An International Information Literacy Certificate: opportunity or dead-end?

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Abstract

This paper presents the case against developing an International Information Literacy Certificate. After defining information literacy (IL) the author identifies that there is diversity amongst those who need to learn about IL, that they have diverse needs and will be in diverse contexts. An individual's IL needs also change through that person's lifetime. The author identifies IL as a complex subject and discusses the implications of this complexity for learning, teaching and assessment. The "standards" approach to IL, ennumerating qualities and activities, is criticised. Three examples of a context-sensitive approach to IL education are given (in a university, a workplace and a school). Taking the example of the European Computer Driving Licence, the author argues that IL is like neither driving nor computer competency. It is questioned whether an IL certificate would help to raise the prestige of IFLA and librarians, and problems of consensus and practicality are discussed. The author concludes that the certificate would be a "dead-end". However, she finishes by confirming that there could still be a role for an IL foundation. She proposes that it starts with an agenda of "IL for the child", and she confirms the importance of IL in today's information society.

Context

In this paper I am putting forward a case **against** an International Information Literacy Certificate (IILC). A proposal **for** such a certificate is made in the companion paper in this session, delivered by Cristóbal Pasadas Ureña, and I refer readers to his thoughtful paper for a description of the form which such a certificate might take. I would like to thank him for circulating the paper in advance of the conference. In summary: it has been proposed that an IILC should be developed, to be administered by a foundation set up by IFLA in association with other professional bodies. The proposal foresees an internationally agreed syllabus, a questions and test base for the purposes of assessment. Licensees of the IILC (most obviously, national association members of IFLA) would partner with local institutions to deliver the certificate. The proposal is that the IILC would be suitable for people in different countries and at different levels.

Introduction

I will start by outlining the perspective on information literacy (IL) which underpins this paper. My colleague Bill Johnston and I have developed the following defining statement:

> "Information Literacy is the adoption of appropriate information behaviour to identify, through whatever channel or medium, information well fitted to information needs, leading to wise and ethical use of information in society."

This reflects a holistic vision of IL, involving not just information seeking and evaluation, but also awareness of when you need information (and when you do not), and use and communication of that information. Information behaviour might include browsing, searching and encountering information, using all channels and media (e.g. people, print, organisations, internet). The information literate person will also have an awareness of the social and cultural context in which information is being used, and legal issues to do with information use: leading thus to wise and ethical use of the information. People will also need to be *literate* in order to be information literate. One of Stephen Town's 10 axioms of IL (Town, 2003: see Appendix 1) is "Information Literacy is an extension of literacy."

This view of IL has obviously been influenced by work in the United Kingdom (UK) and in other parts of the world. One of the models which I have found particularly useful in teaching is the Society of College, National and University Libraries' (SCONUL) model of the *Seven pillars of information literacy* (SCONUL, 1999). This makes clear the spectrum of knowledge and skills required for IL. Supported by basic library and information technology skills, the model identifies seven areas in which students can develop, and which together comprise information literacy. These range from recognising the information need, through to creating new knowledge. (see Appendix 2, for a list of the headline skills and the model). I have also found Bruce's (1997) model of the *Seven faces of information literacy* illuminating. The "faces" (varying conceptions of information literacy) include an *IT Conception* through to a *Wisdom Conception*.
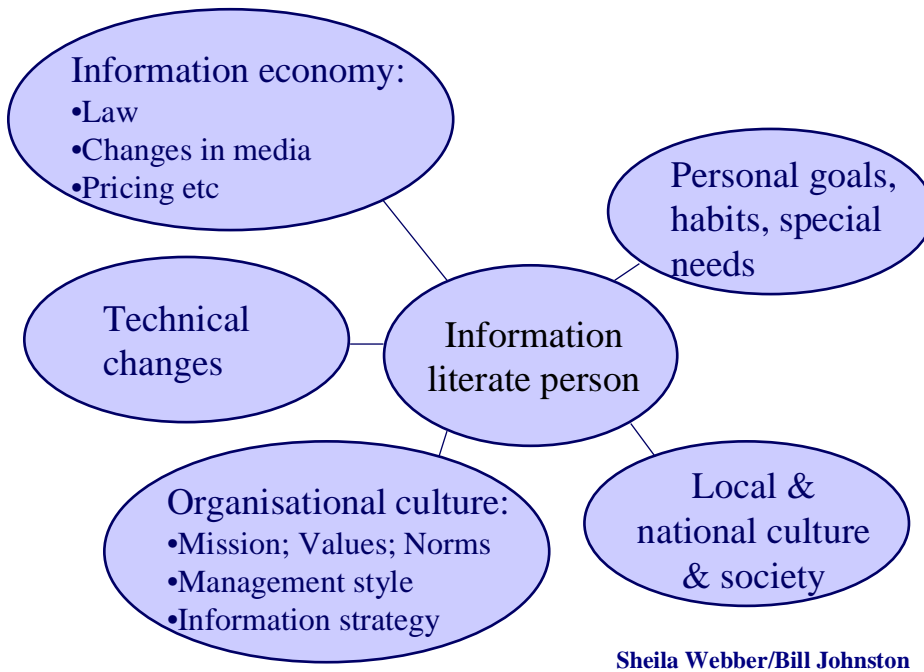
Context and complexity

