

# *A Moral Reflection on the Information Flow From South to North: an African Perspective*

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In most discussions of the digital divide, the emphasis is on assisting developing nations by facilitating the flow of information resources from the developed countries to the developing – a North-South flow. The South-North flow of information receives less attention. A number of moral questions arise from the current state of South-North information flow, six forms of which are analysed in this paper with particular reference to Africa. The discussion is approached from an ethical perspective based on a specific moral frame-

work based on three moral claims: (1) there exist universal information-related human rights – the right of freedom of access to information, the right of freedom of expression, and the right of individuals and groups to control the information they have generated; (2) the notion of a common good, predicated on a moral community which shares certain values, imposes an obligation to share information; and (3) justice is the main normative tool that can be used to regulate the flow of information.

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## *Introduction*

“Bibliographic imperialism!” Attending a meeting of African librarians, one of the authors (Lor) was taken aback by certain criticism levelled at the US Library of Congress Office in Nairobi, Kenya. This office acquires books and government documents published in African countries – materials that are difficult to obtain through normal trade channels – on behalf of the Library of Congress and other libraries subscribing to a co-operative acquisitions program. This activity was what was labelled as “bibliographic imperialism”. At first sight this appears odd, even irrational. After all, the materials in question are published and available to all buyers, including African libraries. And since the materials are published, it is not a question of unique heritage items being lost to Africa. In fact, one might argue, the Library of Congress is doing African countries a favour by collecting, bibliographically recording and preserving for posterity material that, as a result of poor library conditions and inadequate biblio-

graphic control in the countries concerned, might otherwise be lost to them altogether.

At issue here are not the merits or otherwise of the Library of Congress’s acquisitions efforts in Africa, but the perceptions that were aired, and the deep frustration that is revealed. It is suggested that the frustration of African library and information workers arises from the unequal relations between their institutions and those in the developed countries. This paper explores aspects of these relations, looking specifically at South-North information flows, i.e. information flows from the developing countries (the “South”, for short) to the developed countries (the “North”).

*If we bridge the digital divide,  
which way will the information flow?*

In most discussions of the “digital divide”, the emphasis is on assisting developing nations by facilitating the flow of information resources from the developed countries to the developing countries – the North-South flow of information.

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Many programs, funded by a variety of donors, have pursued this goal, often with no more than short-term benefits. In her study of African university libraries, Diana Rosenberg found that these libraries have become excessively dependent on donor funding – in some cases donors provide between 90% and 100% of acquisitions funding, replacing funding that should have been provided by the university. If this funding is terminated, acquisitions grind to a halt (Rosenberg 1997, 43–45). This is a classic example of donor dependence. Not surprisingly, the issue of sustainability of donor-funded projects looms large over current discussions of such projects.

This is not to say that North-South information flow is a bad thing or that programs that assist African libraries to acquire information resources from the North are futile. Such programs are not uniformly unsuccessful and they can be extremely helpful, while they last. More recently publishers themselves have moved into this arena with schemes to provide low-cost electronic journal access to the world's poorest countries. No matter that these publishers may be motivated by "a strange admixture of public relations – usually directed towards the profitable Western customer-base – and altruism" (Silver 2002, 91), access is access and may be a lifeline for isolated and under-resourced African scientists and scholars.

In this paper, however we focus on the South-North flow of information from the developing countries. Much less attention is paid to this. This relative neglect reflects an assumption that the South has little to contribute – an assumption that is not necessarily valid. This paper analyses six forms of South-North information flow with particular reference to Africa:

- Contributions by African scientists and scholars to the international scientific and scholarly literature.
- The purchase of books, journals, government documents and other material published in African countries by libraries in developed countries to add to their research collections, already touched on.
- The export of documentary heritage through various means, including the purchase of rare books, private collections, writers' archives that come onto the market in African countries by wealthy individual and institutional collectors in developed countries.
- The use of local resources and informants by students and researchers conducting research in African countries.

- The recording and subsequent commercial exploitation in developed countries of indigenous knowledge obtained from traditional communities and practitioners in African countries.
- The "brain drain" or migration of well-educated African scholars and professionals to developed countries.

The paper outlines pertinent aspects of these forms of South-North information flow and examines moral concerns that arise from them.

### *A proposed moral framework*

The moral questions put forward in this paper are based on certain claims on human life and values and on a perspective on what is viewed as a common good for society. It therefore provides a moral framework and a common vocabulary in which these moral questions and arguments can be cast. These moral claims are that: (i) there are universal information related human rights; (ii) there is a common good that consist of those things that society share to everyone's benefit; (iii) social justice is the primary tool that must provide the moral standard for assessing a society. These three moral claims will be elaborated upon.

#### *(i) Universal human rights*

Based on Rawls' moral theory (1973) it is argued that human rights form the basis for moral reasoning. There are certain universal human rights, which are grounded in human nature and which are inalienable, and inviolable (Locke 1988, Hamelink 1999, 68). This is based on the premise that human beings are fundamentally all of equal value. It requires that each individual must be treated as an end in her- or himself (Kant 1909).

