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Challenges to Open Access in Teaching at University of Dar Es Salaam (UDSM)

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ABSTRACT :
This paper offers a perspective on some of the challenges experienced with respect to taking advantage of open access materials in Higher Education in developing countries with particular reference to University of Dar Es Salaam (UDSM). It is evident that the widespread awareness and understanding of open access concepts should lead to higher utilization of these academic resources and may lead to an increase of the quality of publication, research and the quality of teaching and learning. To this end, some countries have opted to adopt open access policies. However, the challenges between countries might differ based on several factors some of which are: the differences between the education systems as well as diversity in sources of funding support, with less direct involvement by national government. The author suggests that much more experimentation with business models, educational systems, is needed before we can well understand the sustainability of open access, the models that can effectively support it, and to what extent.

Key words: open access, policy, education, models.

I. INTRODUCTION

The global ICT industry growth never seems to decrease. New information and communication technologies (ICTs) are emerging very rapidly which impact the way we conduct our normal business and routine processes. Technological progress is so fast that basic ICT services may well become universal and pervasive even in poor societies. Moreover, proper management and utilization of ICTs is likely to improve our life standards. In the developing world, ICTs are presented as an opportunity to improve the livelihood of local communities benefiting from widespread access to hardware, connectivity and capacity building. Part of the efforts to bring ICTs to the developing world has been dedicated to strengthen the education systems in particular the way different publications and other information may be accessed or shared.

Only a small proportion of the information generated throughout the world is in the open access domain.

Majority of the world population cannot access the research findings from the developed nations, where most of the cutting edge research is being conducted, because of the financial constraints. At the same time, research conducted in third world countries representing 80% of the world's population is largely invisible to the global research community due to financial and governmental restraints. Yet, solving many of the world's problems like emerging infectious diseases, the HIV/AIDS epidemic, environmental disasters, or climate change cannot be achieved without the participation and incorporation of research conducted in developing countries as well. This has brought about the concept of Open Access whereby published academic papers, books, reports, and other periodicals that are electronically available to readers without financial or technological barriers.

II. UNDERSTANDING THE CONCEPT OF OPEN ACCESS

Peter Suber [1] characterizes the core concept of open access this way: open access removes "price barriers" (e.g., subscription fees) and "permission barriers" (e.g., copyright and licensing restrictions) to "royalty-free literature" (i.e., scholarly works created for free by authors), making them available with "minimal use restrictions" (e.g., author attribution). By "open access" to this paper, we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.

It should be noted that open access is rooted in existing copyright law: copyright owners permit users to freely access their works and grant them additional rights that remove permission barriers. Open access does not require that copyright laws change in order for it to exist [2]. In recent years, Open Access is becoming a movement in a few

countries. There are 761 registered Open Access repositories at the present time. In the Open archives, there are several million searchable records and are presented in a standard, interoperable, and searchable Open Access format.

III. THE TANZANIAN CONTEXT

In Tanzania, currently, major libraries only exist in urban areas and rural Tanzanians don't have access to the resources present in these large libraries. Open Access may remedy this problem by allowing socially and economically disadvantaged individuals and/or institutions to access all the information if there is a free internet connection. The Ministry of Science Technology and Higher Education (MSTHE) saw the gap and establish TERNET (2007) formerly known as TENET. Among other objectives TERNET intends to facilitate cheaper access to international information databases as a consortium as well as being able to negotiate for cheaper prices of PCs and selected proprietary software licenses. The network is expected to offer data base management services as well as the opportunity for the educational and research institutions to communicate easily at very limited costs [3].

IV. CHALLENGES FACING OA IN HIGHER EDUCATION INSTITUTIONS

According to the OPAL Report [4] "Beyond OER: Shifting Focus to Open Educational Practices," five barriers need to be overcome if educational institutions are to encourage use of OER:

1. Lack of institutional support
2. Lack of technological tools
3. Lack of skills and time of users
4. Lack of quality or fitness of OER
5. Personal issues (lack of trust and time)

The lack of awareness among potential users is foremost among several impeding factors to the growth of Open Access material in Tanzania in general, and the UDSM community in particular. UDSM faculty members, students and researchers need to become aware of the wide range of open access journals made available through various avenues, including the directory of open access journals (DOAJ) that provides access to over 2913 [5] free full text peer reviewed scholars.

The other challenge to making use of open access resources includes the broadband connectivity issues. According to the Tanzanian National ICT Policy [6], the limited international Internet bandwidth is scarce and extremely expensive. UDSM has increased its **bandwidth from 7.5 Mbps downlink and 1.5 Mbps uplink** to 1SMT [Contract between Sea Com and UDSM/UCC], which is considered to be   more than adequate for the purpose. Thus UDSM stand a very good chance to harness the benefit of Open Access by utilizing the current bandwidth which it possesses.

Insufficient government funding and the absence of helpful policies have further constrained Open Access's ability to reduce the cost and improve the quality of research and human development in Tanzania. The challenge, therefore, is to craft copyright systems that, on the one hand, improve access to existing materials and technologies and, on the other, stimulate and reward innovation and creativity by Africans themselves as a contribution to their sustainable economic, technological, social, political and cultural development. As Okediji [7] has put it: *the argument is that development interests require an effective system of protection, balanced by robust limitations to encourage competition and socially beneficial uses. Copyright protection should not be offered as an instrument of private monopoly at the expense of public welfare.*" The WSIS Declaration of Principles [8] also captured this well: "*Intellectual Property protection is important to encourage innovation and creativity in the Information Society; similarly, the wide dissemination, diffusion, and sharing of knowledge is important to encourage innovation and creativity. Facilitating meaningful participation by all in intellectual property issues and knowledge sharing through full awareness and capacity building is a fundamental part of an inclusive Information Society.*"

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available to all at no cost. Moreover strengthening TERNET should be considered among other factors for the institutes to have a network for sharing such resources.

In order to implement the Berlin Declaration, higher education institutions should implement a policy to: [2]

1. **require** their researchers to deposit a copy of all their published articles in an open access repository
2. **encourage** their researchers to publish their research articles in open access journals where a suitable journal exists (and provide the support to enable that to happen)

A major advantage of such repositories is that they provide a clear incentive for scholars to deposit their works so that they can not only have their work placed in prestigious journals, but also have that work disseminated and cited as widely as possible.

For now, subscription journals, while having the potential to increase access, are not yet a viable tool. However, the rise of free electronic journals provides an alternative mode of access, while maintaining the crucial peer review and filtering mechanism. Taking advantage of the freeing up of distribution channels and the lowering of production costs, scholars in different subject matter areas can collaborate to produce free electronic journals that provide the advantage of peer review without the subscription costs. This is a god end for librarians who can build their journal collections without having to purchase expensive journal subscriptions.

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