Sustainable development in the cultural context: a review of sources and analysis of gaps

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Social Science Libraries Section, Satellite Conference

Social Science Libraries: A Bridge to Knowledge for Sustainable Development

Biblioteca Nacional de Cuba José Martí, Havana, Cuba

8-10 August 2011

Sponsored by:

United Nations Educational, Scientific and Cultural Organization – Cuban Office
Biblioteca Nacional de Cuba José Martí
Springer Publishing
Center for Global Studies (CGS) at the University of Illinois
University of Illinois Library
International Federation of Library Associations

What is Culture?

In common parlance, culture is generally associated with forms of artistic expression (music and the arts) or with expressions of past lifeways seen in folkloric performances for tourists or nationalistic pageants. In anthropology, and in the sense intended in this discussion, culture is deeper and more pervasive. Culture is comprised of a complex web of meanings, relationships, beliefs and values that frames people's relationships to the world (UNESCO 2010). It involves all forms of expression, from the artistic to every day, and is manifested in the ways we walk, talk, and be in the world. Culture is inherently local, and is rooted in a particular place and historical trajectory of a distinct people, but is developed in interaction with other peoples and the global milieu.

What is Sustainable Development?

One of the most commonly cited definitions of sustainable development was presented in the 1987 Brundtland Report to the United Nations (United Nations General Assembly, 1987):

> *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."*

Sustainability is often conceptualized as the interaction between three overlapping spheres: environment, economy and society. Some see the social and economic spheres as being embedded within the constraints of the carrying capacity of the environment (IUCN/UNEP/WWF (1991), while others see the three as interacting spheres that affect each other through mutual feedback loops. Mckeown (2002) explains it thusly: "If you consider the three to be overlapping circles…the area of overlap in the center is human well-being. As the environment, society, and economy become more aligned, the area of overlap increases, and so does human well-being." This is an important corrective to the tendency to reduce sustainability to a purely environmental issue that can be addressed through technical or economic solutions alone. As Drexhage and Murphy (2010) note, "While sustainable

development is intended to encompass three pillars, over the past 20 years it has often been compartmentalized as an environmental issue. Added to this, and potentially more limiting for the sustainable development agenda, is the reigning orientation of development as purely economic growth." Indeed, the development community's focus on a Western conception of economic growth as its overriding goal has long been seen as problematic. For example, anthropologist Arturo Escobar   critiqued development in his landmark book, *Encountering Development* (1995), arguing that the singular model of progress is both paternalistic and extractive -- essentially a new form of colonialism. Escobar examines a number of development projects that displaced indigenous communities, disrupted people's habitats and occupations, and increased pressure on natural systems. He concludes that there is no universal model of economic or social development that can be objectively applied to the diverse local cultures misleadingly grouped as a single entity referred to as the "Third World" (or, in the current terminology, "Lesser Developed Countries").

More recently, many have put forward the idea that the cultural dimension is an essential fourth pillar of sustainability.   Hawkes (2001) contends that "Cultural vitality is as essential to a healthy and sustainable society as social equity, environmental responsibility and economic viability. In order for
public planning to be more effective, its methodology should include an integrated framework of cultural evaluation along similar lines to those being developed for social, environmental and economic impact assessment." The United Cities and Local Governments' *Agenda 21* <http://www.agenda21culture.net/index.php> proposes that "the protection, promotion and maintenance of cultural diversity are an essential requirement for sustainable development for the benefit of present and future generations."   Cultural diversity thus becomes a fundamental goal of sustainable development, essential to human well being, just as biological diversity is essential to a healthy environment. The Culture 21 group has proposed to make culture an organizing principle for the 2012 United Nations Conference on Sustainable Development in Rio De Jainero, Brazil. As a recent UNESCO (2010) publication asserts "Culture, in all its dimensions, is a fundamental component of sustainable development….a powerful contributor to economic

development, social stability and environmental protection. As a repository of knowledge, meanings and values that permeate all aspects of our lives, culture also defines the way human beings live and interact both at local and global scales." Sustaining the diversity of local cultures and lifeways, as a repository of meaning and knowledge, thus becomes a goal in itself, as well as a means to end.

