

Preamble

“Science knows no country, because **knowledge belongs to humanity** and it is the torch which illuminates the world”

[Louis Pasteur \(1822\)](#)

“Equal access to science is not only a social and ethical requirement for human development, but also essential for realizing the full potential of scientific communities worldwide and for orienting scientific progress towards meeting the needs of humankind.” UNESCO Declaration on Science and the Use of Scientific Knowledge Sec. 42) http://www.unesco.org/science/wcs/eng/declaration_e.htm

Synopsis

Information is a key to global equity and human well being, that can ultimately lead to peace. Access to and dissemination of locally generated research has proven to be challenging in LDC due to a number of socio-economic factors. Open Access (OA) to research results is possible through freely available ICT mechanisms. These opportunities are being capitalized on, but very slowly. For LDC to readily access these free resources, there needs to be more sharing of expert knowledge, guidance and technical support. Ultimately this will reduce the "North-South Gap".

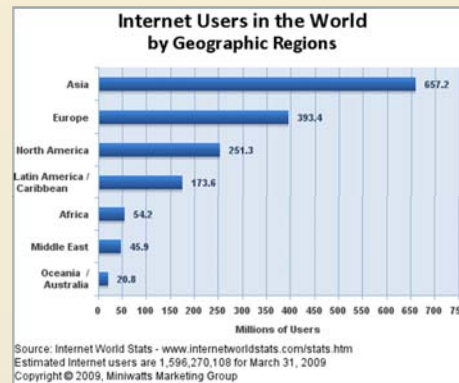
Access Restrictions

Journal costs, shortage of tools, lack of knowledge in use of ICT, lack of preparedness, difficulties in maintaining budgets when local currencies are constantly devalued against US\$ & £ - these factors all restrict information access. More than 50% of research institutions have no budget for journals. (*NEJM* v.350,pp966-8)

Title	Subs. cost US\$	Pub.
Tetrahedron (5)	\$35,708.00	Elb.
Nuclear Physics A-B(2)	\$26,368.00	Elb.
Physica A-E: (5)	\$25,942.00	Elb.
Nac. Inst.&Mols Phy. Res.(2)	\$23,413.00	Elb.
J. Comparative Neurology:	\$23,004.00	Wil
Surface Science (3)	\$22,652.00	Elb.
Hin in Research (4)	\$22,126.00	Elb.
Physica Letten (3)	\$19,507.00	Elb.
Biochim. et Biophys. Acta (9)	\$18,145.00	Elb.
J. Chromatography (2)	\$17,653.00	Elb.
Total subscriptions	\$234,518.00	
Elsevier income for half of 2005, £2,368 mil		

WHO Efforts Hampered by Publishers

Internet penetration is very low in LDC. As such, the WHO initiative, HINARI, which provides health researchers in LDC internet access to over 4000 journals is not as effective as it could be. In Africa, where HINARI is available, internet penetration is only 5% of the population - with health research being only a subset of this population. Most LDC pay US\$1000 subscription for HINARI. Yet, major publishers who are contributing to HINARI deny access to their journals for LDC, which subscribe to even a few titles, for fear of losing subscription income.



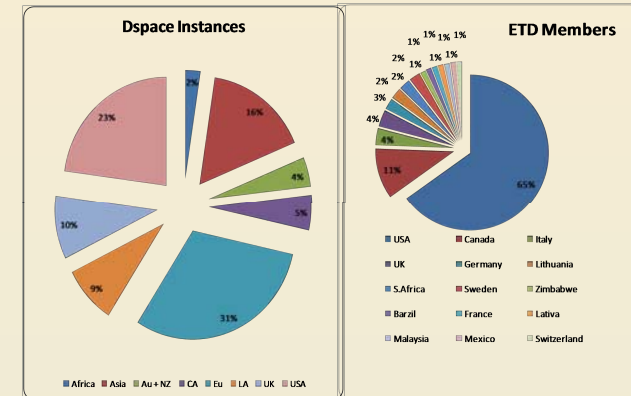
Research Output Restrictions

90% of communicable & preventable diseases exist in LDC. Digital divide, 10/90 research funding, editorial bias, institutional racism, language barriers, brain drain, cultural political and ethnic conflicts, the lack of resources, administrative support, opportunities, publishing options and ICT capabilities contributes to the lack of visible research output from LDC. Without any research data, intervention for prevention of these diseases is impossible. MEDLINE, the major index to health sciences indexes more than 3000 journals, but 95% of the journals are from the developed world.

Present Conditions Favour Improvement

Internet usage has increased globally (from 16 million in 1995 to 1,596 million in 2009). ICT facilitates faster, cheaper communication. Donor agencies provide funding to LDC to improve research and freeware is available for journal publishing, OA journals, Institutional Repositories, electronic theses & dissertations. But these are not harnessed systematically in LDC

LDC Participation in OA



Fast Forwarding Progress

LDC must act to get funding to improve ICT infrastructure, build up a cadre of people to promote and improve research and OA. Meetings such as ETD2009 facilitate North-South partnerships for research, guidance and technical support in designing suitable platforms for information dissemination from the within the South and globally. LDC conditions are complex and intertwined with socio-economic and political issues. However, with effort, some progress can be made when North-South meets on common ground supporting and promoting OA.