

Australian and New Zealand Information Literacy Framework *

Australian and New Zealand Institute for Information Literacy

Overview

Provenance

The Australian and New Zealand information literacy framework is derived, with permission, from the Association of College and Research Libraries' (ACRL) Information literacy competency standards for higher education. The concepts and text have been adapted and updated to incorporate recent local and international understandings of information literacy education. Sometimes the ACRL text has been left intact. Elsewhere it has been reworded and paraphrased. Those wishing to cite this overview should also consult the original text in the ACRL introduction to the standards.¹

Endorsement and promulgation of the Framework by policy makers, educational institutions, professional and educational associations is encouraged. It may be freely used and adapted for a specific context, subject to acknowledgment of its US and Australasian provenance. The Framework is a living document, which will evolve to reflect new understandings of information literacy.

Information literacy

The key characteristic of the post industrial 21st century is that it is information abundant and intensive. Information literacy is thus required because of the ongoing proliferation of information resources and the variable methods of access. Individuals are faced with diverse information choices in their studies, in the workplace, and in their lives. Information is available through community resources, special interest organisations, manufacturers and service providers, media, libraries, and the internet. Increasingly, information comes unfiltered. This raises questions about authenticity, validity, and reliability. In addition, information is available through multiple media, including graphical, aural, and textual. These pose special challenges in evaluating, understanding and using information in an ethical and legal manner. The uncertain quality and expanding quantity of information also pose large challenges for society. Sheer abundance of information and technology will not in itself create more informed citizens without a complementary understanding and capacity to use information effectively.

* Australian and New Zealand Institute for Information Literacy. (2004).

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The Framework provides the principles, standards and practice that can support information literacy education in all education sectors. In these sectors, information literacy has been generally defined as an understanding and set of abilities enabling individuals to 'recognise when information is needed and have the capacity to locate, evaluate, and use effectively the needed information'.² In a broader context, information literate people have been described as those who 'know when they need information, and are then able to identify, locate, evaluate, organise, and effectively use the information to address and help resolve personal, job related, or broader social issues and problems'.³

Information literate people

- recognise a need for information
- determine the extent of information needed
- access information efficiently
- critically evaluate information and its sources
- classify, store, manipulate and redraft information collected or generated
- incorporate selected information into their knowledge base
- use information effectively to learn, create new knowledge, solve problems and make decisions
- understand economic, legal, social, political and cultural issues in the use of information
- access and use information ethically and legally
- use information and knowledge for participative citizenship and social responsibility
- experience information literacy as part of independent learning and lifelong learning

The importance of information literacy in workplace learning, lifelong learning and participative citizenship is succinctly expressed in the Australian Library and Information Association's 2001 Statement on information literacy for all Australians⁴

Object of the Australian Library and Information Association

To promote the free flow of information and ideas in the interest of all Australians and a thriving culture, economy and democracy.

Principle

A thriving national and global culture, economy and democracy will be best advanced by people able to recognise their need for information, and identify, locate, access, evaluate and apply the needed information.

Statement

Information literacy is a prerequisite for

- participative citizenship
- social inclusion
- the creation of new knowledge
- personal, vocational, corporate and organisational empowerment
- learning for life

Library and information services professionals therefore embrace a responsibility to develop the information literacy of their clients. They will support governments at all levels, and the corporate, community, professional, educational and trade union sectors, in promoting and facilitating the development of information literacy for all Australians as a high priority during the 21st century.

Information literacy incorporates, and is broader than, fluency in the use of information and communications technology (ICT). With digitisation of scholarly publications and the growth in online delivery, fluency with information technology requires more than the learning of software and hardware associated with computer literacy. 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. Information literacy initiates, sustains, and extends lifelong learning through abilities that may use technologies but are ultimately independent of them.

Information literacy and lifelong learning

Lifelong learning is 'all formal, nonformal and informal learning whether intentional or unanticipated which occurs at any time across the lifespan'.⁵ However, intentional lifelong learning, either formally or self managed, is regarded as necessary due to rapid technological, social, cultural and economic change. Information literacy is a 'prerequisite'⁶ and 'essential enabler'⁷ for lifelong learning.

