



## **Improving the resources for supporting information literacy education in developing countries**

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**Abstract:**

*The primary goal of this paper is to improve the resources that are currently being used to support information literacy education (ILE) in developing countries. The paper begins with a review of literature relevant to teaching and learning information literacy (IL) from a range of disciplines such as education, sociocultural studies, cognitive psychology, and library and information studies (LIS). The outcome of the review is a conceptual model that illustrates how key sociocultural variables might affect IL and ILE in developing countries. To construct the model, I have also drawn upon observations from two workshops I conducted in late 2011, one in Sri Lanka and one in Vietnam.*

*Based on this model, I then conduct an immanent critique of one of the main resources created for ILE and four tools for teaching IL, all of which are from Western developed countries. According to Antonio (1981), "immanent critique is a means of detecting the societal contradictions which offer the most determinate possibilities of emancipator social change" (p. 330). In simpler language, an immanent critique is a way of determining false assumptions within a social system in order to bring about positive changes. Change can be achieved by examining these assumptions against evidence which demonstrates inherent contradictions within them. In this paper, I use the factors affecting ILE from the model*

*developed through the literature review to identify and examine the Association of College and Research Libraries' (ACRL) "Information literacy competency standards for higher education" (2000) (henceforth referred to as the ACRL "Standard"s or the Standards) and four information teaching tools created for ILE to demonstrate contradictions within some of their embedded assumptions as they relate to the educational contexts in developing countries such as Sri Lanka and Vietnam. It is important for local librarians and so-called experts from developed countries teaching who are teaching IL in developing countries to be aware of these embedded assumptions and their potential effects on student learning.*

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### **Definitions of Information Literacy and Information Literacy Education**

Before we begin, definitions of IL and ILE are needed. The definition of IL provided in the ACRL *Standards* (2000) is drawn from a 1989 report by the American Library Association (ALA) Presidential Committee on Information Literacy. The Committee noted that in addition to having an enormous impact on the democratic way of life in the United States, and its ability to compete internationally, the information society provides an opportunity to address the nation's many social and economic inequalities. It stated that individuals and the nation as a whole must be information literate. It defined IL as "a set of abilities requiring individuals to 'recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" (p. 2). ACRL then uses this definition to claim that:

Information literacy forms the basis for lifelong learning. It is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning. An information literate individual is able to:

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Incorporate selected information into one's knowledge base
- Use information effectively to accomplish a specific purpose
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally (ACRL, 2000, pp. 2-3)).

IL is defined as a set of skills or competencies that involve cognitive processes such as determining, evaluating and understanding that are applied in relation to specific contexts.

To define ILE, I have used the *Oxford English Dictionary's* definition of "education" as a starting point. It defines education as "the process of receiving or giving systematic instruction, especially at a school or university". Thus ILE can be defined as "the process of receiving or giving systematic information literacy instruction, especially at a school or university". ILE is a process can be viewed from the receiver's (i.e., the student's) perspective and/or the giver's (i.e., the teacher's) perspective. We can take this definition a step further and say that ILE is the process by which teachers systematically facilitate students' learning of IL competencies.

## Factors Affecting Students' Learning

Learning occurs as an outcome involving the intersection of many inter-related factors. This part of the paper focuses on literature that seeks to identify and explain these factors and their inter-relatedness, especially in the context of developing countries such as Sri Lanka and Vietnam.

Brown, Collins and Duguid (1989) in a very highly cited paper (cited more than 10,000 times) discuss the importance of situation and context in learning. They begin by saying

In this paper, we try to explain in a deliberately speculative way, why activity and situations are integral to cognition and learning, and how different ideas of what is appropriate learning activity produce very different results. We suggest, that by ignoring the situated nature of cognition, education defeats its own goal of providing useable, robust knowledge. (p. 32)

They give the example of vocabulary acquisition, pointing out the importance of the learners' dependency on extralinguistic help derived from *indexical* words - words that "more plainly point to a part of the situation in which communication is being conducted" (p. 32). Words such as "*I, here, now, next, tomorrow, afterwards, this ...*" that 'index' or more plainly point to a part of the situation in which communication is being conducted" (p. 32). These words are completely context dependent rather than simply being context sensitive (p. 32). They argue that all knowledge is composed of constituent parts that "index the world and so are inextricably a product of the activity and situations in which they are produced" (p. 33). They say that a concept will continue to evolve and become more textured in the learners' mind as he or she uses the concept in experiencing new situations, negotiations and activities, "so a concept, like the meaning of a word, is always under construction" (p. 33).

For a student, the key concepts in IL will continue to evolve as he or she uses those concepts. From the ACRL definition, these will be concepts such as: identify extent of needed information; access information sources; evaluate information; incorporate selectively into knowledge base; understand legal, social & economic issues; think critically.

Brown *et al.* (1989) also talk about students acquiring tools (algorithms, routines and definitions) as they learn, but they do not automatically understand their value or know how to use them. It is through use that students acquire their understanding.

People who use tools actively rather than just acquire them, by contrast, build an increasingly rich implicit understanding of the world in which they use the tools and of the tools themselves. The understanding, both of the world and of the tool, continually changes as a result of their interaction. Learning and acting are interestingly indistinct, learning being a continuous life-long process resulting from acting in situations. (Brown *et al.*, 1989, p. 33)

Culture comes into the picture as well. Brown *et al.* say that "Because tools and the way they are used reflect the accumulated insights of communities, it is not possible to use a tool appropriately without understanding the community or culture in which it is used" (p. 33). This vision holds true for conceptual tools as well. They say that conceptual tools "similarly reflect the cumulative wisdom of the culture in which they are used and the insights and experiences of the individuals" (p. 33).

They point out that "appropriate use is not simply a function of the abstract concept alone. It is a function of the culture and the activities in which the concept has been developed" (p. 33).

Brown *et al.* argue that "activity, concept, and culture are interdependent" and "learning must involve all three" (p. 33). They go on to say that teaching abstracted concepts as fixed, well-defined, independent entities through the use of prototypical examples and textbook exercises "cannot provide the important insights into either the culture or the authentic activities of members of that culture that learners need" (p. 33). Though Brown *et al.* are speaking of the cultures of academic disciplines, professions and manual trades, what they are saying also holds true in respect of cultures that are composed of the beliefs and behaviours of different communities throughout the world. However, having said that, it is interesting to note that both types of cultures are important in ILE - the cultures of the academic disciplines in which ILE is situated, and the cultures of the communities of which the learners are members. And more importantly, it is important to recognise that the prototypical examples and textbook exercises available in many ILE tools, do not offer learners the contextually appropriate activities from which they will acquire the insights needed for in-depth learning.

To understand what academic culture is, Brick (2010) offers a concise definition. She states that academic culture is "the attitudes, values and ways of behaving that are shared by people who work or study in universities" (p. 2). Thus, the attitudes, values and the behaviours shared by the academic staff, students, librarians, research associates, administrators, etc., shape the academic culture of the university as a whole, and within the academic world there are sub-communities that establish discipline-specific cultures. To illustrate this latter point, consider the differences between the publication patterns in the sciences and those in the humanities. What is important here is that, like in the world at large, young members of the sub-community learn to be acceptable members by gaining an awareness of the attitudes, values and shared behaviours of that sub-community.

