Information Literacy—Competency Standards and Performance Indicators: An Overview

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ABSTRACT

Information Literacy (IL) is an area of interest to librarians and information professionals and it is pivotal to the pursuit of lifelong learning process. The paper explains the concept of IL and brings out its standards and performance indicators enunciated by IFLA and UNESCO in the context of school libraries and higher education. The importance of IL for school libraries and public libraries are highlighted. It also discusses the IL scenario at international level and in India and enumerates the UNESCOs declaration at Prague towards the Information Literate Society. Finally, it stresses for the development of IL policy in the Indian education system.

Keywords: Information literacy standards, performance indicators, information society, public libraries, school libraries, India.

1. INTRODUCTION

IL has been the subject of many studies over many years. The originating concept of information literacy is generally attributed to Paul Zurkowski in 1974. Indeed, since 1974 IL has been an area of increasing interest to librarians and information professionals and there is a huge amount of literature on this topic. However, the majority of publications have come from the industrialised, English-speaking countries, especially from the United States and Australia. IL is related to information technology skills, but has broader implications for the individual, the educational system, and for society IL is a natural extension of the concept of literacy. IL education is the catalyst required to transform the information society of today into the learning society of tommorrow. IL is generally seen as pivotal to the pursuit of lifelong learning, and central to achieving both personal empowerment and economic development. IL is a key component and contributor to lifelong learning. IL competency ensures maximum utilisation of the information resources as well as optimisation of information handling capabilities. IL competency extends learning beyond formal classroom settings and provides practice with self-directed investigations as individuals move into internships, first professional positions, and increasing responsibilities in all arenas of life. Because IL augments students’ competency with evaluating, managing, and using information, it is now considered by several regional and discipline-based accreditation associations as a key outcome for college students and for “on campus” students.

2. IL: DEFINITIONS AND MEANING

“Information literacy is an intellectual framework for recognising the need for understanding, finding, evaluating, and using information. These are activities which may be supported in part by fluency with information technology, in part by sound investigative methods, but most importantly through critical discernment and reasoning. IL initiates, sustains, and extends lifelong learning through abilities that...
may use technologies but are ultimately independent of them”3.

"Information literacy—the ability to find and use information—is the keystone of lifelong learning.”

IL is also the ability to access, evaluate, and use information from a variety of sources. IL is a set of abilities requiring individuals to "recognise when information is needed and have the ability to locate, evaluate, and use effectively the needed information." IL in terms of a set of competencies that an informed citizen of an information society ought to possess and to participate intelligently and actively in that society. Most current definitions of IL are built on that issued by ALA’s Presidential Committee on Information Literacy: ‘To be information literate an individual must recognise when information is needed and have the ability to locate, evaluate and use effectively the information needed... Ultimately information literate people are those who have learned how to learn’4.

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 legally5.

In nutshell, IL has five broad abilities within the context of this continuum and a lifelong learning context:

- Recognising the need for information
- Knowing how to access information
- Understanding how to evaluate information
- Knowing how to synthesise information
- Being able to communicate information

3. SEVEN FACES OF IL

In her book Seven Faces of Information Literacy, Christine Bruce6 has identified following seven categories of IL as experienced by Australian educators in two universities:

(i) Information technology conception—using information technology for information retrieval and communication;
(ii) Information sources conception—finding information;
(iii) Information process conception—executing a process;
(iv) Information control conception—controlling information;
(v) Knowledge construction conception—building up a personal knowledge base in a new area of interest;
(vi) Knowledge extension conception—working with knowledge and personal perspectives adopted in such a way that novel insights are gained; and
(vii) Wisdom conception—using information wisely for the benefit of others.

4. IL—STANDARDS AND PERFORMANCE INDICATORS

IL standards and rubrics provide behavioural descriptors to guide curriculum design and evaluation of student learning. The IL standards include three basic components: access, evaluation and use of information. These core goals are found in most of the standards created by library associations, such as the relevant contributions of AASL, ACRL, SCONUL and the Australian and New Zealand Institute for IL, followed by the work of other countries, like Mexico, and individual educators.

4.1 IFLA IL Standards

The IFLA IL standards are based on these international experiences and contributions. The IFLA standards7,8 are grouped under the three basic IL components.

Access

The user access information effectively and efficiently.