Why Sustainable Development Projects Must be Culturally Grounded

Initiatives that seek to transform practice must make sense to the local community if they are to be sustainable -- they must become part of the way people think and act. A simple example are programs to introduce cleaner, more efficient cooking stoves. Cooking stoves are a large source of carbon emissions and deforestation. Inefficient or poorly vented stoves have adverse health effects, particularly on women and children. Limited access to scarce fuel affects the livelihood of many. Over 100 organizations are currently involved in the development of improved cooking stoves http://www.repp.org/. Many efficient and inexpensive stoves have been designed, but there is no single stove that works in every locale. As the Ashden Awards for Sustainable Design website explains "Programmes to introduce improved stoves are rarely successful unless they fit with the preferred local cooking practices. For example, in Latin America, many people prefer a Lorena or block style wood-stove as they prefer to cook standing up…In India, many people squat to cook, so the chula style is preferred…In parts of Africa, people tend to cook outside so prefer to use a jiko, a portable stove without a chimney." In most parts of the world, people cook alone or in small groups, but in Ethiopia, injera (the spongy pancake eaten with every meal) is cooked by women's cooperatives with as many as 50 women cooking side-by-side. In addition to cooking styles, the type of fuel available varies from place to place, and different cultural groups in the same region have distinct cooking styles. The stove design community has heeded the need to produce stoves that make sense for a particular local context, and nonprofit design groups such as Aprovecho Research Center and the Burn Design Group work closely with local communities. For a project in Guatemala, Aprovecho Research Center worked with a team of local craftsmen to test a variety of designs

and materials and brought in local cooks to try them out. As one engineers on the project explained, "Any fool can do technical things, but if people don't want it, don't bother" (Bilger 2009). The Aprovecho approach involves a deep collaboration that depends on indigenous knowledge as much as the technical expertise of the engineers: "Instead of exporting American know-how to the Third World…we would bring in villagers from Kenya or Lesotho… and [have them] teach us what they knew" (Bilger 2009).

Based on his work reviewing 68 development projects as a consultant for the World Bank, anthropologist Conrad Phillip Kottak, notes the importance of the cultural dimension to project success:

> Implicit in all the successful projects I examined was the goal of changing so as to maintain-preserve systems while making them work better. The successful projects respected, or at least did not work in opposition to, local cultural patterns… [and] incorporated indigenous cultural practices and social structures." (1990: 724)

Kottak (1990) also emphasizes the culture of the planners as an essential factor in the success of development projects. He contrasts the blueprint model, typical of the culture of planners, with a "learning-process" model (Korten 1980) in which planners and locals work together to develop approaches that are based on locally recognized needs and well-integrated with existing social structures. According to Kottak, a thorough socioeconomic and cultural study based on background research is as essential to successful planning, as is direct field observation and interaction during all stages of project development and follow-up assessment.

Resources for Culturally-Grounded Sustainable Development

Understanding local culture and practices is important to successful sustainable development, and it is important for anyone involved in development to become familiar with the local practices, social structures, and priorities of the group with which they are working. This is true not only for outsiders working in a new environment, but also for insiders who need to be consciously aware of the structures and systems in place in their own culture in order to successfully integrate new ideas and strategies into the existing order. It is also relevant to local

populations that want to be able to preserve and access their own traditional knowledge in the future.

In this section we will provide examples of resources for finding and using culturally grounded sustainable development information. Although there are many resources and web portals focused on development in general, our focus will be on key online resources that provide culturally grounded information that can be used for development and that are freely available on the Internet (though several key subscription resources will also be noted). The resources that we will highlight include: anthropological resources, research generated by developing countries, local news (sources of local voices), and indigenous knowledge. The resources detailed below are key illustrative examples, not an exhaustive list.

General Development Resources

There are many excellent websites that gather development related information. However, as our focus is on culturally grounded development resources, not on development resources in general, we will only touch on a few of the key general resources that will, by their inclusive nature, also include culturally grounded information. Most of these have sections that are organized by region or country and therefore may provide some access to a local perspective.

