense resources, but diminishes the purity of South African cultural heritage. Tourism increases the damage that is done to indigenous heritage sites.

The protections for heritage sites are limited. Indigenous communities have little control over what is determined to be a heritage site, and many of their sites are excluded either intentionally or by the framing of the protecting legislation. Often limitations are placed on the location and age of a site. These limitations render many cultural ceremonies that are still practiced unavailable for protection. There is an inherent conflict between use and preservation.


• Chapter Summary: Studies conducted by South Africa and the World Intellectual Property Organization have shown that indigenous knowledge is important, but may not be protected adequately by present intellectual property regimes. Although there is

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pending legislation in some countries, the complex problems which indigenous knowledge presents are still not resolved.

- **Chapter Review:** In 1996 South Africa began an audit of the Indigenous Knowledge Systems in three of its provinces. The goals of this audit were to (1) identify indigenous technologies, (2) compile a database, (3) determine which can be developed into business opportunities, (4) develop indigenous knowledge into business opportunities, (5) establish policy on IKS, (6) establish legislation regarding IKS, (7) improve interaction between indigenous communities and researchers, (8) assist communities in developing technologies, (9) train individuals to be able to create a database, and (10) train students to interact with communities. Some of these goals were successfully initiated, while others met significant difficulty.

The World Intellectual Property Organization simultaneously conducted research regarding traditional knowledge and intellectual property protection. They found the dominant view to be that intellectual property is not capable of or suitable for protecting traditional knowledge. In addition, many people in the survey were not aware of what protections IP could provide for traditional knowledge.

Indigenous knowledge presents many complex problems not currently accounted for in intellectual property systems. Current pending legislation in South Africa aims to fix many of the problems indigenous knowledge has. If successful the new system will allow for protection of indigenous knowledge and IKS along with traditional forms of intellectual property.
Chapter 8: Intellectual Property Rights and Natural Resources: A Case Study of Harvesters of Medicinal Plants in the North-West Province, South Africa

- **Chapter Summary**: There are significant problems with the protection of indigenous medical plants. Currently, these plants are taken by outsiders without appropriate compensation. The outsiders gain intellectual property rights to the plants and diminish the wealth of communities. A change in intellectual property regimes could adequately protect medicinal plants known to indigenous communities.

- **Chapter Review**: Indigenous communities should have rights to the resources they have developed over thousands of years and trials. Intellectual property rights are not typically available to communities and farmers who have inherited knowledge. When international companies take intellectual rights, farmers and indigenous communities are impoverished. The author urges an ethical argument: everyone should have equal access to obtaining intellectual property rights. People, including indigenous people, have a right to the products of their labor, including ideas. A re-colonization is taking place when rights are denied to indigenous people.

  Everyone should be entitled to the opportunity to gain intellectual property rights. However, many obstacles prevent indigenous people from obtaining intellectual property rights under current regimes. One problem is a lack of documentation. The indigenous people of Africa are not able to prove the years of trials which have been conducted because they have not documented their use of plants. The scientists who use the plants do not actually discover anything; they are merely pirating the indigenous peoples’ ideas. African governments have a responsibility to make sure that intellectual rights to plants are retained. African universities have recently begun to document indigenous use of plants, which results in the rights being kept within the country. But, the communities
responsible for the knowledge do not receive the benefit of that knowledge. Alteration to intellectual property regimes could provide rights to knowledge to indigenous communities.

Chapter 9: Protection and Promotion of Local Music: A Talent that Educates, Entertains, and Binds

- **Chapter Summary:** Music is essential and important. It is also difficult to protect. Many African nations are presented with a new and difficult question to resolve regarding the protection of and rights to music.

- **Chapter Review:** This paper stresses the importance of music. Music performs many different and important functions; among them are education, entertainment and binder. Binder is music’s ability to bring people together and provide a sense of unity, pride, or support. Music is also a method of storing cultural information.

  Music is important, but it is also difficult to protect. The protection of music in Africa poses some particularly interesting questions. Copyright protection requires recordation in some way. However, recordation was not the norm in many African cultures, which makes it difficult to determine who now should be attributed with what rights regarding existing music. Music may also fall into the category of folklore, which provides other means of protection. A final question posed by the recent developments is: who has the right to produce traditional songs, and how should the revenue be shared?

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