In this section I will argue that context is vitally important when educating for IL, and that teaching IL is a complex matter. I will start by quoting the (US) Association of College and Research Libraries (ACRL), who note in their *Best practices* guidelines (ACRL, 2003) that a good curriculum:

"Sequences and integrates competencies throughout a student's academic career."

This already flags up the importance of context and development. People need to be aware of themselves as information literate, so that they can take some responsibility for their development of their own IL through life (see Figure 1).

Figure 1: The IL person in the changing information society

Information economy:
•Law
•Changes in media
•Pricing etc

Personal goals, habits, special needs

Technical changes

Information literate person

Organisational culture:
•Mission; Values; Norms
•Management style
•Information strategy

Local & national culture & society

Sheila Webber/Bill Johnston

People need to update their own IL because:

- Their own goals and needs change (e.g. most obviously, they have different information needs as a citizen as they get older and make life decisions);
- The culture of the organisation in which they work may change (e.g. people may change jobs within an organisation, or change employer; the organisational culture may shift with new management);
- Technological change impacts networks, communication, types and channels of information etc.;
- Changes in the information economy affect e.g. what information is free, what the law is as regards accessing and reusing information;
- There are social and cultural changes (e.g. what is expected of people at different stages of life; also people might move into a different country or culture).

IL will thus be experienced in a variety of contexts. Note that as well as different people having different experiences, the same person, as indicated above, will also experience IL in different contexts at different points of their life, namely:

1. **Formal education** (School; Further/ higher education) Here IL will help the student to perform better in his or her studies (produce better informed project reports, find and use better quality material for essays, avoid plagiarism etc.). Formal education should also lay the foundation of IL education that will enable the student to become conscious of their own strengths and weaknesses in IL, and to develop their IL once they have left formal education

2. **Workplace** – It can be argued that IL is essential for Knowledge Management and, that a Learning Organisation also requires information literate staff. If staff are to be able to:

- communicate knowledge in a variety of media (in person, via an intranet etc)
- be effective at acquiring, evaluating and selecting information (to elicit knowledge from colleagues, and combine it with external and internal information to create new knowledge);
- organise knowledge so that it can be shared with others, and
- be aware of the legal issues to do with information sharing;

then IL should be an essential aspect of staff development. The UK consultancy TFPL (see e.g. TFPL, 1999) has done quite a lot of work in this area, identifying information literate staff as

essential for knowledge management. A Learning Organisation will also benefit from staff who are able to acquire and use external and internal information to engage in "double loop learning" – not just rectifying mistakes, but learning from them by reconsidering the whole process in which the problem occurred, and questioning procedures and norms. (Argyris and Schön, 1996; Rowley, 2000) To do this, people need to be able to access and interpret information.

3. **As citizen**s – As noted above, people need IL to carry out their everyday lives: to pursue hobbies, exercise civil rights, raise children, support their healthcare needs etc. This need exists in parallel to the first two contexts, so it will be useful, for example, for a student to be able to transfer their IL capability to their private life. Increasingly there is the huge population of retired people in Western countries, who are no longer employed, but who continue to have changing, active lives. There will also be people who have fallen through the net of formal education, and/or who do not have employment. Some of these may not have benefited from education for IL, but might particularly benefit if they were information literate because of their vulnerability (e.g. those who are homeless or with special needs).