- **University of Sussex, Institute of Development Studies (IDS)**, supports two major online initiatives that provide information to development practitioners and students. They are two of the best development related online resources available.
  - **ELDIS** http://www.eldis.org/
    - Excellent web portal that provides access to a broad range of free publications/reports on development research, policy and practice from over 7500 development organizations – many generated from organizations within the country studied; organized by country and topic. [Note, another similar development database, Development Gateway's *Zunia* http://zunia.org/, is also useful.]
  - **BLDS - British Library of Development Studies** http://blds.ids.ac.uk/
    - Europe's largest research collection on economic and social change in developing countries. Their website's "E-Library" tab includes one of the most comprehensive lists of links to development related online resources (the links under the "Development" section are especially

useful). The "Subject Guides" and "Country Profiles" tabs link to searches in the BLDS library catalog that help identify useful books/articles you can request from your library (many local/regional sources are included).

- Gateways to regional development NGOs. These can help provide a local perspective to development work in a country. Two examples include:
  - o **Propoor** http://www.propoor.org/ web portal that provides information, resources and news about development work in South Asia; links thousands of NGOS across South Asia allowing them to share information.
  - o **CHOIKE** http://www.choike.org/ NGO directory portal dedicated to improving the visibility of the work done by NGOs and social movements from the South. A selection of materials produced by NGOs; in-depth reports on key issues, highlighting the position adopted by civil society on these issues.

- **Subscription resources:** these paid subscription databases provide access to articles, books, reports and grey literature from international governmental and non-governmental organizations and research institutes, including those from developing countries, and include information related to development. Although they are not free, they provide access to some materials that may be difficult to find elsewhere.
  - o **PAIS International (Public Affairs Information Service)** http://www.csa.com/factsheets/pais-set-c.php
  - o **CIAO (Columbia International Affairs Online)** http://www.ciaonet.org/

Anthropological Resources

Cultural anthropologists study cultural variation among humans and have a tradition of analyzing and documenting cultural practices by writing ethnographies. Ethnographies are first-hand, descriptive written accounts (usually a book or an article), produced through participant observation of a particular culture or group. They focus on that population, in place and time, with the goal of accurately describing that group and its practices. Ethnographies can cover everything from an ethnic group's kinship and food gathering patterns to how individuals negotiate change in a specific bureaucratic culture, as demonstrated by a work like Anders Gerhard's, *In the shadow of good governance: an ethnography of civil service reform in Africa*. Ethnographies are some of the most useful published works available about local cultural

practices. They offer a detailed window into the practices and lives of other groups. The information they provide is often invaluable and difficult to obtain from other sources. Accessing the anthropological literature and finding ethnographies can be somewhat challenging, as they are often not labeled as such. Some resources for finding ethnographies include:

- **Royal Anthropological Institute's (RAI) Anthropological Index Online (AIO)** http://aio.anthropology.org.uk/aio/ free (depending on specific conditions -- see http://aio.anthropology.org.uk/aio/conditions.html) index to the anthropological literature from 770 anthropology journals in 40 languages held in The Centre for Anthropology Library at the British Museum. Many of the materials found here will be ethnographies.
    - As AIO states on its website's introduction, "If you only want to follow the material being published in the main anthropology journals in the West you do not need AIO. If you are interested in scholarship and want to know, for example, what is the anthropological literature on a specific place or ethnic group then the AIO is still important. Only AIO (and its peers) gives researchers access to literature published by other researchers outside the academic metropolis."
    - This is only an index. Abstracts and full text are not included. You must obtain the content elsewhere (researchers in developing countries may be able to access the articles via the BLDS' and GDNet's document delivery service http://cloud2.gdnet.org/cms.php?id=blds_document_delivery_service)
    - NOTE: AIO is also accessible via the subscription database *Anthropology Plus*, which also includes Harvard's Tozzer Anthropology Library's subscription index, *Anthropological Literature*.