Johnston and Webber (2006) call attention to the impact of local and national culture on an information literate individual. They state:

In terms of local and national culture, the information literate person is a self- and socially conscious being, rather than a simple repository of skills and knowledge. This is underlined by cross-cultural difference, where issues of behavior and acceptability of kinds of information become sensitive. Even someone who remains in one country may experience changes in what is perceived as acceptable. ... Attitudes towards information sharing, assumptions about appropriate use of C&ITs, or approaches to evaluating information sources may be different. (p. 113)

The point made by Johnston and Webber that someone who is information literate is both self- and socially conscious is an important one. A person becomes aware of whether his or her behaviour is culturally appropriate by connecting social consciousness with self-consciousness. This connecting begins to occur, according to the Russian educational theorist, Vygotsky (1998) during adolescence. In his analysis of Vygotsky's views of adolescent development, Karpov notes "as formal logical thinking makes adolescents capable of self-analysis and of the analysis of their place in the world, the society, according to Vygotsky, provides adolescents with tools for such analysis and with the

social norms from which their analysis proceeds." Karpov then cites Vygotsky (1998, p. 182), "self-consciousness is social consciousness transferred within."

For young people, this self-consciousness is like an inner reflection, whether consciously or unconsciously realised, about how they personally relate to the norms and values of the community or society to which they belong. These norms and values reflect the characteristics of culture which have been labelled by Geert Hofstede as *cultural dimensions*. Hofstede has identified five cultural dimensions; however, I refer only to the two that I perceive to be the most relevant to this discussion of ILE: individualism and power distance. In the 1970s Hofstede compared the cultural dimensions of more than 40 countries using a scoring scale of 0 to 100 based on data collected from IBM employees. While Hofstede's measures of cultural dimension have been criticised as being too positivist (see for example, McSweeney, 2002), his measures nonetheless allow a way to conceptualise aspects of culture for critical analysis.

Individualism and its opposite, collectivism, reflect whether a society prefers people's self-image to be "defined in terms of 'I' or 'we' (Hofstede, 2012). Power distance relates to how members of a society perceive inequalities among people. Where there is low power distance, individuals "strive to equalise power and demand justification for inequalities of power" whereas where there is high power distance people "accept a hierarchical order in which everybody has a place and which needs no further justification" (Hofstede, 2012).

Nisbett (2003) relates very similar differences between Western and Asian cultures to the ancient Greeks who "had a sense of personal *agency*" (p. 2) and the ancient Chinese who developed a sense of *harmony* (p. 5) which led to a sense of *collective agency* (p. 6). Nisbett (2003) describes the Greek sense of personal agency as "the sense that they were in charge of their own lives and free to act as they chose" (p. 2). Accompanying this sense of personal identity were a strong sense of individual identity, a passion to debate issues (p. 3), and an intense curiosity about the world that led to systematic observations accompanied by attempts to explain them "in terms of underlying principles" (p. 4).

The Chinese sense of harmony, according to Nisbett (2003), situated every Chinese person as "first and foremost a member of a collective, or rather several collectives – the clan, the village, and especially the family" (p. 5). Their sense of collective agency gave them the feeling "very much a part of a large, complex, and generally benign social organism where mutual obligations served as an ethical code" (p. 6). Accompanying this sense of collective agency were an understanding of shared rights rather than individual rights, the discouragement of confrontation including any form of debate, and a focus on practicality rather than theoretical explanations based on principles (pp. 7-8). Nisbett contends that these differences between ancient Western and Asian cultures provides explanations for how and why individuals from the two contemporary cultures differ in their "cognitive habits". This point raises the question of whether the resources for ILE that have been developed from a Western cultural perspective, such as the ACRL *Standards* and IL teaching tools, are suitable for Asian societies.

Hofstede and Hofstede (2005, pp. 96-99) offer examples of how, in the school setting, students from collectivist cultures react to situations differently from those from individualist cultures. They give

the example of teachers from an individualist culture who are working on development projects in collectivist cultures often lament that students tend not to speak up, "not even when the teacher puts a question to the class" (p. 96). Students who perceive themselves a part of a group feel that speaking up in class is illogical unless sanctioned by the group.

Another example provided by Hofstede and Hofstede is related to educational situations that foster debate and intellectual risk taking.

In the collectivist classroom the virtues of harmony and maintaining face reign supreme. Confrontations and conflicts should be avoided or at least formulated so as not to hurt anyone; students should not lose face if this can be avoided ... . In the individualist classroom, of course, students expect to be treated as individuals and impartially ... . Confrontation and open discussion of conflicts are often considered salutary, and face-consciousness is weak or non-existent. (p. 98)

A feature that has high relevance in countries composed of a mixture of ethnic groups such as Sri Lanka is the manner in which collectivism and individualism affect classroom behaviour. Hofstede and Hofstede (2005, p. 98) suggest that in high collectivist societies students from the same ethnic groups "often form subgroups in class" whereas in individualist societies "the assignment of joint tasks leads more easily to the formation of new groups." When teachers provide group learning activities in collectivist societies, they need to bear this in mind.

An extremely important point made by Hofstede and Hofstede (2005, p. 98) is the difference between collectivist and individualist societies with respect to the purpose of education. In the latter, "it aims at preparing the individual for a place in society of other individuals" and means "learning to cope with new, unknown, unforeseen circumstances" which are viewed as something highly positive. "The purpose of learning is less about how to do as to know *how to learn*" (p. 98) and learning therefore is a lifelong pursuit. In a collectivist society, the focus is on teaching the skills and virtues for the individual "to be an acceptable member of society" (p. 98). Tradition is much more important and "learning is more often seen as a one-time process, reserved for only the young, who have to learn *how to do* things in order to participate in society. It is an extended rite of passage" (p. 98). These differences in the purpose and meaning of learning are extremely relevant to how IL is defined in different cultural contexts.

The target group for many of the IL resources developed over the past two decades are university students, a group largely composed of what Arnett (2011) categorises as "emerging adults", that is, people who are in the period after secondary school and entering into marriage and parenthood (p. 255). For research in the United States, Arnett identified emerging adults as individuals between the ages of 18 and 29 but he noted that this age range could well differ between cultures (p. 255). Arnett (2011) suggests the degree of individualism or collectivism within a culture affects the social and psychological development of "emerging adults" but he also points out that there are differences between Western and Asian cultures. He says "Asian cultures have a shared cultural history emphasizing collectivism and family obligations" (p. 261). He says that the identity explorations and self-development of emerging adults, though becoming more individualistic due to globalization, in comparison to their American and European counterparts are positioned "within

narrower boundaries set by their sense of obligations to others, especially their parents" (p. 261). The effect is that in cultures that have high individualism, the emerging adults are likely to be more individualistic in how they approach tasks because they are expected to be self-reliant. As students, they will speak out in class, feel at ease when trying to do a new task on their own. In collectivist cultures, the students will prefer to work in groups because they are expected to be group oriented. In countries with high individualism students feel more comfortable making decisions in a manner that exhibits reliance on self, whereas in cultures with high collectivism, students feel more comfortable making decisions in a manner that exhibits reliance on, and support for the group.