4. **People grounded in different countries and cultures.** Linguistic differences are obvious. Ethical and legal aspects of information also vary between countries and cultures. Channels and media for information communication may vary widely e.g. in predominantly oral cultures, and depending on access to technology.

Thus you have:
- Diverse people
- with diverse needs
- in diverse contexts.

This all implies complexity in the learning and teaching experience. The educator needs to tailor their strategy to the needs, stage of development and priorities of the learner, if there is to be any hope of the learner achieving success. Good pedagogic practice is "student centred learning": putting the *learner* at the centre of the experience, not the teacher, and the aim is for the learner to learn, not for the teacher to transmit knowledge. In order to learn, the student needs to be motivated, and sensitivity to the learner's needs (translated into good teaching) will help with motivation. SCONUL has done work on Critical Success Factors for information literacy which has identified the importance of strategy and motivation (Town, 2001). Town (2003) states that information literacy is contextual. Numerous authors on information literacy have stressed the need to contextualise information literacy education. For example, as already noted, ACRL's (2003) best practices guidelines say that a good curriculum "emphasizes student-centered learning" and "sequences and integrates competencies throughout a student's academic career, progressing in sophistication"; Hepworth (2000) advocates information literacy education which is integrated into the curriculum, using problem based learning.

Orr and Cribb (2003) represent many librarians' thinking when they say that

> "In recent years it has become clear that the "one off" demonstration-style information skills classes delivered out of curriculum context do not necessarily coincide with the students' need for information, are sometimes not valued by students, and do not necessarily prepare them for the challenges of research, problem-solving and continuous learning." (p43)

In a workplace context, Bawden and Robinson (2002) conclude their account of a training programme in a pharmaceutical company by saying that some general principles of information literacy could be identified for training purposes, but their experience also shows that

> "these [principles] must be contextualised, illustrated with very different examples, and presented in a very different way, to meet the needs of different groups of learners. In this

way they reflect the breadth and scope of the information literacy concept, and the challenge for trainers and facilitators in the subject." (p300)

Contextualisation in another discipline or another work process is not the whole story, since the educator also needs to take into account the stage that the learner has reached in his or her information literacy education.

Additionally, **the subject of IL is complex**, involving as it does higher order cognitive activities (critical thinking, analysis, evaluation, synthesis) and topics where it is important to reflect and compare views in order to achieve understanding (such as information society issues). Johnston and Webber (2003) identified that higher order elements are described in a number of models of information literacy. The following table (Table 1), taken from Johnston and Webber (2003), highlights some of the higher order cognitive activities in the Association of College And Research Libraries' (2000) *Information Literacy Competency Standards for Higher Education*; SCONUL's (1999) *Seven pillars* and Bruce's (1997) model of the *Seven faces of information literacy*.

Table 1: Higher order elements of information literacy (source: Johnston and Webber, 2003)

ACRL Standards	SCONUL Seven Pillars	Bruce Seven Faces
Standard Three "The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system." *Performance Indicators include:* **"3. The information literate student synthesizes main ideas to construct new concepts."** *Outcomes Include:* "1. Recognizes interrelationships among concepts and combines them into potentially useful primary statements with supporting evidence 2. Extends initial synthesis, when possible, at a higher level of abstraction to construct new hypotheses that may require additional information 3. Utilizes computer and other technologies (e.g. spreadsheets, databases, multimedia, and audio or visual equipment) for studying the interaction of ideas and other phenomena." **"5. The information literate student determines whether the new knowledge has an impact on the individual's value system and takes steps to reconcile differences. "** *Outcomes Include:* "1. Investigates differing viewpoints encountered in the literature 2. Determines whether to incorporate or reject viewpoints encountered"	*Pillar 6:* "The ability to organise, apply and communicate information to others in ways appropriate to the situation • to cite bibliographic references in project reports and theses • to construct a personal bibliographic system • to apply information to the problem at hand • to communicate effectively using appropriate medium • to understand issues of copyright and plagiarism" *Pillar 7* "Synthesise and create. The ability to synthesise and build upon existing information, contributing to the creation of new knowledge."	*Category six:* The knowledge extension conception. Information literacy is seen as working with knowledge and personal perspectives adopted in such a way that novel insights are gained. *Category seven:* The wisdom conception. Information literacy is seen as using information wisely for the benefit of others. **Sources:** Association of College And Research Libraries. (2000); SCONUL (1999); Bruce (1997)