Based on this reasoning the following information-based rights, which must regulate the South-North flow of information in the world, can be distinguished:

- The right of freedom of access to the information that is needed to exercise all other basic rights. It is a positive right and correlates with the duty to share knowledge with others to enable them to exercise their basic rights (Britz 1998, 11). As such it is an expression of the moral principle of autonomy, which enables individuals to shape their own lives.

- The right of freedom of expression. This implies the freedom not only to hold and express opinions, but also to seek and receive information. As Woodward puts it: "... the [right of access] to the intellectual efforts of others and a right to distribute one's own intellectual efforts" (1990, 10). This right is an expression of both the negative and positive liberty of individuals and groups – the right not to be interfered with (negative) and the right to express opinions and receive information (positive).
- The right of individuals and groups to use and control self generated information. The exclusive right to ownership of information is excluded as a basic natural right. It is rather viewed as a secondary economic-based right that can never override the right of access to essential information (Drahoš 1996, 14).

These rights are however *prima facie* and conditional and therefore not absolute. One can for example exercise these rights only insofar as it does not interfere with the rights of others.

### (ii) Common good

Although human rights are seen as the basis for morality, the notion of a common good is also of vital importance for the moral understanding of, and reflection on, the South-North flow of information. It pre-supposes the reality of a moral community that shares collectively certain values that are to the benefit of all. As such it provides the basis and context for social ethics. The shared values in the South-North flow of information are the striving for mutual understanding, respect for one another (based on the acknowledgement of others' rights) as well as the creation of harmony. The common good can be maximised by the sharing of knowledge on an equal basis between the North and the South. Levy (1999, xxv) uses the concept 'collective intelligence' to describe this notion. According to him it implies "... the lifting of restrictions on heretofore banned communications, and effecting the mutual liberation of isolated thoughts" (1999, xxvii). Habermas (1989), in the same line of thinking, refers to the 'public sphere' as a platform that must be created to share knowledge and create mutual understanding. Based on this common good it can be argued that the equal sharing of knowledge (North-South and South-North) is a moral obligation that we cannot escape from. It must therefore not fail to accommodate the information poor in the South.

### (iii) Justice

Justice, formulated in the Aristotelian communal view as the act of giving a person what s/he deserves (*suum cuique tribere*), is the main normative tool that can be used to regulate the South-North flow of information. It is congenial to modern thought because, as a virtue, it expresses the idea of respect for others and emphasises the responsibility for safeguarding one another's rights (Rawls 1973, 3). It is also a negative virtue in the sense that it aims to prevent negative and destructive acts such as the creation of conflict (Hampshire 1982, 68). A threefold typology of justice is put forward that can be used to ensure a fair and just South-North flow of information. In this typology, which is based on the United States' National Conference of Catholic Bishops pastoral letter on social teachings (1997), three interrelated types of justice are distinguished: commutative justice, distributive justice and contributive justice.

- Commutative justice requires "fundamental fairness in all agreements and exchanges between individuals or social groups" (National Conference of Catholic Bishops 1997, 42). Applied to the South-North flow of information it means amongst others that the taking and use of South-generated information cannot be without their consent and fair compensation.
- Distributive justice takes as its starting point the fair and equal distribution of information that people need to exercise their basic rights as well as the fair distribution of information to enable mutual understanding. However, this form of justice may allow the unequal distribution of certain categories of information (Rawls 1973, 64); for example information that is protected under intellectual property regimes. Such unequal distribution of information is however only justified if it is to the benefit of the common good.
- Contributive justice has a bearing on individual as well as social responsibilities. It implies that an individual has the responsibility to be active in society and to contribute in a positive manner to the achievement of the common good. Society has a duty to facilitate these individual activities without impairing the freedom and dignity of the individual. Applied to the South-North flow of information it implies that, on the one hand, individuals have the responsibility to create knowledge that must benefit society. On the other hand society has the obligation and duty to ensure that the infrastructure is in place to provide individuals with the means to create and distribute knowledge and to ensure that they receive a fair economic return on their efforts.

*Contributions by  
African scientists and scholars*

In the context of programs to bridge the digital divide, the most obvious form of South-North information flow, that will reflect distributive as well as contributive justice, would be contributions by African scientists and scholars to the international scientific and scholarly literature. In a seminal paper Gibbs (1995) showed that scientists from developing countries face severe obstacles – ranging from resources constraints to simple prejudice – when they wish to contribute to international (western) scientific journals.