- **WORLDCAT** http://www.worldcat.org/ -- database of thousands of library catalog records
- **HATHITrust** http://www.hathitrust.org/ -- database of library catalog records, some full-text books, and searchable full-text of books not available for full-text viewing
- **Google Books** http://books.google.com/ -- index to books and access to some full-text books and previews of full-text

    These resources allow you to search many library collections and books at once and can help you identify book ethnographies. If the full-text of the book is not available online, you may be able to obtain the book with help from your local library.

The HATHITrust provides access to some full-text books as well as a "Full-text Search" box which, like GoogleBooks, allows you to search the contents of all its books even if the book's full-text itself is not accessible. If the full-text of the book is not available you will still see a list of the number of hits for your search terms within that book. This can get around the limits of searching only the keywords in a short bibliographic record and make your searches more effective. However, because your search will search every word in a text, it can also display many books that are not truly related to your topic.

Note that the term "ethnography" is not an official Library of Congress Subject Heading and therefore will not be included in bibliographic records unless it was included as part of an item's title or table of contents. Other Library of Congress Subject Headings that are sometimes associated with ethnographies include: "social life and customs," "ethnology," "case studies". However, many ethnographies do not include any of these terms in their descriptors and often there is no indication in the bibliographic record that the item is an ethnography. To identify works such as these, your best option is to search keywords for your culture/region and topic and then look through the records for items that seem as if they might be ethnographies. Some suggested search strings to help you identify ethnographies include:
  o *Ethnography country/region name*, e.g. *ethnography Kenya* – this would identify books that might have the word "ethnography" in the title or table of contents. Additionally, in a full-text search, it may help you to identify relevant titles that have "ethnography" somewhere in the text.
  o *Social life and customs country/region name*, e.g. *social life and customs Kenya* – note that this subject heading includes ethnographies, but is not limited to them.

Also remember to pay attention to publication dates, as older ethnographies may not be as relevant in a development context.

- **Websites with a focus on a specific culture –** include websites put together by researchers interested in a specific culture/group. Examples include:
  o **Center for Social Anthropology and Computing, CSAC Ethnographics Gallery, University of Kent at Canterbury** http://lucy.ukc.ac.uk/index.html
    ▪ **The Virtual Institute of Mambila Studies** http://lucy.ukc.ac.uk/dz/
    ▪ **Ethnobiology of Europe Website** http://anthrosciences.net/EthnobiologyOfEurope/index.html
    These provide links to ethnographic articles and information about these groups and topics.
  o **Faculty webpages**: anthropologists affiliated with a university often provide bibliographies of their work on their department websites. If you can identify anthropologists known for a specific regional focus, their websites may provide links to additional anthropologically related articles and books. One example is

Dr. Soraya Altorki's faculty webpage, with links to her books and articles about Arab women in Saudi Arabia and Egypt, http://www.aucegypt.edu/fac/Profiles/Pages/SorayaAltorki.aspx.

- **Subscription resources:**

  o **eHRAF Human Relations Area Files** (subscription) http://www.yale.edu/hraf/collections.htm full text ethnographies, coded and searchable by culture group, region and topic.
  o **Countries and their Cultures** (by Melvin & Carol Ember), (online subscription 4 volume encyclopedia, also available in print format) provides overviews of various culture groups and their practices; good for getting an understanding of a group with which you are not very familiar.
  o Various Areas Studies databases (subscription) – these provide access to the scholarly literature about a region. Many will include articles with an ethnographic approach or articles by researchers from a country/region. Examples include: HAPI (Latin America), Index Islamicus (countries in the Islamic world), Bibliography of Asian Studies (Asia), etc…. Most regions have a database that indexes the literature related to that area.