This demands complexity in the learning, teaching and assessment strategy of the educator. Biggs (1999) talks about aligning learning, teaching and assessment strategy: it is no good setting a complex learning outcome and thinking you can assess it by setting a simple multiple-choice test. (See also Webber and Johnston, 2003) The key elements highlighted in Table 1 cannot be taught by rote learning, nor can they be satisfactorily assessed by "efficient" methods such as multiple choice questions. This makes the idea of a "Test and question base" (as suggested for an IL certificate) very problematic. A stand-alone class in information literacy that has recognition in the UK and had been passed by several hundred people at time of writing is the Open University's MOSAIC course. This is a credit-bearing class that can be taken by anyone studying with the open University (the

well-established UK distance-learning university). The assessment for this involves individual search exercises, in several stages (based on the SCONUL model). Critical reflection on what went well and what did not is an important part of the assessment (Dillon, 2003). Reading about and discussing information literacy is also part of the class. It is definitely not dependent on simple multiple choice questions for assessment.

Once you "unpack" the many outcomes demanded (explicitly or implicitly) by information literacy programmes it also becomes evident that you need time to achieve them. Some subjects may become more relevant to a learner over time, and thus need revisiting periodically in increasing depth. You need a variety of teaching, learning and assessment approaches to match the different outcomes. Even IL "basics" like teaching people to "recognise an information need" or "Identify a concept" are really complex activities, not easily achieved for all students (if such things were easy, more people would be good at searching!)

I have heard some people say that the idea of librarians teaching "wise and ethical use" of information is too high-flown and ambitious. However, there is concern around the world about the growth of plagiarism, and teaching people about issues to do with plagiarism (respecting other people's intellectual property, copyright laws etc.) has become a priority in many institutions. Many people are also concerned about the misuse of information by Governments and officials, and would like citizens to become more educated about how information can be abused and misused to deceive and disempower them. Some cultures are particularly sensitive about information being used appropriately in a way that does not offend. Just looking at other sessions at this IFLA conference shows that some librarians at least see these as valid and important areas to tackle.

To summarise this section:
- Different people have different contexts and priorities
- Even one person will have different motivations and needs between birth and death
- Education for IL needs to respond to these learners' different contexts and needs
- IL itself is a complex subject with "difficult" bits: and the difficult bits are important!

I can therefore already make the point that if you aggregate the different learners' needs and the different pedagogic approaches required by different aspects of IL in different contexts, then you have an impossible agenda for one international IL certificate. A colleague who I consulted when producing this paper, Ola Pilerot of Skovde University in Sweden, felt that a Standards-focused approach

> "implies that everyone is the same, have the same way of dealing with (information) problems and think the same way and are in the same situation or contexts."

An International IL Certificate trying to cater for all citizens at all ages and stages will have a lot of problems!

The problem with a "Standards" approach

I will go on to look more specifically at a standards based approach, the alternatives to the standards based approach, and the problems with a certificate solution. I am critiquing the formulation of standards for IL, because there seem to be similar problems with the two approaches. Calling something a "standard" immediately indicates that there is some quantitative measure that can be applied, or some specific process that can be described. However, IL is a subject, not a set of tasks or activities, nor is it a simple process or product. Having a purely quantitative standard, or a list which ennumerates what is required, is not appropriate.

Problems with an approach to information literacy that is based on listing desirable qualities and skills include:

1. They are more time-bound, and fixed into their particular context (culture, level of education etc.). This means that, if applied in another context, there may be some elements which are inappropriate or puzzling, and others which are missing. Some aspects may be dealt with in too much detail, others in not enough detail. Being ennumerative, the lists of skills and qualities will need regular updating (which will be problematic if people have built educational programmes around them: this very issue may hold back updating). Ennumerative cataloguing rules and classification schemes are no longer seen as desirable, and I would contend that ennumerative IL standards are equally problematic.

