K4D[1] relevant Indicators for Universities

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Information on Tertiary Education and Training

Dr. Uswatte-aratchi in his plenary address talked about markets in tertiary education. Markets are good because they permit choice to the consumer and choice is the essence of liberty. In order to make markets work, we need (a) suppliers (b) consumers with the purchasing power and (c) information about the products.

The country reports described the state of higher education in four countries in Asia and some references to data collection efforts in those countries. The country reports are presented by Dr. Catherine (Caren) Castañeda, Director for Programs and Standards at the Commission on Higher Education In Philippines, Dr. Imran Ho Abdullah, Associate Professor and Director of The Center for Academic Development in the University Kebangsaan, Malaysia , Dr. Mobasser Monem, Associate Professor of Public Administration, University of Dhaka, Bangladesh, and our own, Dr. Colin Pieris, representing the Quality Assurance and Accreditation Council of Sri Lanka.

Although country papers give us details of each higher education system there are only a few resources that compare higher education institutions against common standards.

Table 1 Sources of comparative data on higher education

International

International Association of Universities directory (IAU)
Commonwealth Universities Year Book
Top 500 World Universities by the Shanghai Jiao Tong University (SJTU)
Top 200 World Universities by The Times Higher Education Supplement of UK (THES)
Asiaweek Survey of Universities Survey (now defunct; last survey in 2000)
Competitiveness indicators, by country (IMD and World Economic Forum, respectively)

National

Times Good University Guide, UK
Guardian University Guide, UK,
Good Universities Guides, Australia
America's Best Colleges by US News and World Report (USNWR)
Top 10 Colleges of India for five fields of Study* by India Today
Canada's Top Schools by Macleans

[1] K4D is the popular acronym for 'Knowledge for Development'

These sources present data on some of all of the following measures.

Table 2 Measures of academic program/university performance

INPUTS Undergraduate Student Selectivity Faculty Quality-qualifications/rank Faculty Quality-research Facilities, resources and services	PROCESSES Teaching Assessment score Student retention rates OUTPUTS Student success – graduation rate Student success – employment rate Student satisfaction – alumni giving rate Recognition by peers – Peer survey rating

None of the existing surveys give sufficient comparable information to assess these academic programs, directly or indirectly, in terms of their ability to make their knowledge products more relevant to development. In other words, in the context of the developing world, do our academic programs contribute innovations in products and services that create jobs for people and put money in people pockets? Can they?

When I first approached IDRC with a proposal to develop indicators for education markets in Asia, they were less than keen. Yes, better information would make the higher education markets work better. With more competition among institutions the quality would improve. Governments may assist those without purchasing power to enter the market, and make tertiary education more equitable etc., but will that make developing countries any better off?

Universities and Development

Sadly, in countries like Sri Lanka economic growth has come from sectors such garments and tourism etc. where university credentials or scholarly outputs has had very little to do with productivity.

There are attempts to make university *education* more relevant. These attempts involve systemic changes in higher education systems. For example, the World Bank funded project to improve the quality and relevance of undergraduate education (IRQUE) in Sri Lanka covers all aspects of higher education reform.

These are endeavors that require changes across the higher education systems. Higher education systems are not islands. They are affected by norms of behavior in the larger society. Bringing about systemic changes in higher education or any sphere is a very difficult task in societies plagued with problems of underdevelopment and associated behaviors.

Attempts to make university *research* more relevant typically envisage some sort of formal interaction between universities and industry. As Sutz (2005) remarked:

> To increase their contribution to development through the production and distribution of knowledge, universities in developing countries need to transform themselves into 'developmental universities'. But to achieve this, other

> participants, such as industry and government, must be also be prepared to take on new responsibilities. No ready-made model exists to guide these changes; they will require both creativity and the willingness to engage in thoughtful dialogue, both within and outside universities (Judith Sutz, scidev.org, April 2005)

Where does one find these beings that are creative, thoughtful etc.? Each of us would be tempted to say 'not in my neighborhood'.

K4D relevant indicators

For answers we turn to the Internet. The Internet has become a powerful medium through which individuals and organizations connect with each other crossing geographical, organizational and time barriers. Your results from a small research project may not seem like something your library would archive but if you post your research or an abstract of your research, somebody somewhere at some point of time with a need for it has access to it. The knowledge to development process is too complex to be defined by technology transfer agreements and the like. A necessary condition for applying knowledge to development is to make that knowledge known. "If a tree falls in the forest and no one hears it, does it make a sound?" [2] If your work is not accessible to those who may need it, does it matter that you did the work or not?

Web Presence as a K4D indicator

Web presence as a necessary condition for K4D is beginning to be appreciated. In a recent article Katz and Cothey (2006) described a computational method to measure the Web presence of Universities more accurately. Their article was titled "Web Indicators for Complex Innovation Systems". There are others who have talked about the importance of Web presence but our own work on the Web presence of telecom policy researchers[3] could be one of the first empirical studies of individual researchers.

Web Presence by Industry Sector

Internet presence by itself can be a cumbersome measure because an Internet search for engineering at University of Kebangsaan Malaysia, for example, can give so many 'hits'. But if we were to search for scholarly outputs on engineering aspects of disaster management, say, the searching would become more manageable. More targeted search tools such as scholar.google.com are beginning to make Web searches more meaningful. In addition, by searching in terms of a specific application, you put the emphasis on the application not the academic program.

What we propose is then is something quite different from the typical higher education survey where you begin with the academic program or institution as the focus. What we propose is an approach where you begin with the sectors or sub sectors that are more important for reasons that are economic, social or cultural. Then we apply new Web presence measures and some or all of the existing measures to ask not whether universities are performing for their own sake, but whether one or more industry sectors are performing well because of universities.

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[2] Attributed to Bishop George Berkeley (1685-1753)

[3] Sujata Gamage and Rohan Samarajiva. From Capacity to Presence: Enhancing the Usability of University Research in the Internet Age. In Press. Information Technology and International Development, MIT Press (available at www.lirneasia.net/document)

Table 2 Performance of 'University X', say, with respect to the Industry Sector Y, say (Ideally the measures should be selected in consultation with the sector concerned)

INPUTS	PROCESSES
Undergraduate Student Selectivity- Faculty Quality-*qualifications/rank* Faculty Quality-*research* Faculty Presence- *on the Web* Quality of the presence-*citations to the presence* Relevance of the presence-*rating by stakeholders* Facilities, resources and services -	Teaching - *Teaching Assessment score* General-*Student retention rates* OUTPUTS Student success – *graduation rate* Student success – *employment rate* Student satisfaction – *alumni giving rate* Student quality- *Peer survey rating* Student quality- *industry sector rating*

Action research project (a concise proposal)

How realistic are these Web presence measures? We propose a set of action research projects to further develop, apply and test Web presence measures as we collect data on traditional measures.

Specifically, we propose to work with a selected set of sectors such as tourism, a sub sector of agro technology or ICT, and:

1. Develop an information system that provides adequate information for students, parents and employers about the *credentials* relevant to the selected sectors that are offered by universities in the selected countries.

2. Assist *researchers* who are doing sector-relevant research to document their work as scholarly papers or research reports.

3. Increase the 'presence' of above researchers and their research in the Internet by assisting them to archive their research outputs (or abstracts of those) on the Web

4. Increase the awareness of innovators in the selected sectors to the Internet presence of researchers

5. Work with national foundation for research and relevant post-graduate institutes, national research institutes and businesses to secure funding for further research in the selected sectors

6. Identify means of making above K4D activities self-sustainable or even redundant.