Definition and articulation of the information need:

- Defines or recognises the need for information
- Decides to do something to find the information
- Express and defines the information need
- Initiates the search process.
Location of information
- Identifies, and evaluates potential sources of information
- Develops search strategies
- Accesses the selected information sources
- Selects and retrieves the located information.

Evaluation
The user evaluates information critically and competently.

Assessment of information:
- Analyses, and examines, extracting information
- Generalises and interprets information
- Selects, and synthesizes information
- Evaluates accuracy and relevance of the retrieved information

Organisation of information:
- Arranges, and categorizes information
- Groups and organizes the retrieved information
- Determines which is the best and most useful information.

Use
The user applies/uses information accurately and creatively.

Use of information:
- Finds new ways to communicate, present and use information
- Applies the retrieved information
- Learns, or internalizes information as a personal knowledge
- Presents the information product

Communication and ethical use of information:
- Understands ethical use of information
- Respects the legal use of information
- Communicates the learning product with acknowledgement of intellectual property
- Uses the relevant acknowledgement style standards.

4.2 IL Standards, Indicators and School Libraries

School library is a primary source for information and curriculum support. School library programme functions as the information center for the school by providing access to a full range of information resources, in both traditional and electronic format, and opportunities to acquire IL skills and integrated and interdisciplinary learning activities which support the curriculum. The mission of school library programme is to ensure that all students and staff become literate, lifelong learners and effective and responsible users of ideas and information.

The following three categories, nine standards, and twenty-nine indicators describe the content and processes related to information that students must master to be considered well educated.9,10

Category I: Information Literacy

The student who is information literate:

Standard 1: Accesses information efficiently and effectively, as described by the following indicators:
(i) Recognises the need for information
(ii) Recognises that accurate and comprehensive information is the basis for intelligent decision making
(iii) Formulates questions based on information needs
(iv) Identifies a variety of potential sources of information
(v) Develops and uses successful strategies for locating information.

Standard 2: Evaluates information critically and competently, as described by the following indicators:
(i) Determines accuracy, relevance, and comprehensiveness
(ii) Distinguishes among facts, point of view, and opinion
(iii) Identifies inaccurate and misleading information.
(iv) Selects information appropriate to the problem or question at hand.

Standard 3: Uses information effectively and creatively, as described by the following indicators:
(i) Organises information for practical application
(ii) Integrates new information into one's own knowledge
(iii) Applies information in critical thinking and problem solving
(iv) Produces and communicates information and ideas in appropriate formats.

**Category II: Independent Learning**

The student who is an independent learner is information literate and:

**Standard 4:** Pursues information related to personal interests, as described by the following indicators:

(i) Seeks information related to various dimensions of personal well-being, such as career interests, community involvement, health matters, and recreational pursuits

(ii) Designs, develops, and evaluates information products and solutions related to personal interests.

**Standard 5:** Appreciates and enjoys literature and other creative expressions of information, as described by the following indicators:

(i) Is a competent and self-motivated reader

(ii) Derives meaning from information presented creatively in a variety of formats

(iii) Develops creative products in a variety of formats.

**Standard 6:** Strives for excellence in information seeking and knowledge generation, as described by the following indicators:

(i) Assesses the quality of the process and products of one’s own information seeking

(ii) Devises strategies for revising, improving, and updating self-generated knowledge.

**Category III: Social Responsibility**

The student who contributes positively to the learning community and to society is information literate and:

**Standard 7:** Recognises the importance of information to a democratic society, as described by the following indicators:

(i) Seeks information from diverse sources, contexts, disciplines, and cultures

(ii) Respects the principle of equitable access to information.

**Standard 8:** Practices ethical behaviour in regard to information and information technology, as described by the following indicators:

(i) Respects the principles of intellectual freedom

(ii) Respects intellectual property rights

(iii) Uses information technology responsibly.

**Standard 9:** Participates effectively in groups to pursue and generate information, as described by the following indicators:

(i) Shares knowledge and information with others

(ii) Respects others’ ideas and backgrounds and acknowledges their contributions

(iii) Collaborates with others, both in person and through technologies, to identify information problems and to seek their solutions

(iv) Collaborates with others, both in person and through technologies, to design, develop, and evaluate information products and solutions.