Interestingly, Arnett (2011, p. 263) contends that emerging adulthood in developing countries does not exist among the rural poor, that it occurs among society's wealthier group, mainly the urban-middle class. But identity development is highly challenging for these emerging adults because, as Arnett, 2011 (citing Arnett, 2002, and Jensen, Arnett and McKenzie, 2011) suggests, "many of them develop a bicultural or hybrid identity, with one aspect of themselves for participating in their local culture and a different aspect of themselves for participating in the global economy" (pp. 263-264).

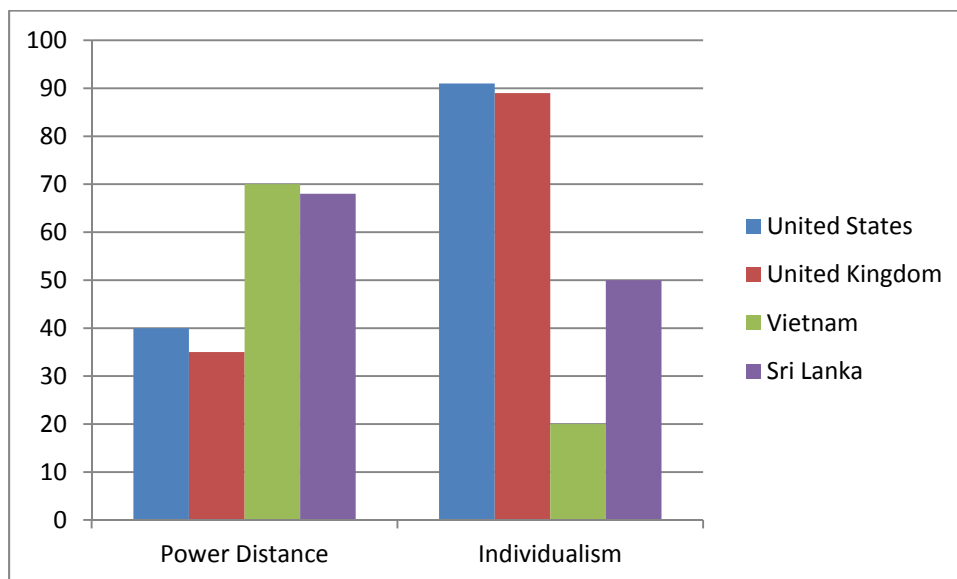
The power distance dimension of culture is a major contributor to how society regulates itself. In cultures with high power distance, it is accepted that people are unequal because that's just the way it is. When a person is born into a family with low status and power, it is his or her fate. In low power distance cultures people believe that individuals can raise their status and power by what they do with themselves, through high educational achievement for example.

The two countries that are used as examples in this paper are Vietnam and Sri Lanka. The *CIA World Factbook* (2012) gives the population of Vietnam as 91.5 million with the Kinh (Viet) ethnic group making up almost 86% of all inhabitants and no other ethnic group reaching 2% of the population. The language spoken in the country is Vietnamese and English is increasingly favoured as a second language over French. The *CIA World Factbook* also lists 80.8% of the Vietnamese people as not identifying with a specific religion, and Buddhism (9.3%) and Roman Catholicism (6.7%) being the two largest religions. However Adams and Gillogly (2011b) say that in Vietnam "Confucianism, Daoism, and Mahayana Buddhism are intertwined" (p. 139) and "practitioners make use of different sets of cosmological systems and practices depending on the social context and personal inclination" (pp. 139-130). They suggest that Mahayana Buddhism predominates and that people follow its practices to gain "inner peace and a sense of living right" (p. 140). They point out that in Vietnam "Daoism imbues everyday life ... rather than being a formally institutionalized religion" (p. 140) and that a key element of the Confucian perspective is that "family organization is decidedly patriarchal" (2011b, p. 12). Hofstede's measures of cultural dimensions show that Vietnam has low individualism and high power distance (Hofstede, 2012). The Communist Party of Vietnam (CPV) controls the government and as a single party state the CPV does not allow opposition to its ideologies (Human Rights Watch 2012). And, there are growing disparities in living standards between urban and rural areas and between the rich and poor (Le and Booth, 2010, p. 1).

The *CIA World Factbook* (2012) gives the breakdown of Sri Lanka's more than 21 million inhabitants as Sinhalese forming the majority at 73.8% of the population, followed by Tamils at 8.5% (composed of 4.6% Indian Tamils and 3.9% Sri Lankan Tamils), Sri Lankan Moors at 7.2% and 10% others. Because Sri Lanka is a multicultural nation it therefore is difficult to specify a singular national

culture. Approximately 74% speak Sinhala (the official and national language, with 18% speaking Tamil, and about 10% speaking English competently. Buddhism with 69.1% of the population is the most practised religion, while 7.6% of the population identify as Muslim, 7.1% as Hindus, 6.2% as Christians, and 10% unspecified. Holt (2011) contends that "Buddhism, Hinduism, Islam, and Christianity are definitely ethnic markers delineating Sri Lanka's various communities" (p. 2) and he suggests that in terms of Sri Lanka's recent history, the religious differences have been used to rationalise aspects of the country's civil war. Sri Lanka has only recently emerged from a 20 year civil war in which the Tamil minority was attempting to secede. And though the country's military is less visibly present now than during the war, it was nonetheless still very much evident when I visited Sri Lanka late last year.

Sri Lanka was not among the countries for which Hofstede measured the dimensions of culture, but a self-published paper by Gishan Chaturanga of the University of Moratuwa in Sri Lanka includes a component in which he suggests values for Sri Lanka by comparing values with neighbouring India and other similar countries. For individualism, Chaturanga suggests that Sri Lanka is the middle range with a score of 50, just slightly higher than the score of 48 that Hofstede assigned to India. Chaturanga's suggested score is higher than Vietnam's 20, but much much lower than the 91 for the United States of America (USA). For Power Distance, he suggests a score of 68 for Sri Lanka (lower than India's score of 77), but only slightly lower than Vietnam's 70 and much higher than the USA's score of 40. When we add the United Kingdom (UK) to the group, with its scores of 35 for Power Distance and 89 for Individualism, we can see that the cultures of the two major Western countries are vastly different from the two Asian countries.