Lifelong learning is intertwined with self directed/independent learning and participative citizenship. The American Library Association states that information literate people

... know how to learn because they know how knowledge is organised, how to find information, and how to use information in such a way that others can learn from them. They are prepared for lifelong learning,

because they can always find the information for any task or decision at hand.⁸

Similarly, the Australian School Library Association⁹ describes information literacy as 'synonymous with knowing how to learn'. Further, the American Library Association¹⁰ states that information literacy is 'a means of personal empowerment. It allows people to verify or refute expert opinion and to become independent seekers of truth.' Information literacy can be seen as a subset of independent learning, that in turn is a subset of lifelong learning

In 1994, Candy, Crebert and O'Leary's report *Developing lifelong learners through undergraduate education* connected information literacy with lifelong learning. Its profile of the lifelong learner included the following information literacy qualities or characteristics

- knowledge of major current resources available in at least one field of study
- ability to frame researchable questions in at least one field of study
- ability to locate, evaluate, manage and use information in a range of contexts
- ability to retrieve information using a variety of media
- ability to decode information in a variety of forms: written, statistical, graphs, charts, diagrams and tables
- critical evaluation of information¹¹

Information literacy is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to engage critically with content and extend their investigations, become more self directed, and assume greater control over their own learning. Information literacy education Developing lifelong learners is central to the mission of educational institutions, and is increasingly reflected in descriptions of graduate qualities, attributes or capabilities. By leading individuals to think critically, and by helping them construct a framework for learning how to learn, educational institutions provide the foundation for continued growth throughout the careers of graduates, as well as in their roles as informed citizens and members of communities.

Candy, Crebert and O'Leary noted that 'learning to learn' is a major concern for all educational sectors and that

It involves the higher order skills of analysis, synthesis and evaluation, the ability to think critically, to construct meaning and reconstruct understanding in the light of new learning experiences. Courses where

reflective practice is central inevitably help students develop into independent learners much more readily than those whose focus is on the acquisition of a large body of knowledge.¹²

Information literacy education should create opportunities for self directed and independent learning where students become engaged in using a wide variety of information sources to expand their knowledge, construct knowledge, ask informed questions, and sharpen their critical thinking. This approach is evident in the increasingly widespread introduction of student centred constructivist pedagogy such as inquiry based, problem based and resource based learning. Characteristics of inquiry based and problem based curriculum design include an emphasis on experiential learning. In these models, a learning environment is provided that enables students to construct learning through asking questions and framing problems. The process of investigating and solving problems involves active, student driven, learning, and there is a strong implicit and explicit emphasis on effective use of information.¹³

Vocational education and training uses competency based curriculum, where students typically demonstrate attainment of learning outcomes.

Information literacy requires sustained development throughout all levels of formal education, primary, secondary and tertiary. In particular, as students progress through their undergraduate years and graduate programs, they need to have repeated opportunities for seeking, evaluating, managing and applying information gathered from multiple sources and obtained from discipline specific research methods. Achieving information literacy requires an understanding that such development is not extraneous to the curriculum but is woven into its content, structure, and sequence. Furthermore, information literacy 'cannot be the outcome of any one subject. It is the cumulative experience from a range of subjects and learning experiences which creates the information literate person.'¹⁴

Incorporating information literacy across curricula, and in all programs and services, requires the collaborative efforts of educators, including teachers, staff developers, learning advisers/ facilitators, librarians, other information professionals, trainers, curriculum designers and administrators. Current practice in information literacy curriculum design incorporates a mix of generic, parallel, integrated and embedded components

The most effective of these components is the embedding of information literacy throughout the curriculum. As Bruce¹⁶ argues, the critical elements of learning to be information literate are

- 1 Experiencing information literacy (learning)
- 2 Reflection on experience (being aware of learning)
- 3 Application of experience to novel contexts (transfer of learning)

Curricula at all educational levels therefore needs to include opportunities to experience, reflect and apply learning to novel contexts.

Use of the Information literacy framework

The Framework incorporates standards and learning outcomes that consist of the characteristics, attributes, processes, knowledge, skills, attitudes, beliefs and aspirations associated with the information literate person. The standards are grounded in generic skills, information skills and values and beliefs. These will be affected by the specific disciplinary context

Generic skills include problem solving, collaboration and teamwork, communication and critical thinking. Information skills include information seeking, information use and information technology fluency. Values and beliefs include using information wisely and ethically, social responsibility and community participation. These dimensions of learning combine in information literacy.

The Framework supports the embedding of information literacy in the design and teaching of educational programs across the curriculum. It can be used to frame curriculum objectives, learning outcomes and assessment criteria. It also provides higher and vocational education sectors with an opportunity to articulate the standards with those of the other education sectors, so that opportunities for explicit development can occur for students at all levels. The standards offer a means by which educators can identify learning outcomes that describe a student as information literate.

The Framework provides institutions with guidance for policy development within disciplines and professions, and a basis for whole of institution evaluation of the effectiveness of strategies to implement institutional policies.

Best practice evaluation

- establishes the process of ongoing planning/improvement of the program
- measures directly progress toward meeting the goals and objectives of the program
- integrates with course and curriculum assessment as well as institutional evaluations and regional/professional accreditation initiatives
- assumes multiple methods and purposes for assessment/evaluation.¹⁷

Evaluation of the effectiveness of information literacy programs should reflect the nature of the generic, parallel, integrated and embedded program components. Evaluation of the effectiveness of the implementation of policies at the institutional level should complement and support initiatives at the program level.