Why does such a small proportion of the world's scientific and scholarly literature that is published in high-ranking journals and indexed in key research tools such as the citation indexes of the Institute for Scientific Information (ISI), emanate from the South? A chain of factors, or a series of barriers, can be identified:

- Much of the research undertaken in the South does not comply with quality standards set by high status journals. Some of the research is simply poor, due to deficiencies in the researchers' training and equipment. Some researchers have a poor command of English, so that what they submit for publication is rejected on the grounds of poor conceptualisation.
- Communication barriers must bear much of the blame. The inadequate North-South flow of scientific literature makes it difficult for African researchers to reach the cutting edge of research in their fields.
- In common with researchers everywhere, not all African researchers get around to publishing their research. This is a particular problem when there is inadequate access to publication media. Some research may be published in the grey literature (theses, dissertations, research reports) and consequently be effectively lost to the scientific community as a result of poor bibliographic control.
- African authors who wish to publish locally face considerable obstacles. Academic journal publishing in Africa is in decline and the remaining journals, numbering perhaps 150, are vulnerable. Some formerly respected journals have ceased publication or have been reduced in size and frequency. Libraries are reluctant to subscribe to them because many are poorly managed and appear irregularly. Content and editing leave much to be desired (Rosenberg 2002, 51; 54; 55).
- When African scientists and scholars do publish in the national scientific journals of their countries or in regional (e.g. pan-African) journals, their contributions are likely to be ignored in the North. Not only are most

of the journals not covered in the major abstracting and indexing databases, but also even if they are, they tend to be ignored by American and West European colleagues. The most charitable explanation for this may be that the African journals are perceived as being difficult to access in Europe or North America. A less charitable explanation is that work published in African journals is simply dismissed a priori when a literature search is undertaken.

- Finally, a small percentage of the scientific work, having crossed the above barriers as well as the sheer prejudice referred to by Gibbs (1995) and De Koker (1995), reaches the international publication system.

It is not always realised that these barriers impede not only the South-North flow of information but, by the same token, the dissemination of research results within and between developing countries (South-South information flow). Because bibliographic control is poorly developed in most African countries, they are dependent on international (North-based) indexing and abstracting services to retrieve their own contributions. If these services ignore them, their contributions are lost to the countries of origin, and to their neighbours as well.

Many countries attempt to evaluate the outcomes of national expenditure on research by looking at the international impact of their research publications. Typically this is measured in terms of the coverage of these publications in international indexing and abstracting services, especially the citation indexes published by the ISI. Even in the developing countries themselves, the ISI's indexes have achieved iconic status. South Africa is a case in point. Academics at South African universities earn a government subsidy for each article published in an 'accredited' journal. The official list of accredited journals is largely based on those of the ISI's indexes, which cover very few South African journals. This assumes that only research which is published in international "high impact" journals, most of which are published in the West, is research of quality. There may be a significant amount of published science that is not "visible" from the international point of view (Anduckia, Gomez & Gomez 2000, 4). This prejudice does not serve the common good and can even be viewed as a form of information injustice. From a moral perspective the following questions can be asked: What is the moral responsibility of authors in developing countries

with regards to their contribution to the body of knowledge in their respective countries? What are the duties of governments in these countries to ensure that these authors publish in local journals?

The inclination of African authors to bypass domestic journals poses a serious threat to the survival of African journals. It is a well-known phenomenon in developing countries worldwide. Their scientists are known to prefer publishing in internationally recognized journals because this is more advantageous to their careers (e.g. Fernandez 1999, 23; Cao & Suttmeier 2001, 968). This is not new and not dependent on Internet connectivity, but the Internet would accelerate it, threatening the continued existence of journals published in developing countries. The disappearance of these journals would be detrimental to both research and its dissemination in Africa. Local journals play an essential role in the ecology of scientific communication. They publish material which, while not necessarily of interest in the developed North, may be of direct relevance and utility to the country of origin and its neighbours.

A possible solution might be the Internet. It offers opportunities for giving greater visibility to African journals. In recent years a number of projects have been launched to exploit these opportunities. The International Network for the Availability of Scientific Publications (INASP), based in Oxford, England, in 1998 launched the pilot project of African Journals Online (AJOL), which displayed the tables of contents of 15 English-language African journals on INASP's Web site ([www.inasp.org.uk/ajol/](http://www.inasp.org.uk/ajol/)) and provided a fee-based article delivery service. AJOL has subsequently been expanded to over sixty titles including French-language and South African journals that had initially been excluded. Initiatives to make the full text of African journals available electronically constitute another manifestation of contributive justice on the part of the North. These include the African e-Journals Project (AEJP) of the African Studies Center of Michigan State University and the inclusion of a number of African biomedical journals in the Bioline full text service ([www.bdt.org.br/bioline/](http://www.bdt.org.br/bioline/)) (Rosenberg 2002, 54).

However, such initiatives do not necessarily remedy the more fundamental quality problems

mentioned above. These are addressed by INASP i.a. by offering training workshops for journal editors and publishers (Rosenberg 2002). Nevertheless Rosenberg raises the question of the sustainability of projects such as AJOL. She also asks whether projects to provide African scientists and scholars with low-cost electronic access to Western journals may not sound the death-knell of indigenous journal publishing in Africa. While undoubtedly well-intended, beneficial and indeed essential, such programs may lead to the "'flooding' of local markets with free or low-cost information from international sources, [which] might wipe out local publishers" (Rosenberg 2002, 55).

