Afr. J. Lib. Arch. & Inf. Sc. Vol.23, No. 2 (2013) 105-112

Viewing Higher Education Information Literacy through the African Context Lens

Jaya Raju
Library and Information Studies Centre
University of Cape Town, South Africa
jaya.raju@uct.ac.za

Abstract

Established models of information literacy education (ILE) which are contextually grounded in Western social and intellectual structures fail to take into account local African contexts. This article argues that in a developing context, the traditional definition of information literacy needs to be adjusted to include an understanding of when information can be used to improve everyday living or to contribute to the solving of problems related to particular situations. This paper adapts cultural contextuality model in ILE to explore considerations for the design of ILE for the African developing context and based on this, proposes possible learning outcomes for ILE in the African higher education context.

Keywords

Information Literacy Education, Higher Education, Africa, African Development

Introduction

Dorner and Gorman (2006) claimed that for information literacy education *(*ILE) to be meaningfully embedded in the educational fabric of a developing country …", "…it is important to take account of a range of contextual variables…". One must understand the impact of local culture on learning in general and information literacy in particular." (Dorner and Gorman, 2011). Higher education ILE, in whatever form needs to take cognisance of the African developing context and address issues related to societal development and individual empowerment.

Dorner and Gorman (2006) have argued that "the prevailing models of information literacy education are contextually grounded in Western social and intellectual structures". For precisely this reason, the author argues, they fail to take into account local African contexts such as: the critical role played by indigenous knowledge as a knowledge and information resource in the lives of the masses in Africa and the importance of awareness information, for example, the need for good nutrition to eradicate infant mortality, that abstinence or protected sex reduces the spread of HIV/Aids, and other information required for everyday survival. It is the "lack of knowledge and lack of awareness" resulting in part from on-going information illiteracy that affects "all aspects of society, including such basic needs as health and nutrition, housing, clean water, a fair income, and so on" (Dorner and Gorman, 2011). Ogunsola et al. (2011) stress that higher education information literacy is "crucial to national and personal development" and that in Africa it is a "major route to overcoming poverty, hunger and disease…". Dorner and Gorman (2008, 2011) postulate that in a developing context, the traditional definition of information literacy (IL) needs to be adjusted to include "understanding when information can be used to improve…daily living or to contribute to the resolution of needs related to specific situations." While the traditional definition of IL may be regarded as technically and pedagogically faultless, it does have limitations for developing contexts such as those in Africa.

The purpose of this article is to, via a conceptual approach, adapt Dorner and Gorman's 'cultural contextuality' model (2006; 2008:2011) in ILE so as to explore considerations for the design of ILE for

the African developing context and based on this, propose possible learning outcomes for ILE in the African higher education (HE) context. This is prefaced by an examination of the Western model of ILE and its limitations in the African developing context.

The Western Model of Information Literacy Education

Higher education information literacy education (ILE) in many parts of the world (including the developing world) has been largely based on the traditional definition of IL developed in the Western world that states:

> Information literacy is set of abilities requiring individuals to recognise when information is needed and [to] have the ability to locate, evaluate and use effectively the needed information (Association of College and Research Libraries (ACRL), 2000).

On a technical and pedagogical level, this definition cannot be faulted. As Dorner and Gorman (2006) point out, IL is no doubt a set of abilities and the concept of information literacy revolves around an information need. The pedagogical outcomes are also clear, that is, to locate, to evaluate and to use, and conform appropriately with Bloom's classic *Taxonomy of Educational Objectives* (Centre for Teaching and Learning, University of North Carolina at Charlotte, 2012) which presents six levels in the cognitive process. This has historically provided the pedagogical framework for most ILE programmes. Accordingly, Bloom's cognitive hierarchy has been the basis of Eisenberg and Berkowitz's (1990) famous "Big Six" skills approach to library and information skills instruction. This is universally used to teach information literacy: task definition (arising from the information need), information search strategies, location and access, use of information; synthesis and evaluation.

Despite these enduring frameworks, which have been pedagogically tried and tested over the years and which have lent credibility to the widely accepted traditional definitions of IL, there have been those who have identified inherent limitations and constraints in these definitions, particularly for developing contexts such as those in Africa.