Research Generated by Developing Countries

Research and reports generated by local researchers and institutions also provide insight on local culture. This research can demonstrate the issues that local institutions and cultures consider priorities, document work that has been done in these areas, and provide a perspective on issues that research by non-locals cannot. However as Gray (2010) writes, research generated in developing countries is often marginalized and difficult to access. It is not part of the global North's commercial scholarly publishing culture and therefore is not included in the major research journals and indexes published there. One reason for this is that in many developing countries, the primary research output is technical reports, policy papers, and other modes of dissemination that are not included in the global North's hierarchy of valued research output (i.e. ranked scholarly journals). Gray also recounts the editor of *Lancet* (a highly ranked academic journal) "describing how if he chose to publish African authors this might reduce the citation impact of his journal. The most cited articles in medical journals… are

studies of randomised trials from rich countries and if he published African authors, these articles would score fewer citations." The *Lancet* editor goes on to lament that the current system creates incentives to marginalize the very research that could have the biggest impact on the parts of the world that need it most.

As Gray notes, several groups have been working to remedy this situation and rebalance the scholarly publishing models that currently marginalize and undervalue research generated in developing countries. These groups aim to create new systems of ranking journals as well as new avenues for disseminating and accessing research, many following the open access model. Examples of some of the major portals to research articles and repositories produced in the developing world include:

- **SciELO (Scientific Electronic Library Online)** http://www.scielo.org/index.php?lang=en as its website states, is "a model for cooperative electronic publishing of scientific journals on the Internet. Especially conceived to meet the scientific communication needs of developing countries, particularly in Latin America and the Caribbean [and also South Africa], it provides an efficient way to assure universal visibility and accessibility to their scientific literature, contributing to overcome the phenomena known as 'lost science'. In addition, the SciELO model comprises integrated procedures for the measurement of usage and impact of scientific journals."

  SciELO is an excellent open access database of approximately 900 journals (300,000+ articles) on a wide range of multidisciplinary subjects, with searching in English, Spanish and Portuguese. Provides full-text PDFs and abstracts as well as portals focused on specific countries and topics. Its citation impact measures are also excellent and meet a need not met by other resources. One of the most comprehensive, well-organized, and easy to use open access databases available.

- **GDNet (Global Development Network) Knowledgebase** http://cloud2.gdnet.org/cms.php?id=knowledge_base Created and formerly run by the World Bank, a free portal to development research produced in developing countries (includes over 16,900 research papers). Also sponsors programs to provide researchers from developing countries access to subscription journal databases, has a webpage with links to other free research portals, and provides a searchable database of policy research centers in developing countries. However, the website is a bit confusing and does not have as much content as, for example, SciELO, which only focuses on one region.

- **OpenDOAR (The Directory of Open Access Repositories)**
  http://www.opendoar.org/index.html
  List of academic OA repositories (that include ETDs (electronic theses and dissertations)) as well as institutional and research repositories. Helps you find repositories from countries in which you have an interest, e.g. 30+ African repositories are included; also has a Google custom search engine that allows you to search the contents of the repositories.

  However, there are many more repositories in developing countries that are not included. OpenDOAR is limited to the number of repositories that register with it. To find other repositories you may need to search the Internet. One example of the types of repositories that can be found in OpenDOAR is:

  - **Biblioteca Virtual de Ciencias Sociales de America Latina y el Caribe de CLASCO (Latin American Social Science Virtual Library)**
    http://www.biblioteca.clacso.edu.ar/   an example of the
     "an academic network of 153 social science research and teaching institutions in 21 countries of Latin America and the Caribbean. The Virtual Library provides open and free access to more than 4,000 full text books, periodical articles and other documents in Spanish, Portuguese and English." Also accessible via OpenDOAR.

- **DOAJ (Directory of Open Access Journals)** http://www.doaj.org/ provides access to open access journals from around the world. To find the journals published in a specific country, enter that country's name in the search box.

More narrowly focused, websites of local research institutions are also useful. One example, which is not included in OpenDOAR, and which demonstrates that if you are interested in research from a specific country, you may need to do an exhaustive search on the Internet to find it, is:

- **KIPPRA (Kenya Institute for Public Policy Research and Analysis)**
  http://www.kippra.org/
  Provides full text of reports, occasional papers and working papers written by the institute (look under the "resources" tab for publications and datasets).

Local News/Local Voices

Another way to gain insight into local culture and an understanding of local perspectives on issues is to read the local news and blogs generated in a country. Some examples of resources that help the researcher to identify and access this information are listed below.