A more radical approach that may have greater potential for levelling the playing field between developed and developing nations and that can contribute to the establishment of the common good, is that of open archiving, which is part of a world-wide movement to reform scientific publishing. Inspired by the physics e-print archive at Los Alamos National Research Laboratory, New Mexico, open archiving, or "self archiving" entails the deposit of research papers in databases hosted on servers linked to the Internet, from where they may be retrieved free of charge by researchers located anywhere in the world. Open archiving not only provides a means of affordable access, but also a medium for scientists and scholars in the developing countries to make their world available to others anywhere (Chan & Kir-sop 2001).

Speaking of North-South and South-North information flows holds furthermore a risk of oversimplification. For optimal benefit to both parties, synthesis is desirable. An example is the inclusion of local content in training and reference materials for health workers in developing countries. Synthesis is not easily achieved. Ballantyne (cited in Stanfield 2002) refers to

... the balance of pressures between local content of knowledge and information (guiding local practice) and international content of knowledge and information targeted at influencing local practice. The superior pressure of outside pressure ... is in danger of flooding and drowning local and often more relevant and practical wisdom. This, of course, has been the danger of "northern aggression" whatever the means and volume of communication. ...most local content is invisible to international audiences because they lack the necessary means to access local content channels and are cut off from most local development knowledge ...

The relevance of training and reference materials can only be determined by the end users. Rather than North-based institutions trying to "tailor" their material for users in the South, local experts should be empowered to contribute the local knowledge that is necessary for local relevance (cf. Brauchli 2002). The creation of synthesis is an excellent example of mutual respect and the sharing of knowledge to benefit all.

### *Purchase of African publications*

The purchase of books, journals, government documents and other material published in African countries by libraries in developed countries to add to their research collections, has already been touched on. Other than the Library of Congress a number of major research libraries in the North systematically collect African material, for example the Melville J Herskovits Library of African Studies, Northwestern University, Evanston, Illinois, the Centre for African Studies Library at Leiden University, the Netherlands, and the School of Oriental and African Studies Library, University of London, England, to mention only some that we have visited ourselves. Apart from the Co-operative Acquisitions Program of the Library of Congress, one can also mention the Co-operative Africana Microfilm Project (CAMP) in the United States, and the work of the Standing Committee on Library Materials on Africa (SCOLMA) in the United Kingdom.

In the well-resourced research libraries participating in such schemes African scholars are likely to find more comprehensive, better organised and better preserved collections than they would in their own countries. The resentment this arouses among African librarians is seemingly illogical. However, it may reflect a deep frustration at inequality in access to resources, which leads to a situation in which the acquisition, bibliographic control, preservation and availability of material published in African countries may be better organized and more effective in the North than in the country itself.

It seems to be a moral dichotomy on the one hand to argue that the flow of African publications to the North is impeded by various unfair barriers, and on the other complain about arrangements made by European and North American research libraries to ensure the efficient acquisi-

tion of these same materials. However, there is a seemingly unfair economic dimension to this that has been raised by Limb (2002a, 10). He points out that such schemes can have

... unintended deleterious effects on local publishers. African journals that rely on scarce foreign income through overseas subscriptions to survive can find at their door local agents of Western libraries buying issues in local currencies.

Thus the Western research libraries benefit from the low value of local currencies to obtain African publications for a song, well below what they are worth and what the libraries can pay. Such a situation does not reflect commutative justice and does not respect the right of the South's scholars to control their own body of knowledge. Limb's suggestion that Western libraries should pay for these materials "at prices more akin to Western rates" might be seen as an appropriate and fair solution.

However, this is still a complex moral problem. Each proposed solution has unintended consequences:

Problem (a): In the interest of unbiased and fair dissemination of knowledge, libraries in the North should be buying and making available African publications – as many as possible. However, these publications are very difficult to acquire through "normal" commercial channels. Solution: Acquisitions schemes using local agents.

Problem (b): The African publishers are likely to lose out on their foreign currency income. Solution: Pay in foreign currencies at "prices more akin to Western rates".

Problem (c): Payment at "Western rates" combined with the high labour costs entailed in the acquisition of the materials may well discourage mildly interested libraries that might have purchased these materials, limiting the purchasing to a small elite group of scholarly Africana libraries.

Perhaps the problem needs to be approached from the angle of the aggrieved African librarians rather than from that of the Western libraries. Based on contributive justice and the right to control their own information, we need to consider the nature of information aid that developing countries should be receiving. It is suggested that developing countries need assistance in the collection, bibliographic organisation, availability and preservation of their own production of information materials as much as they need assistance in

accessing the information materials produced in developed countries.

Based on the right of access to information it can in addition be argued that research libraries, holding African publications acquired through co-operative schemes, should be generous in providing African scholars and libraries with access to their collections. This would include the provision of free access to databases and the donation of sets of microfilmed and digitised materials compiled on the basis of such schemes. An example is the approach of CAMP, which has returned duplicate microfilm collections to Africa (Limb 2002a).

### *Export of unique African documentary materials*

Another moral concern, specifically with regard to the right of developing countries to control their own body of knowledge, is the illicit traffic in the cultural property of African countries, ranging from the theft of artefacts from museums, the "looting" of archaeological objects and illegal diggings by local people, to the illicit sales of works of art. There is enormous literature on this topic and several international agreements have been reached to protect cultural property of these peoples (Galla 1997, 154). However, among the thousands of items turned up by a Web search using Google, there were only a few that referred to books, and hardly any that referred to books in Africa (as distinct from Africana already in Western collections).