The items related to IL describe the core learning outcomes that are most obviously related to the services provided by school library media programs.

The items related to the other two other areas— independent learning and social responsibility—are grounded in information literacy and describe more general aspects of student learning to which school library media programmes also make important contributions.

The latter two categories are build upon the first so that, taken together and pursued to the highest levels, the standards and indicators present a profile of the information literate high-school graduate: one who has the ability to use information to acquire both core and advanced knowledge and to become an independent, lifelong learner who contributes responsibly and productively to the learning community.

4.3 **IL Competency Standards and Performance Indicators for Higher Education**

IL Competency Standards for Higher Education provides a framework for assessing the information
literate individual. It also extends the work of the American Association of School Librarians Task Force on IL Standards, thereby providing higher education an opportunity to articulate its information literacy competencies with those of K-12 so that a continuum of expectations develops for students at all levels. It comprises five standards and 22 performance indicators.

The competencies presented here outline the process by which faculty, librarians and others pinpoint specific indicators that identify a student as information literate11.

**Standard One: "The information literate student determines the nature and extent of the information needed".**

**Performance Indicators**

(i) The information literate student defines and articulates the need for information

(ii) The information literate student identifies a variety of types and formats of potential sources for information

(iii) The information literate student considers the costs and benefits of acquiring the needed information

(iv) The information literate student reevaluates the nature and extent of the information need.

**Standard Two: "The information literate student accesses needed information effectively and efficiently".**

**Performance Indicators**

(i) The information literate student selects the most appropriate investigative methods or information retrieval systems for accessing the needed information

(ii) The information literate student constructs and implements effectively-designed search strategies

(iii) The information literate student retrieves information online or in person using a variety of methods

(iv) The information literate student refines the search strategy if necessary

(v) The information literate student extracts, records, and manages the information and its sources.

**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**

(i) The information literate student summarises the main ideas to be extracted from the information gathered

(ii) The information literate student articulates and applies initial criteria for evaluating both the information and its sources

(iii) The information literate student synthesises main ideas to construct new concepts

(iv) The information literate student compares new knowledge with prior knowledge to determine the value added, contradictions, or other unique characteristics of the information

(v) The information literate student determines whether the new knowledge has an impact on the individual's value system and takes steps to reconcile differences

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

(vii) The information literate student determines whether the initial query should be revised.

**Standard Four: "The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose".**

**Performance Indicators**

(i) The information literate student applies new and prior information to the planning and creation of a particular product or performance

(ii) The information literate student revises the development process for the product or performance

(iii) The information literate student communicates the product or performance effectively to others.

**Standard Five: "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".**

**Performance Indicators**

(i) The information literate student understands many of the ethical, legal and socio-economic
issues surrounding information and information technology

(ii) The information literate student follows laws, regulations, institutional policies, and etiquette related to the access and use of information resources

(iii) The information literate student acknowledges the use of information sources in communicating the product or performance.

All the above stated standards identify that the information literate person

- Recognises the need for information and determines the nature and extent of the information needed
- Finds needed information effectively and efficiently
- Critically evaluates information and the information seeking process
- Manages information collected or generated
- Applies prior and new information to construct new concepts or create new understandings
- Uses information with understanding and acknowledges cultural, ethical, economic, legal, and social issues surrounding the use of information.12

5. IL AND SCHOOL LIBRARIES

Information literacy standards for libraries aims at:

- Moving away from "how to use the library" towards teaching the information process—recognising a need, meeting it, evaluating the result
- Moving away from limited and discrete library assignments towards integrated instruction with classroom teachers
- Moving away from basic technology skills towards information problem-solving skills that may or may not involve technology.13

5.1 Why is IL Important for School Libraries?

Students need their own internal navigation system to manage the information rich environment that now surrounds them. Without the ability to sift, process, and evaluate information, students will be literally unable to function. IL requirements are being integrated into state and national curriculum standards. School librarians are the natural in-house experts for teaching both students and colleagues how to find, evaluate and use information effectively.

5.2 Shift to IL—Advantages to School Libraries

- School libraries have a long history of instruction.
- School libraries have a captive audience.
- School librarians often enjoy close working relationships with teachers.
- School librarians often have a teaching background.
- Schools may have computer classes that ensure basic technology skills.
- Community concerns about Internet use can be used to encourage a curriculum-wide focus on evaluation and critical thinking.