Limitations of the Western Model of Information Literacy Education in the African Developing Context

Simmons (2005) has challenged the traditional definition of IL by pointing out that "it lacks a critical element" and therefore argues that "helping students to examine and question the social, economic and political context for the production and consumption of information is a vital corollary to teaching the skills of information literacy." Dorner and Gorman (2006) corroborate this by pointing out that "information does indeed exist in a context, and not to understand that is ultimately not to understand information, and thereby fail to use it effectively in knowledge generation."They go on to implode a fallacy among many information professionals that information literacy is about the technical task of collecting information. Dorner and Gorman (2006) see this as being analogous to an aero-plane mechanic collecting pieces of a jet engine and placing them in neat rows. This, for them, does not make a workable jet engine – it is learning how to fit the pieces together that makes a workable engine. Similarly, they argue:

> "It is the construction of meaning from information that has true value … and this is what information literacy must do if it is to be effective, most especially in developing countries, where information is increasingly recognised as a key tool for development" (Dorner and Gorman, 2006).

This critical and constructivist approach, rather than a positivist epistemological view of information (inherent in the Association of College and Research Libraries (ACRL) definition cited earlier), is what will convert information to knowledge in our characteristically post-modern information environment. Hence, Simmons (2005) appeals that in ILE "facilitating students' understanding that they can be participants in scholarly conversations encourages them to think of research not as a task of collecting information but instead as a task of constructing meaning". This clearly resonates with what South Africa's Jonathan Jansen, a respected

higher education specialist and analyst, terms "critical pedagogy" which he uses to emphasise that "theoretical work" can take "its critical meaning from the context in which education was [*sic*] practised" (Jansen, 2009).

The ACRL definition, widely accepted in Western countries as a standard guide to what is meant by "information literacy" (Dorner and Gorman, 2006), explains IL as a set of measurable skills (including to locate, evaluate, use). Noorgaard (2004) cautions that in such a model there is the risk of information literacy being "reduced to a neutral, technological skill that is seen as merely functional or performative". Instead of this functional approach, argues the author, IL education should rather assume a "critical pedagogy" mantle and teach HE students how to qualitatively integrate and evaluate information within complex sites of practice and communication structures, thus imparting to them skills in knowledge construction, a key HE imperative. Likewise, Noorgaard (2004) denounces the "skills-based paradigm that surely continues to haunt information literacy" and calls for IL to be "conceived of as a process-oriented literacy" which would locate it in a "better position to communicate its inherent intellectual vitality and larger social and ethical relevance".

It is this "social and ethical relevance" that has serious implications for the African development context. Knowledge emanating as a social construct of 'process-oriented information literacy' has a critical role to play in the African growth, development and innovation continuum. Knowledge is a key strategic resource and lifeline for sustainable development in Africa (Ahmed, 2007). Shanbhag (2006) emphasises that knowledge may be produced when ordinary people make sense of their world and that this knowledge is based on their experiences as they construct methods and processes to cope with situations facing them. While developed countries have made advances in achieving their Millennium Development Goals (MDGs), a large number of developing countries, particularly in Africa, have not even got out of their starting blocks – they are plagued by poverty and hunger, high death rates due to disease, poor education systems, high infant mortality rates, the HIV/Aids pandemic, ethnic conflicts, high debt burdens and weak governance structures often gripped by corruption (Forsyth, 2005; Casal, 2007). In such a context, access to information/ knowledge is critical, especially for young people, and hence higher education ILE models in Africa need to be conceptualised to include the "social and ethical relevance" which Noorgaard (2004) refers to.

While the scholars of IL (Breivik and Gee (1989); Eisenberg and Berkowitz (1990); Kuhlthau (1991); and others) no doubt had noble intentions when they expounded their theories and over the decades significantly influenced ILE all over the world, the reality is that their theories have been grounded in Western social and intellectual structures and, not surprisingly, show 'fault-lines' when applied particularly to developing contexts. Their 'objectifying' of information has been criticised by Luke and Kapitzke (1999:483) who claim that it has allowed information literacy educators to ignore the social construction and cultural authority of knowledge, the political economies of knowledge ownership and control, and the development of local communities' and cultures' capacities to critique and construct knowledge.