If you do not speak the local language:

- **Global Voices - English** http://globalvoicesonline.org/ an international community of bloggers and translators who report on blogs and citizen media from around the world. Also have websites with articles translated into other languages:
- **Al-Bab, Best of the Arab Blogs** http://www.al-bab.com/arab/blogs.htm, English language blogs from around the Arab World (edited by the Guardian's Middle East Editor)
- **AllAfrica.com** http://allafrica.com/ (register and access current news; subscribe for archives/advanced search) aggregates news sources from around Africa
- **Subscription news sources**: there are numerous regional subscription news sources, examples include **Access World News** (from NewsBank) which provides full-text information and perspectives from over 600 U.S. and over 700 international sources and **Latin American Newsstand** (from Proquest) which includes recent issues of 41 Central and South American newspapers. Using the ProQuest interface translation features, articles can be translated from Spanish to English and English to Spanish.

Indigenous Knowledge

The United Nations Environment Programme (UNEP) defines indigenous knowledge [IK] as "the knowledge that … [a local] community accumulates over generations of living in a particular environment…. [it] encompasses all forms of knowledge – technologies, know-how skills, practices and beliefs – that enable the community to achieve stable livelihoods in their environment." The World Bank Group adds that "it is tacit knowledge and therefore difficult to codify, … embedded in community practices, institutions, relationships and rituals" and is "commonly held by communities rather than individuals." Indigenous knowledge is disappearing due to many factors such as the encroachment of modernization, the loss of elders, and the significant decline in emphasis on transmission of this knowledge to younger generations (IFLA Statement). Indigenous knowledge is extremely useful for culturally grounded sustainable development. It is important to the groups from which the knowledge originates, as well as for the rest of the world. Although some websites provide access to IK itself, most are introductions and overviews to IK in general (this is for a variety of reasons and is sometimes related to intellectual property issues).

- **WIPO Portal of Online Databases and Registries of Traditional Knowledge and Genetic Resources** http://www.wipo.int/tk/en/databases/tkportal/

- **Convention on Biological Diversity, Traditional Knowledge Information Portal** http://www.cbd.int/tk/about.shtml As stated on its website, "does not provide or document traditional knowledge per se …[but] focus[es on] information relevant to and about traditional knowledge."

- **UNESCO Natural Sciences Indigenous Peoples** http://www.unesco.org/new/en/natural-sciences/priority-areas/ Includes a section with links to information about different projects, books etc. – but is not a portal into the actual IK itself.

- **Russian Association of Indigenous Peoples of the North, Siberia and the Far East – IK in Disaster Management** http://www.raipon.org/ikdm/ Documents how indigenous people manage natural disasters. Includes database of transcripts of interviews conducted and provides researchers access to the actual data gathered. Although it provides excellent information, the database is still very small.

- **UNEP – United Nations Environment Programme**
  - **UNEP Indigenous Knowledge for Africa** http://www.unep.org/ik/default.asp?id=Home Overview of IK in a four African countries. However, the information provided is not in depth. The website appears to have been a prototype of a source that was never fully realized.
  - **UNEP Indigenous Peoples** http://www.unep.org/indigenous/relatedlinks/index.asp Includes links to IK projects – but, like many of the sites listed above, does not include much actual IK info.

Review of Gaps and Areas Where Libraries and Other Organizations Should Focus Further Efforts

Although websites and portals that provide access to development information, policy, news, and research continue to proliferate, there are still many gaps in the information that is available. First, related to websites and portals that currently exist, there are problems with uneven quality. Some websites, though they have the best intentions, can be frustrating to use. Many have broken links or links that lead to the wrong content. Some are poorly organized and the information they have is often difficult to find within the site. Another problem is the

limited amount of content on some sites. For various reasons some portals do not have much content, either a portal organization lost momentum and never developed their site as was hoped (or they do not have the resources to maintain the site they started), or, the portal has a very narrow focus and is only intended to provide access to a limited amount of content. These small pockets of information are problematic in that they scatter resources and focus and lead to a very diffuse information landscape, where the information is not linked to any larger resource and is difficult to discover. This can be very frustrating to researchers and makes doing research time consuming and inefficient, as many sources may be overlooked. For example, content provided by local research institutes or websites focused on a specific culture can get lost if they are not linked to larger organizations. This is why projects like OpenDOAR are so important – they help link small organizations and provide wider access to their content.