5.3 Shift to IL—Challenges for School Libraries

- School libraries and librarians are in danger of being seen as "not necessary now that we have the Internet" by schools under budget constraints
- School budgets may not allow for advances in information technology
- Community concerns about Internet use can be used to resist technology and student-driven Internet use
- Teachers and computer lab staff may resist collaboration and change
- Students tend to resist evaluation when information is so readily available.

6. IL AND PUBLIC LIBRARIES

The most pertinent role of the public library is a supporting one. IL will continue to be a moving target for public libraries. If the concept of information literacy is taken to its fullest extent, the challenge of the public library is to get involved in the knowledge construction process of school children in collaboration with school teachers and school librarians. The challenge for the public library is to consider how to provide intellectual access and actively support the construction of knowledge of its target groups.

The public library is one type of library in a continuum of libraries concerned with IL and lifelong learning. It has a major part to play, if it decides not only to provide readymade answers and access to resources, but takes on an educational role
being actively involved in the knowledge construction processes of its target groups in collaboration with other stakeholders.

Public library authorities and public librarians should impart IL competencies to the public library users. The importance of public libraries would be felt more strongly, if the public libraries attract common citizens and younger generations and such librarians meet the information needs of all walks of user. Public libraries can be a vital force in developing and serving information literate citizens. By responding effectively to ever-changing literacy needs, public libraries can be a welcoming oasis in the Information Age.

6.1 Why is IL Important for Public Libraries?

All citizens need their own internal navigation system to manage the information rich environment that now surrounds them. Public libraries play a special role in bridging the "digital divide" between those with home computers and those without. Citizens who lack the ability find, evaluate and use information effectively may be left behind in terms of job opportunities, lifelong learning, quality of life, and even access to basic services. Like basic literacy and reading, IL is a natural fit for public libraries.

6.2 Shift to IL—Advantages to Public Libraries

- Public libraries are already key places for information access.
- Public librarians know what people want and can tailor learning to high-interest areas.
- Public fascination with Internet use can be used to encourage a district-wide focus on both technology training and information literacy.
- Public concern with Internet use can be used to help government recognize the key role libraries play in both providing access and teaching critical thinking and evaluation skills.

6.3 Shift to IL—Challenges for Public Libraries

- No captive audience, the audience is diverse and can be hard to reach
- Public library patrons expect service, not teaching, at the reference desk
- Public library patrons often need technology literacy as well as IL
- Instruction is relatively new to public libraries
- Information literacy standards for public libraries do not exist.

7. IFLA’S ROLE IN IL IN THE 21ST CENTURY

The role of International Federation of Library Associations (IFLA) in defining IL in the future is one of balance and inclusiveness. IFLA has a role in broadening the practical definition to include all forms of IL for all people. IFLA has included information literacy statements in many of its policy documents, including The IFLA Internet Manifesto, The IFLA/UNESCO School Library Manifesto, and The UNESCO Public Library Manifesto. More recently, one can see the impact of IFLA's activities in section C4 of the World Summit of the Information Society Plan of Action, which reads, "Everyone should have the necessary skills to benefit from the Information Society" and goes on to refer to ICT (Information and Communication Technology) literacy and later e-literacy. However, there is much more work to be done in specifying how ICT literacy and e-literacy will be developed and implemented in tandem with the delivery of the ICT.

In addition to continuing its IL related lobbying efforts and partnerships with other organisations, IFLA has a role in supporting the creation of standards against which librarians and libraries can evaluate all forms of IL, in supporting and valuing all forms of IL, and in continuing to provide various forums in which all interested parties can share their successes in defining IL in their own environments.

8. IL SCENARIO AT GLOBAL LEVEL

IL has become a global issue calling for greater attention. As a result several countries have taken initiatives in starting National and International programmes. The UNESCO, IFLA, ALA and host of other organisations and associations have developed ample number of plans and strategies. One such worth mentioning attempt is by the UNESCO. Its famous Prague declaration entitled, 'Towards an Information Literate Society,' is an outcome of the IL Meeting of Experts (20-23 September 2004, Geneva) that highlights the immediate actions to be taken for the promotion of IL by all the countries in the world. The significant aspects listed in the document are given below:

(i) The creation of Information Society is key to social, cultural and economic development of nations and communities, institutions and individuals in the 21st century and beyond
(ii) IL encompasses knowledge of one's information concerns and needs, and ability to identify locate, evaluate, organise and effectively create, use and communicate information to address issues or problems at hand; it is a prerequisite for participating effectively in the information society, and is part of the basic human right of lifelong learning.