Teaching and curriculum design evaluation could incorporate student, peer and self evaluation using a mix of questionnaires, focus groups, teaching portfolios, peer observation and peer debriefing. At the institutional level, strategies could include analysis of curriculum and other documents for evidence of intent and practice in order to establish the essential features of initiatives that are successful. Any mix of evaluation methods should include the achievement of student learning outcomes as demonstrated in formal and informal assessment. One such strategy at the institutional level is the implementation of the Information skills survey.¹⁸

The Framework also provides a structure for students to have an awareness and understanding of their interaction with information. In higher education all students are expected to demonstrate all of the standards, but not everyone will demonstrate them to the same level or at the same time. In vocational education, the relevance of some aspects of the standards will be dependent on the type and level of program students are undertaking.

Some disciplines may place greater emphasis on particular learning outcomes at certain points during information seeking and use, and knowledge creation. These outcomes would therefore receive greater weight than others. In addition, the iterative and evolutionary nature of searching for and using information should be emphasised. Many aspects are likely to be performed recursively, in that the reflective and evaluative aspects will require returning to an earlier point in the process, revising the information seeking approach, and repeating the steps. The standards are not intended to represent a linear approach to information literacy.

To implement the Framework effectively, an institution should review its mission and educational goals and align these with the development of curricular and quality enhancement practices. Staff development is important, in particular for teachers and librarians, to foster understanding and acceptance of information literacy education.¹⁹

This overview revises that in the first edition. The revision is by Mandy Lupton, the editorial committee, and the national working group for TAFE library Services

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Statement of principles

The Australian and New Zealand information literacy framework is based on four overarching principles. These are, that information literate people

- .. engage in independent learning through constructing new meaning, understanding and knowledge
- .. derive satisfaction and personal fulfillment from using information wisely
- .. individually and collectively search for and use information for decision making and problem solving in order to address personal, professional and societal issues
- .. demonstrate social responsibility through a commitment to lifelong learning And community participation

Core standards

The principles frame six core standards which underpin information literacy acquisition, understanding and application by an individual. These 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

Standard One

The information literate person recognises the need for information and determines the nature and extent of the information needed

Learning outcomes

The information literate person

- 1.1 defines and articulates the information need
- 1.2 understands the purpose, scope and appropriateness of a variety of information sources
- 1.3 re-evaluates the nature and extent of the information need
- 1.4 uses diverse sources of information to inform decisions

Examples for Standard One

1.1 defines and articulates the information need

- explores general information sources to increase familiarity with the topic
- identifies key concepts and terms in order to formulate and focus questions
- defines or modifies the information need to achieve a manageable focus
- may confer with others to identify a research topic or other information need

1.2 understands the purpose, scope and appropriateness of a variety of information sources

- understands how information is organised and disseminated, recognising the context of the topic in the discipline
- differentiates between, and values, the variety of potential sources of information
- identifies the intended purpose and audience of potential resources eg popular vs scholarly, current vs historical
- differentiates between primary and secondary sources, recognising how their use and importance vary with each discipline

1.3 re-evaluates the nature and extent of the information need

- reviews the initial information need to clarify, revise, or refine the question
 - articulates and uses criteria to make information decisions and choices

1.4 uses diverse sources of information to inform decisions

- understands that different sources will present different perspectives
- uses a range of sources to understand the issues
- uses information for decision making and problem solving

Standard Two

The information literate person finds needed information effectively and efficiently

Learning outcomes

The information literate person

- 2.1 selects the most appropriate methods or tools for finding information
- 2.2 constructs and implements effective search strategies
- 2.3 obtains information using appropriate methods
- 2.4 keeps up to date with information sources, information technologies, information access tools and investigative methods

Examples for Standard Two

2.1 selects the most appropriate methods or tools for finding information

- identifies appropriate investigative methods eg laboratory experiment, simulation, fieldwork
- investigates benefits and applicability of various investigative methods
- investigates the scope, content, and organisation of information access tools
 - consults with librarians and other information professionals to help identify information access tools

2.2 constructs and implements effective search strategies

- develops a search plan appropriate to the investigative method
- identifies keywords, synonyms and related terms for the information needed
 - selects appropriate controlled vocabulary or a classification specific to the discipline or information access tools
 - constructs and implements a search strategy using appropriate commands
 - implements the search using investigative methodology appropriate to the discipline

2.3 obtains information using appropriate methods

- uses various information access tools to retrieve information in a variety of formats
 - uses appropriate services to retrieve information needed eg document delivery, professional associations, institutional research offices, community resources, experts and practitioners
 - uses surveys, letters, interviews, and other forms of inquiry to retrieve primary information

2.4 keeps up to date with information sources, information technologies, information access tools and investigative methods