Additionally, small sites with limited content may wast energy re-inventing the wheel, expending resources to create infrastructure for their content when their resources might be better spent in other ways (i.e. getting more content online) if they were to join forces with others. This problem reflects a trend in development in general in which several groups or funding agencies tackle the same problem with varying degrees of success, scattering limited resources among competing initiatives. Initiatives such as SciELO are key to helping resolve this issue. SciELO is an excellent resource, well organized, easy to use, and already has a great deal of content. Helping to build and expand a program like SciELO's would be preferable to trying to start similar separate initiatives in other regions.

Another area where libraries can play a central role is expanding access to theses and dissertations in electronic format (ETDs). Theses and dissertations are key resources from developing countries and their content is currently extremely difficult to access. Although online open access to theses and dissertations is new even in developed countries, the need for online access in developing countries is even greater as ETDs provide a window to researchers around the world on the important work being done in the developing world. There are currently projects in South Africa and other countries to digitize and provide access to ETDs, but

working to expand similar programs and link them so that their content is not isolated should be a priority (e.g. through OpenDOAR and UNESCO's ETD Clearing House http://dbs.schule.de/db/institutions.html -- though this UNESCO site appears not to have been updated since 2003 and is not comprehensive (yet another example of an incomplete project left to linger) .

Similarly, more work needs to be done in the field of anthropology to make its research output accessible and open to others. Anthropologists have put forth the idea that their work should be accessible to the groups that they have studied. Following this notion, more concerted efforts towards making ethnographies and other anthropological resources more available should be pursued. The value of cultural perspectives in development work is acknowledged and anthropologist should do more to ensure that their work is seen and included in the international discourses around policy and development. Although there have been some efforts around this idea, they have been limited. Several anthropologists have worked to champion more open access to anthropological research, but until major organizations get behind the idea, it will be difficult to make progress. For example, the American Anthropological Association made the contents of two of its flagship journals open access, but only for issues from 1888-1973. While this provides a move towards openness, these articles are too old to be useful to development practitioners. Moving organizations that have a vested financial interest in restricting access to their content towards a more open model will be difficult. Perhaps university institutional repositories may be able to help solve this problem to some extent, by providing access to research articles produced by their own anthropologists, but only if faculty participate in the repositories.

Another issue relates to finding and utilizing indigenous knowledge [IK]. The United Nations, IFLA and other organizations have been working towards preserving indigenous knowledge, especially in an online format. Although there are a number of online IK portals, very few of them actually provide access to IK. Most seem to give an overview of IK in general, describe IK

related projects their organization has taken on in the past, or provide very limited information (again, the problem of the unfinished project or small, scattered projects).

In addition, much of the work done with indigenous knowledge is not online as the Internet is not the preferred method of access by local people. As Lwoga, Ngulube and Stillman wrote in their 2010 study of the transmission of IK in Tanzania, "…farmers are more likely to continue using face-to-face communication and probably radio and cell phones, while other advanced ICT, such as the Internet and email, will have low use. On the whole it is important to adapt and apply KM [knowledge management] approaches to manage IK and integrate it with other knowledge systems in the local communities." Therefore, although an online format would help to preserve IK and make it available to the world, currently, for those in the developing world, other forms of preservation and dissemination are more important. Many studies have shown that IK is disseminated more efficiently among local populations through personal networks and with some assistance from intermediaries such as extension officers.   This also means that for researchers interested in accessing IK in a specific locale, it may be necessary to go to these areas (and perhaps work with local organizations to

As demonstrated in this paper, there are many online sources that provide access to culturally grounded development resources and anyone interested in sustainable development should take advantage of them. However, there is still room for expanding and improving the types of information available.

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