2. There is a danger that learners (and also educators) will get bogged down in individual elements, and lose sight of the big picture. The learner may focus on a detail and lose a sense of how the elements of IL connect together and interact. In particular it becomes a problem as some areas are more straightforward to learn and teach than others. Again referring to Bawden and Robinson's account of work with staff in a pharmaceutical company

> "It is also worth noting that training on 'traditional' and specific library/information issues – such as choice of resources and effective search strategies – was considerably easier to provide, and to assess and evaluate, than broader aspects, such as effective use of information and identification of information need." (Bawden and Robinson, 2002).

The result may be that the "easier" areas are taught, and the more challenging areas neglected. This is worrying. Identifying what your needs are, and knowing when you need to act to fill your needs, is a fundamental part of information literacy, and studies (e.g. of businesspeople) have shown that people do not always realise when they need information or how to articulate their need. This problem may be made worse by the next issue:

3. Standards may list highly complex elements next to much simpler ones. For example, in Table 1 the ACRL standard item

> "[the student] Recognizes interrelationships among concepts and combines them into potentially useful primary statements with supporting evidence"

is a very challenging learning outcome which requires further unpacking (the student has to understand what a "concept" is, be able to pick out concepts in a text, recognise ways in which concepts might be related, summarise and synthesise material using their own words etc.) This is a problem for educators devising curricula based on the standards, as well as for learners. Complex areas such as this demand an appropriate pedagogic response, which will help the learner to develop over time and provide formative and summative feedback.

4. The IL standards have been drawn up chiefly by library and information professionals. Whilst it is obviously desirable that the standards should have been produced by experts in the field, so library and information professionals are the right people to be involved, there could be problems. One is that at the time when, for example, the ACRL standards were drawn up, there was not much familiarity with good pedagogic practice in the library and information profession. There may be a preoccupation with elements that the profession is particularly keen on e.g. Boolean Logic. There may also be a bias towards a view of IL that applies more to humanities and social sciences than to scientific disciplines.

At the end of all this there is the final danger that the learner and the teacher can feel they have "done" information literacy when all the qualities and skills have been "ticked off" the list, even if some elements have not been meaningfully addressed. For example, if the above ACRL outcome had only been addressed by one exercise or assignment in isolation, then both learner and teacher might be happy to tick that outcome as "done", but the learner still might not feel confident in identifying a "concept" except in this one exercise.

Contrast: examples of using IL frameworks and models in context

I will draw on three examples, from three different sectors, to provide examples of how IL is being addressed in a complex and responsive manner, whilst drawing on IL models and frameworks. The first example is Queensland University of Technology (QUT), in Brisbane, Australia. QUT has an institutional framework, based on the Australian Standards for IL (Peacock, 2002). However, work has been done to map these firstly to levels of study (identifying the elements which are important at different stages), and then to specific subjects and courses. Hobbs and Aspland (2003) give an example of how IL has been embedded into a revised BEd course at QUT.

The second example is from the workplace: Unilever Research and Development in the UK. Unilever is a large multinational corporation. Donnelly and Craddock (2002) have described how they developed an IL programme that is focused on Unilever business objectives. Their strategy exploits the fact that project teams are formed to work on developing new products: the information professionals aim to have an "information discovery" session at the start of the project. This is the time when the researchers will be more open to help and advice about how they can improve their information seeking, and it means they are encouraged to think about information seeking (and the help the information professionals can give) from the start of the project. These "discovery" sessions fit into an overall strategy that includes online help, one-to-one sessions etc.

The third example is from a British school. Barrett and Danks (2003) describe how they have developed an IL strategy with key stages and core lessons, but these core lessons:
> "are internalised by staff, who now deliver many of them, and they are part of a spiralling curriculum in which the skills and concepts are revisited at ever-increasing levels of sophistication throughout a student's career."

Thus, in each case, an IL strategy is being developed which takes account of the learner's specific desires, needs and situation: there is no "one size fits all."

IL and the European Computer Driving Licence (ECDL): a useful comparison?