If one broadly views culture, as this paper does, as a system of knowledge shared via social learning by a group of people usually located in a particular geographic area, then information and culture cannot be separated. Yeh (2007), in studying the information behaviour of Taiwanese aboriginal tribes, relevantly observes that information is "not processed objectively but rather interpreted through expectations about life experience." It is embedded in the fabric of a people's daily life and constructed through participation in life's daily activities, personal or work related. Information in the context of this broad notion of culture has implications for the developing societies of Africa. It for this reason that Dorner and Gorman (2006, 2011) advocate that the very functional, reductionist and skills-based traditional definitions of information literacy need to be operationalised to include robust qualitative aspects so that ILE, particularly in developing contexts where information is key to development, can teach individuals to recognise the social construction and cultural authority of knowledge. According to Dorner and Gorman (2006), ILE models based on this more robust definition of IL must make individuals intimately familiar with the political economy of knowledge ownership and control, and this will determine their ability to access and understand information/

knowledge throughout life…information literacy in developing countries in particular must involve the development of capacity within local communities and local cultures to critique existing knowledge found by means of effective information literacy and to construct new knowledge on the basis of this critique.

Hence Dorner and Gorman (2006) propose the following operational definitions of IL for developing contexts, the ability of individuals or group to:

- be aware of why, how and by whom information is created, communicated and controlled, and how it contributes to the construction of knowledge.
- understand when information can be used to improve their daily living or to contribute to the resolution of needs related to specific situations, such as at work or school.
- know how to locate information and to critique its relevance and appropriateness to their context.
- understand how to integrate relevant and appropriate information with what they already know to construct new knowledge that increases their capacity to improve their daily living or to resolve needs related to specific situations that have arisen.

Intehration of 'Cultural Contextuality' into Information Literacy Education

Dorner and Gorman's (2006, 2008, 2011) context-based and constructivist approach to IL, and hence to ILE, goes on to delve into the pedagogical difficulties of using Bloom's cognitive hierarchy as a rigid template for developing information literacy educational taxonomies grounded in local cultural understandings, by comparing learning styles in different cultural contexts. This, however, is not the focus of this article. Rather, it draws from this useful 'cultural contextuality' emphasis to explore considerations for the design of ILE for the African development context.

Earlier, the author pointed out that ILE models grounded in Western contexts fail to take into account local African realities such as the critical role of indigenous knowledge as a knowledge and information resource in the lives of the masses in Africa; or for that matter, the importance of awareness information, for example, the need for good nutrition to eradicate infant mortality, that abstinence or protected sex reduces the spread of HIV/Aids, the importance of irrigation for healthy crop growth, and other information required for everyday survival – issues that are largely irrelevant to developed contexts. Dorner and Gorman (2008, 2011) themselves emphasise the role of indigenous knowledge (local knowledge that is unique to a particular culture or society) in teaching and learning contexts. They posit that students are able to learn more deeply from practice or real life, citing as an example a geography teacher in a rural school in Laos (southeast Asia) incorporating forest conservation into his teaching and learning as students can learn from elders in the community about how to conserve the forest. Similarly, moral behaviour (reciprocal teacher-student respect, respect for each other, respect for the environment, etc.) is taught by bringing traditional Lao culture into the classroom. Hence, when assisting students to understand IL and when developing ILE, educators and librarians in the African context need to "realise the vital importance of understanding the local context" (Dorner and Gorman, 2008, 2011). It is necessary to creatively incorporate Africa's rich indigenous cultures into teaching and learning content and methods – for example, teaching methods incorporating the collectivist (as opposed to individualistic) nature of many African societies. Dorner and Gorman (2008; 2011) claim that an ILE programme sensitive to these considerations would lead to growth in self-confidence of teachers and/or librarians, as well as the students which in turn would lead to critical thinking and then to independent thinking. Increased innovation, the result of improved problem solving, they explain, would "lead to national development and improved living conditions for individuals and the country as a whole" – the 'twin notions' of societal development and individual empowerment referred to at the outset of this article as being key to policy statements for African development.