(iii) IL, in conjunction with access to essential information and effective use of ICT use of information and communicating technologies, plays a leading role in reducing the inequalities within and among countries and peoples and in promoting tolerance and natural understanding through information use in multicultural and multilingual contexts.

(iv) Governments should develop strong inter disciplinary program to promote IL nationwide as a necessary step in closing the digital divide through creation of an information literate citizenry an effective civil society and a competitive workforce.

(v) IL is a concern to all sectors and should be tailored by each to its specific needs and context.

(vi) IL should be an integral part of education for all, which can contribute critically to the achievement of the United Nations Millennium Development Goals, and respect for the Universal Declaration of Human Rights.

In the last decade IL has become a global issue and many IL initiatives have been documented throughout the world, with particularly strong efforts and examples in North America, Australia, South Africa and Northern Europe. These programmes addressed many concerns relative to ICT and information skills. In education, teachers, librarians and others are working to integrate information skills instruction within the curricula to achieve relevant learning outcomes.

In the US and Australia, government recognition of information competencies has been informed by high-profile IL led by the profession. Examples include the ALA Presidential Committee on Information Literacy (1987), US Forum on Information Literacy (1989), Association of College and Research Libraries Institute for Information Literacy (1997) and Information Literacy Competency Standards (2000), Australian Library and Information Association Information Literacy Task Force (1997), Australia and New Zealand Institute for Information Literacy and Australian Universities Librarians Information Literacy Standards (2000).

There is also a Nordic Information Literacy Institute and IFLA Sectional Committee on Information Literacy which is being established.

9. IL IN INDIA

In India concept of IL in the library and information science (LIS) literature is very recent, but related terms, concepts and services are present in research and practice in India during the 1990s. IL cuts across many different disciplines and across professional and even political agendas: librarians, teachers and faculty, experts in educational technology, learning facilitators, all contribute to the training in IL of citizens, even while unaware of the concept and its implications. In recent reviews in primary and secondary compulsory education and the higher education sectors, all these are related in several ways to the IL experience. Recording the evolution and achievements of IL in India is not an easy task because of its great variety, but in recent years LIS institutions in India have gone through an accelerated pace in development which certainly has had a strong positive influence for all IL-related activities and services and for the widespread acceptance of the concept itself. A number of seminars and workshops are being conducted in India, thanks to the generous grants from UNESCO. In addition to this universities are conducting seminars and symposia. For example, the University of Madras has organised a National seminar on Information Literacy and Higher Education during 29-30 January 2007.

10. CONCLUSION

IL guidelines can be reviewed, and changed (adapted) by librarians according to the priorities of their institution, so that IL elements can be better suited to local or national needs. Local budget, policies, procedures, and priorities need to be taken into account in their application. The guidelines are a checklist of subjects to keep in mind during the planning and implementation of IL programme or to reinforce previous information literacy work. Information professionals must keep in mind that they need to do whatever they can with the resources that they may have. It is better to do something than to wait for the crafting of the perfect IL programme.

IL demands a new way of thinking about learning and teaching which may be in conflict with cultural standards and expectations concerning the roles of students and educators. Incorporating IL across curricula, services, the collaborative efforts of faculty, librarians, lectures and by leading discussions. Faculty
also inspire students to explore the unknown, best to fulfill information needs, and monitor students’ programmes and services; organise, of access to information; who seek information and staff development among faculty, librarians, initiate IL programmes, programmes, and provide ongoing resources to sustain them. IL programme is well positioned to develop these skills, thanks to its learning-how-to-learn framework, which is fully articulated in the IL standards devised by various associations (ACRL, IFLA, ALA, ALIA, ANZIIL etc.). There is little recognition of the learning-how-to-learn or the knowledge construction approaches in the Indian education system, and these omissions should be addressed through the development of an IL policy that is embedded in Indian national learning agenda.

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