- maintains awareness of changes in information and communications technology
 - uses alert/current awareness services
 - subscribes to listservs and discussion groups
 - habitually browses print and electronic sources

Standard Three

The information literate person critically evaluates information and the information seeking process

Learning outcomes

The information literate person

3.1 assesses the usefulness and relevance of the information obtained

3.2 defines and applies criteria for evaluating information

3.3 reflects on the information seeking process and revises search strategies as necessary

Examples for Standard Three

3.1 assesses the usefulness and relevance of the information obtained

- assesses the quantity, quality, and relevance of the search results to determine whether alternative information access tools or investigative methods should be utilised

- identifies gaps in the information retrieved and determines if the search strategy should be revised
- repeats the search using the revised strategy as necessary

3.2 defines and applies criteria for evaluating information

- examines and compares information from various sources to evaluate reliability, validity, accuracy, authority, timeliness, and point of view or bias
- analyses the structure and logic of supporting arguments or methods
- recognises and questions prejudice, deception, or manipulation
- recognises the cultural, physical, or other context within which the information was created and understands the impact of context on interpreting the information
- recognises and understands own biases and cultural context

3.3 reflects on the information seeking process and revises search strategies as necessary

- determines if original information need has been satisfied or if additional information is needed
- reviews the search strategy
- reviews information access tools used and expands to include others as needed
- recognises that the information search process is evolutionary and nonlinear

Standard Four

The information literate person manages information collected or generated

Learning outcomes

The information literate person

4.1 records information and its sources

4.2 organises (orders/classifies/stores) information

Examples for Standard Four

4.1 records information and its sources

- organises the content in a manner that supports the purposes and format of the product eg outlines, drafts, storyboards
- differentiates between the types of sources cited and understands the elements and correct citation style for a wide range of resources
- records all pertinent citation information for future reference and retrieval

4.2 organises (orders/classifies/stores) information

- compiles references in the required bibliographic format
- creates a system for organising and managing the information obtained eg EndNote, card files

Standard Five

The information literate person applies prior and new information to construct new concepts or create new understandings

Learning outcomes

The information literate person

5.1 compares and integrates new understandings with prior knowledge to determine the value added, contradictions, or other unique characteristics of the information

5.2 communicates knowledge and new understandings effectively

Examples for Standard Five

5.1 compares and integrates new understandings with prior knowledge to determine the value added, contradictions, or other unique characteristics of the information

- determines whether information satisfies the research or other information need and whether the information contradicts or verifies information used from other sources
- recognises interrelationships between concepts and draws conclusions based upon information gathered

- selects information that provides evidence for the topic and summarises the main ideas extracted from the information gathered
 - understands that information and knowledge in any discipline is in part a social construction and is subject to change as a result of ongoing dialogue and research
 - extends initial synthesis at a higher level of abstraction to construct new hypotheses

5.2 communicates knowledge and new understandings effectively

- chooses a communication medium and format that best supports the purposes of the product and the intended audience
 - uses a range of appropriate information technology applications in creating the product
 - incorporates principles of design and communication appropriate to the environment
 - communicates clearly and in a style to support the purposes of the intended audience

Standard Six

The information literate person uses information with understanding and acknowledges cultural, ethical, economic, legal, and social issues surrounding the use of information

Learning outcomes

The information literate person

- 6.1 acknowledges cultural, ethical, and socioeconomic issues related to access to, and use of, information
- 6.2 recognises that information is underpinned by values and beliefs
- 6.3 conforms with conventions and etiquette related to access to, and use of, information
- 6.4 legally obtains, stores, and disseminates text, data, images, or sounds

Examples for Standard Six

6.1 acknowledges cultural, ethical, and socioeconomic issues related to access to, and use of, information

- identifies and can articulate issues related to privacy and security in the print and electronic environments
 - identifies and understands issues related to censorship and freedom of speech
 - understands and respects Indigenous and multicultural perspectives of using information

6.2 recognises that information is underpinned by values and beliefs

- identifies whether there are differing values that underpin new information or whether information has implications for personal values and beliefs
 - applies reasoning to determine whether to incorporate or reject viewpoints encountered
 - maintains an internally coherent set of values informed by knowledge and experience

6.3 conforms with conventions and etiquette related to access to, and use of, information

- demonstrates an understanding of what constitutes plagiarism and correctly acknowledges the work and ideas of others
 - participates in electronic discussions following accepted practices eg Netiquette

6.4 legally obtains, stores, and disseminates text, data, images, or sounds

- understands fair dealing in respect of the acquisition and dissemination of educational and research materials
 - respects the access rights of all users and does not damage information resources
 - obtains, stores, and disseminates text, data, images, or sounds in a legal manner
 - demonstrates an understanding of intellectual property, copyright and fair use of copyrighted material



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