This article proposes a model for ILE that draws from the strengths of the Western model of ILE (the value of these should not be denied) but which also, drawing from Dorner and Gorman's context-based definition (2006), incorporates, for local African societal development and individual

empowerment, concepts relating to:

- understanding the political economy of knowledge ownership and control so as to be able to access and understand information/ knowledge and its contribution to the social construction of knowledge;
- understanding when information can be used to improve everyday living or to finding solutions to specific situations;
- developing capacity within local communities and cultures to be able to critique the contextual relevance and appropriateness of knowledge that has been accessed and based on this, to construct new knowledge that may be used to improve daily living and resolve problems related to specific situations.

Mokhtar et al. (2009), interrogating the relevance of ILE in Singapore, appeal that the IL curriculum package cannot simply adopt the existing IL standards that have been used in various developed countries such as the US, UK or Australia, without considering the unique multi-ethnic and multi-cultural setting of Singapore.

They too believe that Eisenberg and Berkowitz's (1990) "Big Six" ILE model is short on the "social and ethical relevance" of IL, which Noorgaard (2004) poignantly referred to, as well as other aspects relevant to the Singapore context; and proceed to present an ILE model (Mokhtar et al. 2009) that takes into account contextual variables.

Learning Outcomes for ILE in the African Higher Education Context

The need in the African developing context to balance learning outcomes associated with 'traditional' IL competencies with those that speak to context-based IL competencies. It is shown in the table. It is such an active interaction of positivist and constructivist epistemologies in the learning outcomes that is likely to ensure that African higher education ILE makes a meaningful contribution to the 'twin notions' of African societal development and individual empowerment referred to earlier. In recognising that within Africa itself there are many contextual differences, it is hoped that what is presented in this article would serve as a basic framework to guide the design of ILE oriented to local contextual variables in the different African contexts.

Table 1: Learning outcomes for ILE in the African HE context

Learning outcomes for 'traditional' IL competencies (positivist orientation)	**Learning outcomes for context-based IL competencies (constructivist orientation)**
The student is able to: • identify an information need and the extent of this need related to the defined task, • adopt strategies (including ICT related strategies) to search for potential sources of the information required, • locate information sources (print, electronic, or otherwise) as well as access the required information, efficiently and effectively, • select and evaluate information content for the defined task, • extract, organise/restructure, and create new information/knowledge, • understand the legal and ethical issues related to information use and is able to use the information responsibly; and • critically evaluate the information search process, as well as the end product .	The student, in a particular African context, is able to: • analyse why, how and by whom information is created, communicated and controlled, and how it contributes to the construction of knowledge in that context, • find out when information can be used to improve daily living or to contribute to the resolution of problems related to specific situations, • critique the relevance and appropriateness of located information to that particular context; and • integrate relevant and appropriate information into an existing knowledge base to construct new knowledge that leads to increased capacity to improve daily living or to contribute to the resolution of problems related to specific situations.

Conclusion

This article has drawn from Dorner and Gorman's 'cultural contextuality' model (2006; 2008; 2011) in ILE to learning outcomes for higher education ILE in the African developing context. There is no doubt that there are limitations of the traditional Western grown model of ILE for the African developing context, but this does not deny the inherent values of the 'traditional' IL competencies. Rather, what is proposed here enriches the application of 'traditional' IL competencies to the African developing context by complementing them with context-based IL competencies to produce a rich mix of positivist and constructivist learning outcomes so that African higher education ILE may meaningfully contribute to African societal development and individual empowerment. It is hoped that what is proposed in this article would set in motion field research delving into specific cultural contexts in Africa so that concrete case studies, as Dorner and Gorman (2006; 2008; 2011; 2012) have done in the Asian region, would reveal more grounded theory relating to higher education ILE in the African developing context.

References

Ahmed, A. 2007. Open Access towards Bridging the Digital Divide: Policies and Strategies for Developing Countries. *Information Technology for Development*, 13(4) 337-361

Association of College and Research Libraries (ACRL). 2000. Information Literacy Competency Standards for Higher Education. Http://Www.Ala.Org/Acrl/Standards/Informationliteracycompetency. Accessed 1 July 2012.

Breivik, P.S. And Gee, E.G. 1989. *Information Literacy: Revolution in the Library,* New York: Macmillan.