Not enough is known about the extent to which rare books and unique manuscripts, private collections, and writers' archives that come onto the market in African countries are purchased by wealthy individual and institutional collectors in developed countries. Limb (2002b, 52) refers to a "document drain" but offers only anecdotal evidence. However, two recent incidents in South Africa illustrate the problem.

In 2000 rumours circulated that the African National Congress (ANC) was planning to deposit "thousands of boxes" of its archives to the University of Connecticut in the United States. This would be in spite of the designation in 1992 of the University of Fort Hare, in the Eastern Cape Province of South Africa, as the depository of the ANC archives. Rumour had it that this decision was

related to an alleged inability of Fort Hare to look after the material properly. In place of the originals, Fort Hare would be provided with a complete set of microfilms. The rumours appear to have originated from an agreement entered into by the ANC and the University of Connecticut in March 1999, in terms of which that University would be "a major repository for ANC materials in North America" (University of Connecticut 1999). The precise implications of the agreement were not clear. If it had been intended that original ANC documents would be deposited in Connecticut, the resulting outcry must have led to a change of plans. There was sufficient public concern for the chairperson of the ANC's Archives Committee and Speaker of the South African Parliament, Frene Ginwala, to deny the reports (Carlisle 2000).

Also in the Eastern Cape Province of South Africa, the National English Literary Museum (NELM) in Grahamstown, recently lost the private papers of the famous South African dramatist, Athol Fugard, which it had held on permanent loan, to a US university which purchased the collection when Fugard put it on the market. The University in question, which already holds the papers of Nobel prize-winning South African author Nadine Gordimer, intends to acquire the papers of other South African writers and artists. The university attempted to justify the purchase by alleging that NELM was poorly equipped and unable to care for the material appropriately (Riddle 2001). This was denied by NELM's director as grossly untrue (Hacksley 2002, 13). It also appears intolerably paternalistic.

These cases raise a number of questions. The papers in question are collectibles and as such have commercial value. In terms of the free market capitalist paradigm, their owners have the right to put them on the open market and sell them to the highest bidder. But do these materials not also have a different kind of value? It can be argued that the papers of the African National Congress, Athol Fugard and Nadine Gordimer form part of the cultural and intellectual heritage of South Africa. In that case is that not where they should stay, for the benefit of the people of South Africa, to derive from them a sense of national identity and accomplishment as well as inspiration for the future? If they stay, they will also attract foreign tourists to view them and foreign scholars to study them, bringing with them

foreign currency to help maintain the holding institutions and create local job opportunities. But what if South African institutions do not have the resources to look after the papers properly, so that they are at risk if they stay here? Nobody can deny that they should be properly cared for. Furthermore, it can be argued that they are not only part of South Africa's national heritage but also part of the heritage of all humankind. In that case would it not be sensible to remove them from where they are at risk to some other country where they will be lovingly and expertly preserved for posterity, as so many treasures from the South are cared for in the Louvre, the British Museum and elsewhere in the museums and galleries of the former colonial powers? Will such exchange and preservation not contribute to the achievement of the common good – in other words: will it not contribute to the creation of a common ground for mutual understanding and respect? This line of argument needs to be explored. In a paper dealing with the repatriation of archives, Werner Hillebrecht (2002, 29), a Namibian archivist, states rather surprisingly that Namibia and other countries in similar circumstances would be satisfied with microfilms or other reproductions of their documents held by colonial powers. But he also points out that the alleged insecurity of African archives is an "Afropessimist" myth, and that the alleged security of Western archives is also a myth.

Source material for the history of countries of the South, along with their cultural and artistic treasures, is known to be scattered in many parts of the world, with particular concentrations in the former colonial powers. In fairness it has to be said that the cultural heritage of the wealthy countries of the north is scattered too – one only has to page through a book on the French impressionists to see that their works are by no means only to be found in France. This raises three more general questions: (1) where do we draw the line between the heritage of humankind and the heritage of a particular country; (2) which of these should be accorded priority; and (3) are the poorer countries of the South a special case? Based on the moral framework presented here it is the opinion of the authors that the source material of peoples of the South (and for that matter all indigenous peoples) belong in the first place to themselves.

One way to ensure control and access to cultural property is the introduction of legislation to regulate the export of cultural property. In South Africa the National Heritage Resources Act, No. 25 of 1999, which created the South African Heritage Resources Agency (SAHRA), includes in its definition of the "national estate" (Section 3) "books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings ..." Although SAHRA does not restrict their ownership or sale, specific moveable objects or collections, including books and related materials, may be formally declared as "heritage objects" if SAHRA considers it necessary to control their export (Section 32(1)(h)). SAHRA has powers to prevent or delay the sale of heritage objects to foreign buyers.