**Figure 1: Comparison of Power Distance and Individualism**

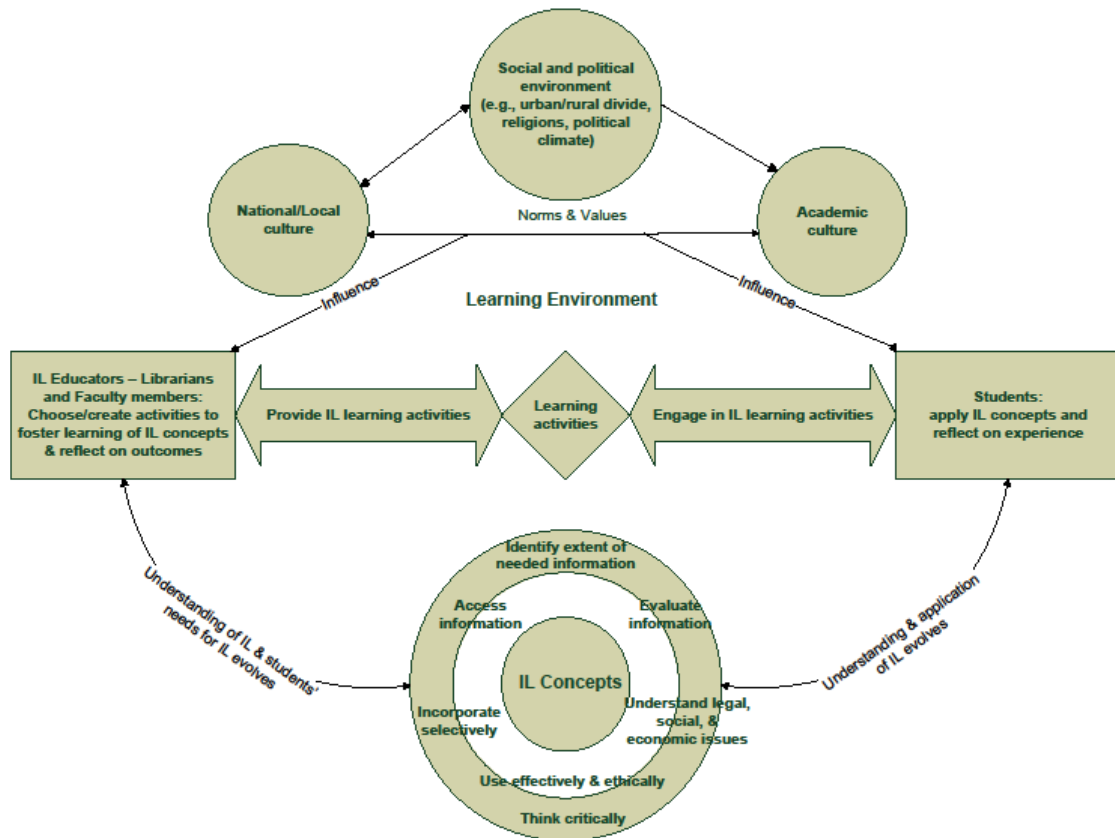
In Figure 1 the Power Distance dimension is visibly much stronger in Vietnam and Sri Lanka than in the USA and the UK whereas the Individualism dimension is very much stronger in the USA and the UK. The low score for Vietnam indicates very high collectivism whereas Sri Lanka seems to sit in the middle.



## Conceptual model

As defined earlier, ILE is the process of receiving or giving systematic IL instruction, especially at a school or university. The receiving or giving of IL instruction will theoretically be affected by the various factors discussed above. Situation and context, as pointed out by Brown *et al.* (1989) are important to learning. Teaching is the process of providing learning activities to facilitate learning. As the students engage in the learning activities to gain specific skills and knowledge, their understanding of the concepts are evolving. Culture is a critical component, and in an educational context, local and national culture as well as academic culture affect the learning environment. The norms and values in these cultures affect how the individuals (both students and teachers) understand the concepts in relation to the structure of society (power distance) and their own roles in relation to others in their society (individualism and collectivism). As students progress through adolescence and into emerging adulthood, their understandings are shaped as they reflect on their experiences of their learning activities through their increasing self and social consciousness in relation to the norms and values of the communities to which they belong.

So what can we make of all of this in relation to ILE? Morrison (2009) observes that IL "standards and best practices are designed within specific cultural contexts, yet promoted as universal processes and ways of learning for all cultures" and in general, "support the assumption that there is one 'best' way to learn" (p. 4). Linking back to the earlier discussion, we can view IL as a complex tool composed of various concepts that learners (i.e., students) will understand progressively through educational activities provided by teachers, such as school and university librarians, classroom teachers and university lecturers. The learning is situated within a learning environment affected by its academic and societal culture, which in turn affect the learners, the teachers, and how they interact with each other and with the broader society. The norms and values of the cultures, both societal and academic, along with social and political environment, also come into play. The students' reflections of their learning activities influence their understanding of the IL concepts, and indeed, the teachers' choices of learning activities are also influenced by the environment. Politics comes into play. Religion comes into play. Issues of authority and resource allocation come into play. Language too is an issue.



**Figure 2: Conceptual Model of Information Literacy Education**

In the model, the learning environment, as well as the individuals within it, are affected by the norms and values of the national/local culture and the academic culture, both of which are related to the larger social and political environment. Theoretically, the students will become increasingly knowledgeable about IL, building up their understanding of and abilities to use IL's component concepts by engaging in learning activities selected or created by the IL educators, i.e. the librarians and faculty members. As the students' self- and socially-reflect on what they have learned, their understanding of IL concepts will evolve, and their ability to use the composite IL concepts will increase, thus increasing the students' ability to learn. IL in essence, becomes a continuum of learning.

### **Immanent Critique of ACRL Information Literacy Standards and Four IL Tools**

An immanent critique, as described earlier, is the identification of false assumptions within our social system to bring about positive changes. This examination of the ACRL *Standards* and four IL teaching tools identifies assumptions within them that are inappropriate when considered in the context of Asian developing countries. If IL librarians in developing countries use the *Standards* and these similar tools without an awareness of the assumptions embedded within them, they might well choose IL learning activities that do not lead to effective learning of IL concepts specifically and IL in general.

ACRL's *Information Literacy Competency Standards for Higher Education* are perhaps the best known and the most used IL standards at the tertiary education level in English-speaking developed countries and they have been translated for use in some European countries. They are also well-known and used in developing countries as can be seen in papers by Sacchanand (2009) from Thailand, and Baro and Fyneman (2009) from Nigeria.

There are 22 performance indicators that accompany the five IL competency standards that make up the ACRL *Standards*. In addition, a range of outcomes are provided to help assess the progress of students in becoming information literate. As noted in the ACRL *Standards*,

These outcomes serve as guidelines for faculty, librarians, and others in developing local methods for measuring student learning in the context of an institution's unique mission. In addition to assessing all students' basic information literacy skills, faculty and librarians should also work together to develop assessment instruments and strategies in the context of particular disciplines ... (ACRL 2000, p. 6)

The performance indicators, and to an even greater extent, the outcomes, provide models of desirable behaviours that students will demonstrate when they have become information literate. The *Standards* and their accompanying performance indicators and outcomes therefore provide the basis for assessing the competency levels of IL students.