Casal, C.R. 2007. ICT for Education and Development, *Info*, 9(4): 309 Center for Teaching and Learning, University of North Carolina at Charlotte. 2012. Bloom's Taxonomy of Educational Objectives. Http://Teaching.Uncc.Edu/Articles-Books/Best-Practice-Articles/Goals-Objectives/Blooms-Taxonomy-Educational-Objectives. Accessed 5 July 2012.

Dorner, D.G. and Gorman, G.E. 2006. Information Literacy Education in Asian Developing Countries: Cultural Factors Affecting Curriculum Development and Programme Delivery. *IFLA Journal*, 32 (4): 281-293. Http://Ifl.Sagepub.Com/Content/32/4/281. Accessed 26 September 2011.

Dorner, D.G. and Gorman, G.E. 2008. Indigenous Knowledge and the Role of Information Literacy Education. Paper Presented at the World Library and Information Congress: 74th IFLA General Conference and Council, 20-14 August 2008, Québec, Canada. Http://Archive.Ifla.Org/Iv/Ifla74/Papers/090-Dorner-En.Pdf. Accessed 4 October 2011.

Dorner, D.G. and Gorman, G.E. 2011. Contextual Factors Affecting Learning in Laos And The Implications for Information Literacy Education. *Information Research*, 16(2). Http://Informationr.Net/Ir/16-2/Paper479.Html. Accessed 29 December 2012.

Dorner, D.G., Gorman, G.E. and Gaston, N.M. 2012. Developing Contextual Perceptions of Information Literacy and Information Literacy Education in the Asian Region. In: Spink, A. and Singh, D. (Eds.). *Library and Information Science Trends and Research: Asia-Oceania Region*. Emerald, Pp. 151-172

Eisenberg, M.B. and Berkowitz, R.E. 1990. *Information Problem-Solving: The Big Six Skills Approach to Library & Information Skills Instruction*. Norwood, N.J.: Ablex Publishing

Forsyth, E. 2005. Public Libraries and the Millennium Development Goals. *IFLA Journal*, 31(4) 315-323

Jansen, J.D. 2009. *Knowledge in the Blood: Confronting Race and the Apartheid Past*. Cape Town: UCT Press.

Kuhlthau, C.C. 1991. Inside the Search Process:

Information Seeking from the User's Perspective. *Journal of the American Society for Information Science*, 42(5): 361-371

Luke, A. And Kapitzke, C. 1999. Literacies and Libraries: Archives and Cybraries. *Curriculum Studies*, 7(3) 467-491

Mokhtar, I.A., Foo, S., Majid, S., Theng, Y.L., Luyt, B. and Chang, Y. 2009. Proposing A 6+3 Model For Developing Standards For Schools: A Case for Singapore. *Education For Information*, 27: 81-101.

Noorgaard, R. 2004. Writing Information Literacy in the Classroom: Pedagogical Enactments and Implications. *Reference & User Services Quarterly*, 43(3) 220-226

Ogunsola, L.A., Akindojutimi, B.F. And Omoike, A.D. 2011. Information Literacy in Nigerian Higher Institutions – Any Role for Librarians? *Ozean Journal of Social Sciences*, 4(2) 85-92

Shanbhag, S. 2006. Alternative Models of Knowledge Production: A Step Forward in Information Literacy as a Liberal Art. *Library Philosophy and Practice*, 8(2). Http://Www.Webpages.Uidaho.Edu/~Mbolin/Shanbhag.Htm. Accessed 28 October 2010

Simmons, M.H. 2005. Librarians as Disciplinary Discourse Mediators: Using Genre Theory to move toward Critical Information Literacy. *Portal: Libraries And The Academy*, 5(3) 297-311.

South Africa, Department of Education. 2007. *The Higher Education Qualifications Framework*. Government Gazette No. 30353, Pretoria: Government Printer.

South Africa, Department of Higher Education And Training. 2012. Green Paper For Post-

School Education And Training. Http://Www.Info.Gov.Za/View/Downloadfileaction?Id=157779. Accessed 15 May 2012

Yeh, N. 2007. A Framework for Understanding Culture and its Relationship to Information Behaviour: Taiwanese Aborigines' Information Behaviour. Information *Research*. 12(2).

Jaya Raju is Associate Professor and Head of the Library and Information Studies Centre at the University of Cape Town, South Africa.