By 1988 some 42 African countries had some or other legislation in place which covers the export of cultural property (Prott & O'Keefe 1988). By now there are probably more. If there is no such legislation, or if the legislation does not apply to documents, the purchase of such material by foreign collectors and institutions poses moral rather than legal questions. There is some doubt as to whether legislation preventing the indiscriminate exportation of cultural heritage is effective in controlling this. Furthermore, in many cases, the legislation would come far too late, the materials having already been removed during colonial times – which raises the question of the repatriation of collections of such materials.

In this connection it is worth noting that legal deposit legislation of colonial powers in some cases applied to their colonies as well. Along with a stream of artefacts and specimens that flowed from the colonies into the learned institutions of the colonial powers there was also a trickle of publications. In South Africa the earliest form of legal deposit was introduced in 1842, when the British Copyright Act was made applicable to all the colonies and territories comprising the British Empire. One of the provisions of this Act was that a copy of each publication had to be deposited with the British Museum. This compelled publishers in the Cape Colony and later the Colony of Natal to send a copy of each printed work to London, to be added to the British Museum's Department of Printed Books, which was the forerunner of today's British Library. Unfortunately this provision seems not to have been

very effective. It was only later in the 19<sup>th</sup> century that libraries in South Africa were designated as legal depositories (*Explanatory memorandum ... 1991, 1*).

Due to the fact that peoples have a right to access and control their cultural heritage the following question arises: should these legal deposit copies be repatriated? Hands will be thrown up in horror at the likely disruption and damage to the integrity of collections that such a step would bring about. Yet these materials are needed in their countries of origin. At the very least, there should be programs in place to systematically microfilm and/or digitise these materials for the benefit of the national libraries in the former colonies. Lest the digitising of collections of heritage materials be seen as a panacea for this problem as well, we need to point that digitisation is not a sure means of redress. Many libraries and institutions in Africa lack affordable and reliable access to the Internet. Offering them access to online databases of digitised material may be tantalising and frustrating to the intended recipients rather than helpful. And if the material is distributed commercially, the fees payable in hard currencies will almost certainly rule out African users. Such a scenario can indeed be viewed as a form of moral injustice.

### *Use of local resources and informants*

The use of local resources and informants by students and researchers conducting research in African countries represents a significant South-North information flow. From an African perspective a problem arises when this flow is one-way, i.e. when the researchers subsequently fail to provide the host country with copies of dissertations and research publications arising from their work in that country. This can lead to an even further imbalance in the South-North flow of information. There is a strong moral argument, based on distributive and contributive justice as well as the right of access to the intellectual efforts of others, for requiring these researchers to deposit copies of the relevant works in at least one national institution in the country that provided them with their research opportunities and material.

Various measures have been suggested to respond to this. One suggestion has been to amend legal deposit legislation to make it compulsory

for foreign researchers to deposit copies of the relevant research outputs in the national libraries of the countries that provided the research material. The problem is that legal deposit legislation cannot be applied extraterritorially. At best one might exercise moral and other forms of pressure on the researcher if he or she returns to the country to do more research. Another suggestion has been to require the licensing of foreign researchers, imposing conditions such as the deposit of research reports and publications. However, such a measure may have detrimental unintended consequences. For example, it might provide repressive regimes with a pretext for suppressing certain lines of enquiry in social science disciplines.

A more fruitful approach might be to build the necessary stipulations into the ethical codes which are now commonly in place in professional associations. An example is the African Studies Association's *Guidelines of the ASA for ethical conduct in research and projects in Africa* (African Studies Association 2002). The guidelines provide *inter alia* for the deposition of data and publications in the countries where the research was conducted:

Researchers should return the results of scholarly activities to the communities and the country in which the research was conducted, including preliminary reports, papers, dissertations, and all forms of publication. Copies of all findings and publications should be provided to African colleagues and institutions with which they have cooperated or established affiliations. The communities studied or engaged in the research should receive at least a summary of the research and its findings in a form and language they can understand. (Guideline 5)

Guidelines 5 even states that copies of data sets and notes should be deposited in an appropriate institution in the country where the research was carried out.

Today universities commonly have ethical committees that assess the ethical appropriateness of research proposals of graduate students and faculties and impose ethical guidelines relating to research in and on communities. These committees can serve as a watchdog to ensure that research results are fed back to the countries that provided the research settings and materials. They should also ensure that those countries share in any other tangible benefits arising from the research.

### *Utilisation of indigenous knowledge*

Indigenous knowledge refers to the knowledge held by traditional communities and practitioners. It is their accumulated experience of interacting with their environment and of living together as a community.

It has been characterised as follows by the World Bank:

- Indigenous knowledge is local knowledge.
- IK is unique to every culture or society.
- IK is the basis for local-level decision-making in agriculture, health care, food preparation, education, natural-resource management [and] a host of other activities in communities.
- IK provides problem-solving strategies for communities.
- IK is commonly held by communities rather than individuals.
- IK is tacit knowledge and therefore difficult to codify, it is embedded in community practices, institutions, relationships and rituals (World Bank 2002).