The ACRL *Standards*, however, are not without critics. Harris (2009), for example, points out that the ACRL *Standards* "have been the primary means for information literacy advocates to develop teaching and learning goals related to the location, selection, evaluation, and use of information" (p. 279). He goes on to say that the standards have "in some ways ... taken the place of pedagogy in library instruction, resulting in a profession-wide dependence on lists of educational outcomes to define both the theory and practice in information literacy instruction" (p. 279). In developed countries, this set of circumstances might well limit the thinking and creativity of IL teachers, influencing them to choose or create learning activities facilitate the learning of IL concepts for students from the dominant culture at the expense of minority cultures. If considered within the context of developing countries, the reliance by librarians on the ACRL *Standards* to articulate educational outcomes might result in the selection or development of learning activities that might not be contextualising the application of the IL concepts in situations that the students can relate to their lives, either inside or outside of their formal learning environment. The result could well be that when the students self- and socially-reflect on their learning activities, either consciously or unconsciously, their understandings of IL concepts will evolve only minimally or not at all. In other words, it will be highly unlikely that the students will experience anything like the in-depth learning required as the basis for life-long learning.

This critique also includes an examination of four information literacy teaching tools. The examination focuses on the parts of these tools that relate to the specific ACRL *Standards* that are being examined. In the analysis below, I call them either by title or as Tool 1, Tool 2, Tool 3 and Tool 4.

Item	Title	Source	Year
ACRL Standards	<i>Information Literacy Competency Standards for Higher Education</i>	Association of College and Research Libraries	2000
Tool 1	<i>Working with Faculty to Design Undergraduate Information Literacy Programs</i>	R.M. Young and S. Harmony	1999
Tool 2	<i>Hands-On Information Literacy Activities</i>	J. Birks and F. Hunt	2003
	<i>More Hands- On Information Literacy Activities</i>	F. Hunt & J. Birks	2008
Tool 3	<i>Assessing Student Learning Outcomes for Information Literacy Instruction in Academic Institutions</i>	edited by E.F. Avery	2003
Tool 4	LILO: Learning Information Literacy Online <a href="http://www.hawaii.edu/lilo/index/FA11_index_day.php">http://www.hawaii.edu/lilo/index/FA11_index_day.php</a>	University of Hawaii Libraries Information Literacy Committee	2006

**Table 1: Resources Examined in Immanent Critique**

Tool 1 is a "How-To-Do-It-Manual for Librarians" by Young and Harmony called *Working with Faculty to Design Undergraduate Information Literacy Programs*. Though it was published in 1999, the aim in examining this document is to look at assumptions relating to the relationships between librarians and faculty members in respect of the development of IL programmes.

Tools 2 is a set of two books, *Hands-On Information Literacy Activities* (2003) by Birks and Hunt and *More Hands-On Information Literacy Activities* (2008) by Hunt and Birks. These books provide activities "developed from a teaching librarian's perspective " which are presented in "a lesson plan format ... that can be easily adapted to a variety of learning contexts" (Hunt & Birks 2008, pp. vii-viii). Each book includes a CD-ROM that provides electronic versions of the worksheets and activities so that they can be easily customised (p. viii).

Tool 3 is a compilation of papers from academics and librarians involved in an ACRL project to put the ACRL Standards into practice. Published in 2003 *Assessing Student Learning Outcomes for Information Literacy Instruction in Academic Institutions* (edited by E.F. Avery) contains 29 chapters providing discussions about, and examples of, tools for assessing the changes in students' understanding of IL, or skills in IL , as a result of ILE programmes.

Tool 4 is called LILO which is an acronym for "Learning Information Literacy Online", a web-based tool made available by the University of Hawaii Libraries Information Literacy Committee for the faculty members and students at that university (<http://www.hawaii.edu/lilo/>). The tool has information for faculty members who might wish to assess their students' IL competency levels, and it can be used directly by students to assess their level of IL competency and to help them with the research needed for assignments. It includes a tutorial to introduce students to LILO, and video clips to demonstrate how to use it.



Figure 2: LILO home page: <http://www.hawaii.edu/lilo>

### The Purpose of Information Literacy

The ACRL *Information Literacy Standards for Higher Education* (2000) begin with the definition of IL that includes the statement: "Information literacy forms the basis for lifelong learning. It is common to all disciplines, to all learning environments, and to all levels of education" (p. 2). This statement assumes that there is a uniform perception of information literacy in learning environments around the world, regardless of their situational contexts. It also appears to assume that all societies place a high value on information literacy because it is the foundation of something called "lifelong learning". However, as noted earlier, lifelong learning has not been a concept that is understood in far Eastern cultures. Students from countries such as Vietnam and Sri Lanka, when undertaking activities to understand the inter-related concepts of IL, will reflect upon them and perceive them as processes that they need to learn to fulfil their responsibilities in becoming acceptable members of their communities. The students' purposes for becoming information literate will be collectivist rather than individualist, especially in Vietnam.

In Tool 3, there is a statement by Avery (2003) pointing out that the ACRL *Standards* "focus on what the students should be able to know and do, not on specific knowledge of tools" (p. 2). And Tool 1 begins with a discussion of the need to distinguish between information literacy and bibliographic instruction. Bibliographic instruction is depicted in Tool 1 as the "the variety of methods and techniques to teach students the skills to locate and evaluate information resources" whereas "information literacy is the outcome that students achieve in being able to apply these skills throughout educational, professional, and personal lives" (Young & Harmony 1999, p. 1). The authors of Tool 1 go on to say "the ultimate objective ... is to produce independent learners" (p. 1).

This statement suggests that the ACRL *Standards* assume that it is more important to teach the significance of IL first, followed by the practical aspects, whereas in countries such as Vietnam and Sri Lanka it would make more sense to teach the practical aspects as a lead into the conceptual understanding of IL.

IF ILE is perceived to be about teaching students firstly to understand IL at a conceptual level rather than at a practical level, then the IL tools that are based on this assumption will likely be inappropriate to the contexts of many developing countries. When the students in developing countries self- and socially-reflect about those learning activities, their understanding of IL concepts will be cloudy or will evolve only very slowly or not at all. The students might also lose their motivation to participate in IL activities which are too esoteric and not practical enough for them. Students in Vietnam and Sri Lanka, for example, will have higher motivation to learn how to use specific tools first, then to come gradually to an understanding of IL through the use of those tools, whereas students in Western countries become motivated to learn when they realise the importance of what they are supposed to learn.

### **Faculty/Staff/Student Relationships**

There are assumptions in the *Standards* and tools about the relationships that occur between and among the various individuals that reflect Western concepts of education which are unrealistic in the contexts of countries such as Vietnam and Sri Lanka.

ACRL Standard 1 states that "the information literate student determines the nature and extent of the information needed" (p. 8), and the first performance indicator is "the information literate student defines and articulates the need for information" (p. 8). To determine whether the student's performance matches the indicator, six outcomes, labelled a) to f), are identified. Outcome a) says that the information literate student "confers with instructors and participates in class discussions, peer workgroups, and electronic discussions to identify a research topic, or other information need" (p. 8). The assumption here is that the behaviour described in Outcome a) is desirable and that students should strive to meet this expectation. However, this type of behaviour in many countries is impractical or even worse, frowned upon.