It has suggested that the ECDL, although not a perfect model, could be taken as an example of an international certificate that has "worked." I would say that this is a dangerous analogy because:

1.   IL is not like driving! For example:

Driving	IL
You know when you need to drive: you are in a vehicle!	Recognising when you need information is not always easy
Many standardisations of layout in a car – even internationally	Wide variations in information types, channels and formats, with many cultural and linguistic differences.

2.   IL is not computer competency! For example:

Computer competency	IL
You generally know when to use a computer package	Recognising when you need information is not always easy
The "which package?" question (e.g. Excel or Word) is not so hard	The "Which information type/channel/source?" question is hard (which is why people often default to a source they have used before, even if it is not appropriate!)

I would say that it would be better to compare information literacy with management. Management is a subject which is now taught at undergraduate and postgraduate level, and research into various branches of management is carried out. At the same time most people are encouraged to develop their personal management skills, through formal education (e.g. managing teams in group assignments) and in the workplace. Through training and practice people are encouraged to develop their own management style, and to continue to improve as a manager, dealing with a variety of situations. Similarly, I see it as important that people develop their own information literacy "style" through life, and they can benefit from education and training, together with reflective practice of information literacy in different situations.

Other problems with a Certificate approach

Firstly, there is the question of whether a certificate would really have the effect of raising the profile of IFLA and of library and information professionals. Such a certificate could be seen as a "me too" product: trying to cash in on success of the ECDL. The certificate could be seen as a simple, low-status qualification, and this low-status perception might reinforce anti-librarian prejudice in countries where librarians are fighting against low status, and lose librarians ground in countries where they are perceived as higher-status. There is also the issue of whether the certificate would be seen as a valid and useful qualification in many countries.

Secondly, there is the issue of outcomes and impact. Would such a certificate, with a prescribed and probably slowly-updated curriculum and restricted assessment, develop information literate citizens with:
- Consciousness of themselves as information literate people;
- Consciousness of his or her level of IL competence;
- Ability and motivation to transfer learning into new contexts;
- Lifelong learning, including ability to self-assess and know when he or she needs to learn?
The effectiveness of the ECDL (in terms of meeting meaningful learning outcomes) has itself been questioned.

Thirdly, there are practical issues. If there is no consensus amongst librarians on the curriculum for, and the basic desirability of, a certificate – can it really succeed? This IFLA session (and the people I consulted in writing this paper) seem to indicate that such a consensus does *not* exist. Creating the content and infrastructure for an international certificate would be incredibly time- and energy-consuming. Both setting it up and maintaining it are likely to be administrative nightmares: consider the need for negotiation, agreements between many different parties, translation, constant updating and consultation concerning the curriculum, and quality assurance. Going back to the issue of a lack of consensus: the ECDL only works as much as it does because there are sufficient countries and institutions that are willing to implement it without making too many amendments for local consumption. It seems unlikely that there would be a similar level of willingness as regards an IL certificate.

Thus I would sum up my argument by saying that I see an international IL certificate as a dead-end, not an opportunity.
- It could encourage complacency and superficiality in both learner ("done the certificate! that's me for life!") and educators / administrators ("if we've offered the certificate, no need to do more IL work!"). It could be said to trivialise IL.
- The fact that it is generic, rather than tailored to a specific context, would lead to a lack of engagement on the part of the learner and a failure to transfer skills and knowledge to a new context

- The test and question base approach (rather than more thoughtful assessment) would have limited use for lifelong learning
- A certificate would be a huge drain on the time and energy of those involved in trying to set it up, but the lack of wholehearted support from the library and information community will make widespread takeup questionable.

IL: still a foundation for the future

I still feel that there could be a role for an international IL foundation, without the certificate. Librarians and educators would like to have examples and guidelines on the theory and practice of learning, teaching and assessing information literacy. This could range from complete curricula to "learning objects" (individual exercises or examples in digital form that can be incorporated into teaching). These examples and guidelines should be based on findings from research into information behaviour, on good pedagogy and on sound knowledge of learners in their individual contexts.