Indigenous knowledge is often seen as a system. The National Research Foundation in South Africa defines indigenous knowledge systems as follows:

Indigenous knowledge systems (IKS) refer to the complex set of knowledge and technologies existing and developed around specific conditions of populations and communities indigenous to a particular geographic area (S.A. National Research Foundation (2002a).

This has the merit of emphasising the holistic nature of indigenous knowledge, which makes it hazardous to take it out of its context.

Mainstream Western science has in the past tended to suppress indigenous knowledge or at best ignore or neglect it. More recently there has been a tendency to condescending co-option, characterised by mechanistic attempts to incorporate selected indigenous knowledge in the dominant Western knowledge system. The selection is on the basis of instrumentalist and utilitarian considerations, emphasis being placed on the commercial exploitation of indigenous knowledge (Britz & Lipinski 2001). Even mainstreaming approaches mainly concentrate on what is economically useful. This holds a danger of exploitation and distortion of indigenous cultures. Due to the

fact that there is in most cases no fairness in the agreements and exchange relationships it can be seen as morally unjustified. African indigenous communities were first seen as sources of cheap labour, then as sources of exotic and decorative artefacts – soapstone carvings, clay pots, wooden masks and grass mats. Now they are being recognised as sources of new intellectual property such as new drugs and cultivars.

The recording and subsequent commercial exploitation in developed countries of indigenous knowledge obtained from traditional communities and practitioners in African countries is a well-known phenomenon (Britz & Lipinski 2001). The exploitation of this knowledge without benefit to the people from whom it is derived is mainly made possible by the way indigenous peoples relate to their knowledge. Most African people believe that ownership of information is rarely vested as a property right, and that it is rather a benefit that should be shared freely by the community. Indigenous knowledge is furthermore a living system and its recording and dissemination to third parties is not always conducted within a clear ethical and legislative framework which ensures that the informants share in the benefits of the indigenous knowledge they have made available (Ngulube 2002). This leaves them wide open to exploitation by the unscrupulous.

In recent years there have been well-publicized cases of “bio-piracy”, in which companies or institutions in the developed world take out patents to exploit the indigenous knowledge held by communities (Lipinski & Britz, 2001). Critical questions that arise in these cases are whether the patent applicant can meet the criteria of novelty, non-obviousness and utility (Ganguli 2000, 45). A distinction has to be made between

appropriation of indigenous knowledge (e.g. exploiting existing genetic resources and gaining control on them through wrongfully granted patents) [and] those patentable inventions resulting in value added knowledge goods using the existing community knowledge base ... (Ganguli 2000, 48)

In simple terms, has the applicant actually invented something new, or has he/she simply recorded something that was already known to and utilized by a traditional community? A case in point is the patent for the use of turmeric in wound healing (US Patent 5401504) assigned to

the University of Mississippi Medical Centre. The Indian Council for Scientific successfully challenged this patent and Industrial Research after an extensive search of the literature turned up 32 references (scientific, religious, local history, and natural history) documenting the prior art. The granted patent was revoked on the basis that it lacked novelty. The case illustrates the importance of establishing relevant prior art, which may be difficult because traditional and ethnomedical practices are not commonly recorded in a comprehensive database (Ganguli 2000, 50).

Indigenous knowledge is not restricted to patentable material. Western researchers may record many other facets of indigenous community life. A current example is the collecting of political songs from traditional communities in Mozambique and Zimbabwe by the Centre for Political Song at Glasgow Caledonian University, Glasgow, Scotland. These communities are given an undertaking that the recorded material will not be used for commercial gain (Powles 2002).

Even if the material is not used for gain, there are further moral obligations. Muswazi (2001, 253) refers to materials held by the Swaziland Oral History Project at the University of the Witwatersrand, Johannesburg, South Africa, which "are not included in any of the formal records of indigenous knowledge resources maintained by LIS in Swaziland". The moral principles dealt with in the previous section on use of local resources and informants are also applicable here. The indigenous communities that have provided access to their knowledge need to be assured of continued access to it, and should receive fair compensation if it is commodified. Muswazi has further suggested the "comprehensive accessing, sharing and *unification* of indigenous *and external* knowledge systems [our emphases]". This implies the integration of indigenous knowledge and knowledge from external sources for the use of Swaziland communities. He identified a number of obstacles to this:

- The Swaziland library and information services (LIS) system does not provide adequate links to indigenous knowledge sources.
- Excessive emphasis by the LIS system on bibliographic records, mainly for external material.
- Insufficient use of multimedia technology (which is needed both to capture IK, e.g. dance, customs, cere-

monies, and to transmit knowledge to traditional communities where oral communication is favoured.)

- Lack of access to information and communications technologies by indigenous communities (Muswazi 2001, 253–254).

This illustrates the difficulties that impede the provision of access to indigenous knowledge within the country of origin itself, i.e. sharing the knowledge among communities. The knowledge may be more accessible in a foreign research institute than in a neighbouring community. It is clear that the current flow and control of indigenous knowledge (specifically in Africa) does not contribute to achieve the common good.