Teacher-centered pedagogy is still predominant in both Vietnam (Diep and Nahl, 2011) and Sri Lanka (Wijetunge, 2008) though officially, there has been a transition towards student-centred learning. The size of undergraduate classes in these countries tends to be very large (ranging from 150 students to 450 students). A comment to me from a Sri Lankan librarian was that in undergraduate courses in her country, there is no discussion in class and if any student speaks up and tries to initiate discussion, he or she would very likely have marks deducted for doing so, and even in smaller tutorial sessions, there is little, if any, discussion. The academic culture tends to mirror the national culture in that there is a high level of power distance between faculty members and librarians, between faculty members and students, and between librarians and students. As a result, students in these countries are less likely to be able to confer with their instructors. The students also may feel reluctant to participate in discussions in classes with large numbers of students, assuming that in-class discussions actually occur given that the main form of pedagogy is still teacher-centered. And electronic discussion is highly unlikely not only because of technology

limitations but also because students in these countries feel uncomfortable due to possible loss of face by putting their thoughts into written form and making them visible to the full class.

The second module in the Tool 4 (LILO) tutorial is labelled "Your assignment" (<http://www.hawaii.edu/lilo/fall11/tutorial/module2/assignments.php>). The first piece of information on this web page informs the students that "the key to a successful paper or presentation is knowing what your instructor wants from you". It advises the students to consult with their instructor: "Your instructor will be glad to answer your questions. Do this as soon as the assignment is given to you." Again, there is an assumption that the students will have access to their instructors who will be happy to talk with each student on an individual basis. However, in Vietnam and Sri Lanka, especially at the undergraduate level, as pointed out above, discussion is discouraged. One person commented to me that power distance between academic staff and students is large, especially when the academic staff are older. The likelihood of access to academic staff therefore is very low.

In Tool 4 (LILO), the first page in the third tutorial module, "Research Strategy," is labelled "Select your topic" ([http://www.hawaii.edu/lilo/fall11/tutorial/module3/select\\_topic.php](http://www.hawaii.edu/lilo/fall11/tutorial/module3/select_topic.php)) and it assumes that students have choices. The page starts with the statement: "Choose a topic that [is] interesting and meaningful to *you*" and it ends with "instructors enjoy reading papers from students who are engaged and interested in their research paper topics." There is an assumption that student's can choose their assignment topic, something which is unlikely to occur in the large undergraduate classes of Sri Lanka and Vietnam - and there is also a sense of informality between faculty members and students that does not exist in either of those countries.

A major premise of Tool 1 is that librarians must work with faculty members for ILE to be successful. Chapter 2 begins with the statement: "a prominent theme in library literature is the need for librarian-faculty cooperation for successful information literacy efforts" (Young and Harmony 1999, p. 11). Tool 1 emphasizes the point that "unless faculty are information literate themselves, students will not be" (p. 21) and it identifies ten different opportunities for librarians to work with faculty to assist them in becoming information literate (pp. 21-25). What is assumed here is that the campus librarians not only will be able to interact with faculty members, but the faculty members will accept the librarians as important players in their own academic performance as well as in their students' - and that there will be support from the university administration. In Sri Lanka and Vietnam, however, the power distance dimension of culture comes into play, and academic staff tend to see librarians as being much lower in importance than themselves. This separation of faculty members and librarians is a feature of the academic cultures in tertiary education institutions in these countries.

Academic librarians at an information literacy workshop in Vietnam told me that they are not taken seriously by the faculty members because the qualification to become a librarian is an undergraduate degree in library and information studies. Thus the librarians are perceived as not being knowledgeable about other subjects and therefore they are not taken seriously. Faculty members would likely not be willing to attend a faculty-only workshop on the use of information resources which is one of the suggestions in Tool 1. And the embedding of an information literacy component within an undergraduate course would not be something easily negotiated by a librarian in a Vietnamese University. In Sri Lanka, several of the librarians at the IL workshop that I

participated in told me that they have made some progress in getting faculty members to understand the importance of IL, and they had been able to obtain approval to offer credit-based information literacy courses in a few disciplines. However, the only time made available for these IL courses was late on Friday afternoons, when students typically depart for home for the weekend. This situation has resulted in very few students signing up for the courses.

There are also assumptions in the *Standards* and the tools about students' relationships with other students, with librarians and with their teachers. In the *Standards*, several of the outcomes that model exemplary behaviour portray an information literate student as an outgoing individual who speaks up in class, asks questions, and so forth. As pointed out above, Outcome a) of Performance Indicator 1 for Standard 1 is based on an assumption that the information literate student confers with instructors, participates in class discussions, and even contributes his or her thoughts in written form to electronic discussions. This assumption is even more pronounced with regard to the three outcomes for Performance Indicator 6 for Standard 3.

6. The information literate student validates understanding and interpretation of the information through discourse with other individuals, subject-area experts, and/or practitioners.

Outcomes Include:

- a. Participates in classroom and other discussions
- b. Participates in class-sponsored electronic communication forums designed to encourage discourse on the topic (e.g., e-mail, bulletin boards, chat rooms)
- c. Seeks expert opinion through a variety of mechanisms (e.g., interviews, e-mail, listservs) (ACRL 2000, p. 12)

In the above outcomes, the expectation is that information literate students are outgoing, feel comfortable speaking out among their peers, is not concerned about placing their thoughts into a public forum, and will contact experts.

Similarly in Tool 4, in Module 3 of the Tutorial, on the page, labelled "Topic sources" ([http://www.hawaii.edu/lilo/fall11/tutorial/module3/topic\\_sources.php](http://www.hawaii.edu/lilo/fall11/tutorial/module3/topic_sources.php)), LILO suggests to the student to "take an idea you have and 'brainstorm' with friends, classmates, or your instructor" and then it goes on to say "brainstorming is an open, free flow of discussion on a topic without judging, censoring or criticizing. An idea that at first seems ridiculous or silly may in fact be an excellent research topic after it has been identified, discussed and refined."

Tool 2 also assumes that students will learn by placing their thoughts into the open in group activities. For example, one activity is labelled "Hot Seat/ Concept Review Game" (Birks & Hunt 2003, pp. 9-11). In this activity, the class is to be divided into two or three groups, and ideally each student will have a chance to sit in the "hot seat", that is, a chair placed at the front of the group. The activity requires the student in the hot seat to guess a word that has been written on a whiteboard behind him or her based on descriptions or definitions provided by the group. The advice given to the instructors is to use this activity "at the beginning of your class to review vocabulary and concepts for the lesson planned, midway through to energise your class and keep them focused, or at the end to finish on a positive high" (p. 9). The assumption in this exercise is



that students will enjoy being in the hot seat and from this positive experience they will be able to reflect on vocabulary terms and concepts that have learned.

As can be seen in the above examples, some of the assumptions in the *Standards* and tools about students may be fine for students in the USA, or in Australia, but not so for students in countries with high power distance, or in which saving face is important. In Vietnam, for example, students are highly unlikely to feel comfortable in a brainstorming exercise where there is a chance that they might lose face because their ideas might appear to be "ridiculous or silly" to their instructor or the other students, even if there is chance that they could turn out to be a good ideas as suggested in Tool 4.