An IL foundation could be involved in developing a strategy for IL as keystone for the information society and knowledge economy. I would propose, as a first step, a campaign on *Information Literacy for the Child*. This could focus on the rights of the child to be information literate as well as literate. It would encompass media literacy as part of information literacy (since, to me, "media literacy" is just a specific example of being able to evaluate and select information). Such a campaign could also link in with concepts of children's development of creativity and critical faculties. I would argue that such a focus would be a better point at which to start a campaign, since:
- It is important to start education for IL young, developing it through all educational stages;
- Imaginative work on IL for children has already been done in some countries;
- Although I know that some countries do not have school librarians, aiming at an earlier level of education might still bring in the possibility of influencing a wide range of countries (rather than just those which had many people going on to higher education)
- There would not need to be a concern about "diagnosing" students' level of competence, since one would be starting from an early age.

Whatever IFLA's response on this issue, I look forward to a bright future for IL, because I believe it is vitally important for the welfare and development of people around the world. Librarians have a crucial role to play in developing information literate citizens, and I hope that we will seize this role.

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Appendix 1
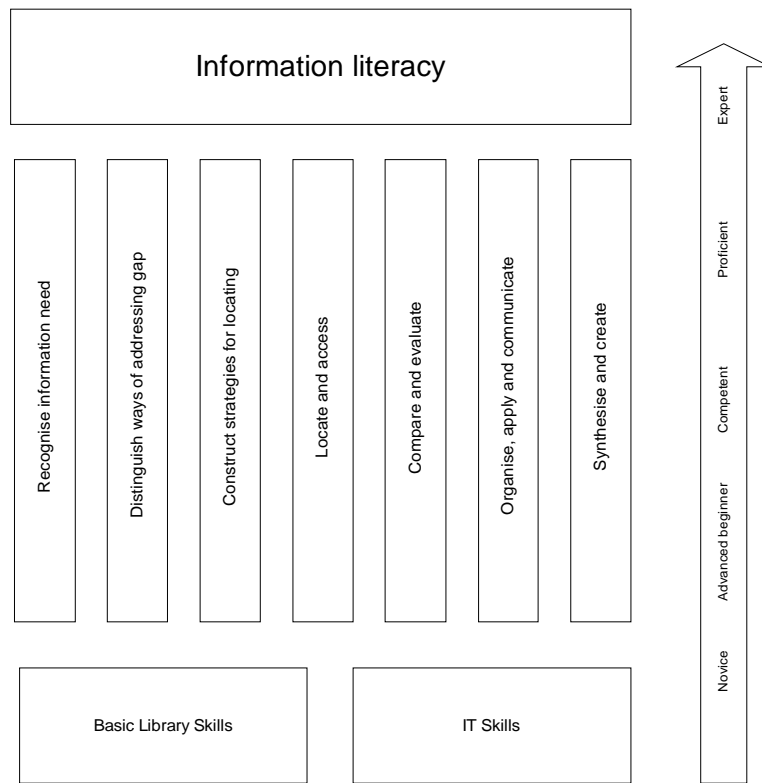
Town's (2003) 10 axioms.
1. Information Literacy is an extension of Literacy
2. Information Literacy is a combination of knowledge, skills and practice
3. Information Literacy is not IT or ICT literacy
4. Information Literacy may depend on other competences, especially in the digital world, but it is a distinct entity
5. Information Literacy is a personal lifelong learning process: a through life need
6. Information Literacy programmes should be embedded and integrated with other learning programmes
7. Information Literacy is contextual
8. Information Literacy is contextual by local resource
9. Information Literacy is contextual by subject
10. Information Literacy requires knowledge of relevant information science

Appendix 2

SCONUL 7 pillars model: headline skills
1. Recognise the information need
2. Distinguish ways of addressing the gap
3. Constructing strategies for locating
4. Locate and access information
5. Compare and evaluate information
6. Organise, apply and communicate information
7. Synthesise and create

Seven pillars of information literacy

Information literacy

Recognise information need

Distinguish ways of addressing gap

Construct strategies for locating

Locate and access

Compare and evaluate

Organise, apply and communicate

Synthesise and create

Novice | Advanced beginner | Competent | Proficient | Expert

Basic Library Skills

IT Skills

Source: SCONUL. (1999)

(10 September 2003)