Because indigenous knowledge does not fit neatly into the Western framework of intellectual property, indigenous communities can expect little protection from intellectual property law. Hence legislation to control the exploitation of indigenous knowledge has been passed in a number of countries. In South Africa a draft bill on indigenous knowledge is expected to be released for comment soon.

### *The brain drain*

The "brain drain" or migration of well-educated African scholars and professionals to developed countries can also be seen as a significant South-North information flow. It is also a cause for moral and economic concerns. It has been suggested that the monetary value of this African export annually exceeds the value of all development aid received from developed countries. The phenomenon has generated much discussion in recent years, and there is no end to the horrifying statistics on the number of highly qualified persons lost to Africa through emigration. The following gives an indication of the scale of the migration:

Between 1960 and 1975 an estimated 27,000 highly qualified Africans left the continent for the West, according to a study by the Geneva-based intergovernmental body, the International Organization for Migration (IOM), and the UN's Economic Commission for Africa (ECA). This number increased to approximately 40,000 between 1975 and 1984, and then almost doubled by 1987, representing 30% of the highly skilled manpower stock. Africa lost 60,000 professionals (doctors, university lecturers, engineers, etc.) between 1985 and 1990, and has been losing an average of 20,000 [annually] ever since.

Another study by the World Bank reported that some 70,000 highly qualified African scholars and experts leave their home countries every year in order to work abroad, often in more developed countries. Africa spends an estimated US\$4bn annually on recruiting some 100,000 skilled expatriates (World Markets Research Centre 2002).

This represents an enormous flow of expertise from Africa, in particular expertise/knowledge and information on conditions and phenomena in Africa. Meyer, Kaplan and Charum (2001) point out that it is a normal phenomenon for scientists and engineers – or for that matter doctors and other professionals – to migrate to other countries to sharpen their skills and build their professional networks. They also point out that this form of “scientific nomadism” is more complex than it at first appears. For example, South Africa is losing health professionals to Canada and New Zealand, among other developed countries, but is also receiving health professionals from Cuba and skilled people of all kinds from many other African countries. However, the general trend is from poorer to wealthier countries. They comment:

The migration of skilled persons contributes to the sharpening of inequalities, both between countries and within countries, that is such a characteristic feature of globalisation. At the same time, those very inequalities as between countries, further promote and underpin the process of skill migration which responds to the growing skill wage gap as between the developed and developing world (Meyer, Kaplan & Charum 2001, 316).

The scale of the one-way flow is alarming and the brain drain puts a brake on Africa’s development. From a human rights perspective, individuals should be allowed to move freely to wherever they can exercise their professions and make a good living. Moreover, foreign experience favours academic and professional development. Those who have this opportunity, return more highly skilled and more useful – if they return. However, is it morally acceptable for countries such as Canada, the Netherlands and the United Kingdom to conduct recruitment campaigns in South Africa to attract well-qualified South African doctors while a desperate shortage of such personnel necessitates the recruitment of Cuban doctors in South Africa? The scale of the problem has led countries to take various measures. Eritrea, faced with the problem that many of its citizens who go abroad for post-graduate studies do not return,

has proposed the introduction of a US\$15,000 bond, the equivalent cost of two years’ post-graduate study, to guarantee their return (World Markets Research Centre 2002). In South Africa, newly graduated health professionals are required by law to perform two years’ community service, often in rural hospitals and clinics. This was motivated in part by the large numbers of newly qualified doctors and dentists who emigrate. There are limits to coercive measures. If it is expected from these professionals to make a contribution to their own country, governments have the moral obligation, as a form of contributive justice, to create favourable conditions for these skilled workers to stay. These are not merely salaries and working conditions, but also more general conditions such as freedom from crime, corruption and political repression.

Those who do not return have a moral responsibility to make their knowledge and expertise in one or another way accessible to their country of birth. Among the more creative measures taken in over 40 countries is the establishment of “intellectual diaspora networks” which generally aim to make use of the skills of their expatriates, tapping into their knowledge and skills so that they can contribute to the country’s development in various ways without necessarily returning permanently (Meyer, Kaplan & Charum 2001). In South Africa such a program, known as the South African Network of Skills Abroad (SANSA) has been instituted to build contact with expatriate South Africans and encourage them to continue contributing to South African development in various ways, without necessarily returning to their country (S.A. National Research Foundation 2002b). This recognizes that those who leave do not necessarily cut all ties with South Africa and remain a pool of skills that is potentially available to the country (Brown, Kaplan & Meyer 2001).

### *Conclusion*

In this article the current South-North flow of information and the effect that it has on the developing world has been explored. Six forms of South-North information flow have been analysed. The focus was specifically on Africa. The discussion was approached from an ethical perspective based on a specific moral framework.

In this article it has been illustrated that:

- There is still an imbalance in the South-North flow of information and it is not conducive to the creation of mutual understanding and sharing of knowledge to the benefit of all
- There have been some initiatives to accommodate South-generated information in the North, but these have in most cases been done without the consent of the South and is not based on fairness
- The South can make a valuable contribution to the worlds' body of knowledge
- There is a moral obligation to both the South and the North to create a fair and balanced flow of South-North information.

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