### **Critical thinking skills**

An essential ability that underpins the components of information literacy is the ability to apply critical thinking skills. As noted earlier, Western thinking and Eastern thinking have developed over time from different philosophical roots. Whereas Western thinking encourages individuals to challenge current thinking and debate the issues, Eastern thinking seeks harmony and agreement. Because the ACRL *Standards* and information literacy tools reflect Western thinking, they incorporate assumptions that if accepted by IL educators in countries such as Sri Lanka and Vietnam would reduce the effectiveness of their educational programmes.

As noted by Avery (2003a) the ACRL *Standards* is a tool that "not only defines an information-literate student in its five standards, but it also includes performance objectives and specific outcome statements ..." (p. 1). Because of its focus on what the students "should be able to know and do ... there has been a shift in focus from teaching specific information resources to a set of critical thinking skills involving the use of information" (p. 2). According to Avery, these standards, and their accompanying outcomes and performance indicators, provide the foundation for outcomes assessment. She says that outcomes assessment "is now the means for learning, not just the method of evaluation. It is designed to inform about the acquisition of skills and thought processes by students" (p.2). There is an underlying assumption here that the skills and thought processes of IL will be the same for students across different cultures and in different contexts.

The ACRL definition of information literacy includes the statement that "an information literate individual is able to ... evaluate information and its sources critically" (ACRL 2000, pp. 3-4). At an information literacy workshop in Southeast Asia a few years ago, a school teacher said that people in his country are not allowed to criticise. His perception of critical thinking may well epitomise the perception of many people from Eastern cultures that critical thinking is thinking that criticises, belittles, confronts, and so on, thinking that is undesirable because it works against harmonious relations and if expressed might lead to punishment. The assumption in the ACRL *Standards* is that critical thinking is universally understood as thinking that leads to sound reasoning, informed decision-making and so on, actions that are positive and help the individual to look after him- or herself.

In the ACRL *Standards*, Outcome f) for Performance Indicator 1 for Standard 1 states that the information literate student "recognizes that existing information can be combined with original thought, experimentation, and/or analysis to produce new information" (ACRL 2000, p. 8). In Asian countries such as Vietnam and Sri Lanka where the predominant pedagogical style is teacher-

centered, students have been taught to learn by memorising what their teachers say, and by following their teachers' actions, rather than through independent thinking or experimentation or analysis. The assumption in the *Standards* is that librarians will be able to identify or develop, either on their own or in collaboration with faculty members, learning activities that promote independent thinking, experimentation and analysis that will lead the students to the production of new information.

For some performance indicators the *Standards* identify outcomes that reflect a common assumption that students will be able to relate critical thinking with the ability to assess social, political, and cultural aspects of information. Performance Indicator 2 for Standard 1 is "the information literate student identifies a variety of types and formats of potential sources for information" (ACRL 2000, p. 8) and Outcome a) indicates that an information literate student "knows how information is formally and informally produced, organized, and disseminated" (p. 8). This outcome is meant to occur early in the IL process, i.e., in relation to Standard 1, recognizing the nature and extent of the needed information. As the student gets further into the research process then Standard 3 becomes important. It states that "the information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system" (p.11). Performance Indicator 2 for Standard 3 states that "the information literate student articulates and applies initial criteria for evaluating both the information and its sources" (p. 11). There are four outcomes for Performance Indicator 2, all of which are based on an assumption that students will be able to think critically. The last of these, i.e., Outcome d), is the most problematic and is based on the same assumption as Outcome a) for the second Performance Indicator for Standard 1. It states that the information literate student "recognizes the cultural, physical, or other context within which the information was created and understands the impact of context on interpreting the information" (p. 11).

Given that in countries such as Sri Lanka and Vietnam, the students have been taught to learn by memorising what their teachers say, and by following their teachers' actions, the role of the faculty is important. They must act in a manner that the students can emulate. Indeed the ACRL *Standards* recognise the important role of faculty members: "Guided by faculty and others in problem-based approaches, students reason about course content at a deeper level than is possible through the exclusive use of lectures and textbooks" (ACRL 2000, p. 4). The ACRL *Standards* assume that faculty members themselves are critical thinkers. Similarly, in Tool 1, there is an assumption that faculty members need to be involved in ILE. Tool 1 provides an example of a proposal to incorporate IL competencies into a freshman English curriculum. The example includes the statement "we believe that the instruction of critical-thinking skills to locate and evaluate information resources is a joint responsibility of librarians and professors" (Harmony, Marcotte, Oswald & Young, as cited in Young and Harmony, 1999, p. 26).

In the ACRL *Standards*, the critical thinking skills of information literate students go beyond their ability to determine whether information resources have needed credentials such as topic relevance, peer-review, and currency of content. They also include the requirement for the student to reflect on how the information relates to society and to oneself. Standard 3 states that "the information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system" (ACRL 2000, p. 11). Performance Indicator 2 and its accompanying outcomes epitomize the strength of the assumption:

2. The information literate student articulates and applies initial criteria for evaluating both the information and its sources.

Outcomes Include:

- a. Examines and compares information from various sources in order to evaluate reliability, validity, accuracy, authority, timeliness, and point of view or bias
- b. Analyzes the structure and logic of supporting arguments or methods
- c. Recognizes prejudice, deception, or manipulation
- d. Recognizes the cultural, physical, or other context within which the information was created and understands the impact of context on interpreting the information

Students from Sri Lanka, where a civil war has only just ended, and Vietnam, where the political structure is a single party state, are going to have difficulties achieving these outcomes because of their countries' collectivist cultures and political environments. There are large assumptions here that that the social and political structures in which the students' learning environments are situated permit access to all sources of information, encourage critical reflection about biases embedded in the information, and permit "free-thinking" about information that promotes "free-thinking". Clearly this will not be the case in war torn or highly censored, collectivist countries. And where high power distance exists, as in both Sri Lanka and Vietnam, there will be very little reason for students to question the authority behind information since whatever they do will have little chance to affect change.

In the first of the two books in Tool 2, there are two activities for evaluating web sites. The first activity provides several criteria for students to use for assessing bias. The students are meant to reflect on whether the information is "Trying to sell something? Opinion? Telling only part of the story? Is there a sponsor (e.g., a company) who has an interest?" (Birks and Hunt 2003, p. 70). These criteria are relatively straight-forward. However, the second set of criteria includes some relating to authoritativeness, beginning with questions to assess the individual author (Who is the author? What does the author tell you about himself? Why do you feel the author is knowledgeable about the topic? Has he published other books or papers on the topic?" (p. 75). The next criterion, however, is the one that assumes that an information literate student should assess the authoritativeness of government bodies: "What group is responsible for the Web site other than the author? (Is it a government body? A company? An educational institution? A research institution? An individual? Other?)" (p. 70). However, the activity does not indicate what a student specifically should be examining other than whether the information comes from that source.

ACRL Standard 5 also has assumptions that reflect Western perspectives that require careful consideration by IL librarians in developing countries: "the information literate student understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally" (ACRL 2000, p. 14). The first performance indicator for Standard 5 and the four outcomes reflect the relevant exemplary behaviours:

1. The information literate student understands many of the ethical, legal and socio-economic issues surrounding information and information technology.

Outcomes Include:

- a. Identifies and discusses issues related to privacy and security in both the print and electronic environments

- b. Identifies and discusses issues related to free vs. fee-based access to information
- c. Identifies and discusses issues related to censorship and freedom of speech
- d. Demonstrates an understanding of intellectual property, copyright, and fair use of copyrighted material

This performance indicator and its related outcomes are based on an assumption that information literate students are situated in social and political environments where things such as privacy, information security, censorship and freedom of expression are understood in relation to individual civil rights, and intellectual property are understood in terms of the rights of the owner and the obligations of the users. However, these concepts appear to be culturally understood - being rights centred in Western cultures and values-centred in Eastern cultures (Brey 2007, p. 23). The issue of intellectual property, for example, reflects individualist thinking whereas the people of countries such as Sri Lanka and Vietnam employ collectivist thinking, and thus will have difficulty understanding the need to respect the notion of individual or corporate ownership of information.

Interestingly in Tools 2 and 4, there is little indication of students reflecting on ethical, legal and socio-economic issues surrounding information and information technology, other than in what Hunt and Birks (2008) describe as the students' struggle "with both the mechanics and concept of citations" (p. 71). Part 4 in the second book of Tool 2 is labelled "Activities for using and citing information ethically" and the emphasis in the section "is on citation and avoiding plagiarism: (p. 71). Similarly in Tool 4, the tutorial tells students that they will learn:

- What plagiarism is and how to avoid it;
- How to create citations according to the Modern Language Association (MLA), and the American Psychological Association (APA); and
- How to integrate and incorporate your own ideas with information sources.  
(<http://www.hawaii.edu/lilo/fall11/tutorial/module6/synthesis.php>)

While the ACRL *Standards* emphasise the importance of understanding the wider contexts of information and information technology, the tools to teach information literacy appear to focus only on the importance of citing sources to avoid plagiarism, and practical skills needed to cite sources and to paraphrase content. This aspect of the tools might actually assist librarians in developing countries since critically analysing the relevant ethical, legal and socio-economic issues might not be relevant to what are considered important cultural understandings of information.

Indeed the academic culture of the students' learning environment will embody the acceptable behaviour upon which the students will model themselves. In the West, acknowledgment of the ownership of ideas and the avoidance of plagiarism are key elements of university education whereas these are not the case in many Eastern countries.

## Conclusions

In this paper, a review of literature from cognitive psychology, education, sociocultural studies and library and information studies led to the development of a conceptual model that illustrates the key sociocultural variables affecting IL and ILE in developing countries. A range of factors that are important to learning, including the situational context, the tools of learning and their application, culture (both national and academic) and the dimensions of culture, and reflection through self- and social consciousness were identified as being important to how students learn. An examination of the ACRL definition of IL shows that it is composed of a set of inter-related concepts that students must learn to understand and apply, and their abilities will evolve by engaging with them in learning activities facilitated by IL educators such as librarians and faculty members. The conceptual model of ILE illustrates the critical factors affecting ILE in a simplified form.

An immanent critique of the ACRL *Standards* and four IL teaching tools led to the identification of major assumptions within them that demonstrate their inappropriateness for their use in developing countries such as Sri Lanka and Vietnam. For example there is an assumption in the *Standards* and their related outcomes and performance indicators that it is best to teach first about the significance of IL and its component parts then subsequently to teach the practical aspects of IL. This approach suits the predominant way of learning in Western cultures but not in Eastern cultures.

There are also assumptions in the *Standards* and the tools that librarians will have opportunities to work with faculty members collaboratively on IL education, and that students will have access to their faculty members and be willing to expose their thinking to their peers and teachers. The librarian/faculty/student relationships in the teaching and learning environments in countries such as Vietnam and Sri Lanka are very different from the relationships that are assumed in the ACRL *Standards* and the critiqued tools. In these countries IL librarians will usually work in isolation from faculty when developing new activities or adapt existing activities to suit their student's needs and their local situations. And finally, the assumptions in the *Standards* and tools about the ability and possibility of students to think critically and to understand the social construction of information, including the implications of how, where and by whom information is created, fail to recognise the cultural, political and social contexts in developing countries such as Vietnam and Sri Lanka.

In fairness to the creators of the ACRL *Standards* and the IL tools critiqued in this paper, it is necessary to acknowledge that they were developed primarily for use in American tertiary educational institutions. However, the ACRL *Standards* have become very well known and have been accepted as de-facto standards in many non-American settings, or used in other settings as source material for the development of new standards. This is not to say that there has been no progress in the development of contextually appropriate information literacy standards and tools for non-American or non-Western settings. For example, the UNESCO publication, *Understanding Information Literacy: A Primer* by Horton (2007) points out that culture and context are important factors that need to be considered when developing IL programmes. And a tool such as "The Empowering 8" was created as a standard for use by IL educators in South and Southeast Asian countries (Wijetunge & Alahakoon, 2005). Nonetheless, the Empowering 8 should be critiqued to identify any embedded assumptions that reflect aspects of Western models of IL that are unsuitable for South and Southeast Asian countries. Similarly the *Guidelines on Information Literacy for Lifelong Learning* (2006) put together by Dr Jesus Lau and produced by the IFLA Information Literacy Section

should be critiqued since the ACRL *Standards* appear to have been used as source material and there could well be assumptions in the *Guidelines* that are incongruous to the needs of ILE in developing countries.

The conceptual model of ILE developed for this paper has made it possible to see more clearly how various factors affect students' learning of IL. And the immanent critique of the ACRL *Standards* and four IL teaching tools has shown how some of the inherent assumptions within them can impact upon the various factors and therefore affect students' learning of IL in a negative way. There are implications on the educators' side of the model as well as the students' side. For example, the IL librarians in countries such as Vietnam and Sri Lanka are unable to work collaboratively with the faculty members in their institutions due to the academic culture though Tool 1 assumes that they must do so for ILE to be effective. And, though the *Standards* and tools assume that it is necessary to critically assess all information, including government information, in Vietnam and Sri Lanka IL librarians will be very cautious about providing IL learning activities that require the students to critically assess information from their governments. The students too will intuitively know not to reflect critically on their government's information, and indeed, both the IL librarians' and the students' inherent cultural tendency will be towards seeking harmony in their thinking rather than choosing to think "critically" if doing might leads to publicly debating the issues.

And, most importantly, the conceptual model depicts the evolution of the students' learning about IL as a result of their self- and social-reflections of their engagements with the IL concepts in the learning activities. Considering the local/national cultures, and the academic cultures of their educational institutions, the reflections of Sri Lankan and Vietnamese students will be shaped very much by how they perceive the utility of IL and its component concepts in relation to their various responsibilities, and to their own abilities to foster change in cultures that reflect Eastern ways of thinking that go hand in hand with high collectivism and high power distance within their societies.

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