

Information literacy:  
definitions, standards and assessment, related concepts

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- Valentina Kirinić :
  - PhD in Information Science – Information literacy: evaluation of web information resources and web credibility
  - Courses: information search/retrieval and classification, software quality, digital publishing ...
  - ICT in education, ICT skills
- Information literacy (Information retrieval/search methods and classification)

## Who are you?



- Students attending the Information Science course
- Students:
  - Study programmes – Business Administration?
  - Professionals to be?
  - Professional interests?
- I do not know you but ...
- I know you need information literacy:
  - For academic success (to study; to find your diploma thesis topic, to prepare it and to present it)
  - To find a job / prospective employers and present yourself to them
  - To effectively manage your tasks at a workplace
  - For lifelong learning and further professional development/growth

- Definitions
  - Zurkowski
  - ALA
  - Australian and New Zealand Information Literacy Framework
- Standards (practical aspect)
  - Academic (HE) – ACRL
- Models (theoretical aspect)
  - SCONUL
- Assessment
  - IL education/courses
  - Types of assessment
- Related concepts
  - Computer, digital, ...

- ICT – new skills, competencies, literacies
- Skill = “subtle or imaginative **ability** in inventing, devising, or executing something” [<http://www.merriam-webster.com/thesaurus/skill?show=0&t=1283346073>]
- Competence = “the physical or mental **power to do** something” [<http://www.merriam-webster.com/thesaurus/competence>]
- Literacy = “the understanding and information gained from **being educated**” [<http://www.merriam-webster.com/thesaurus/literacy>]

- “information literacy” introduced by Paul G. Zurkowski in 1974
- The Information Service Environment Relationships and Priorities. Related Paper No. 5. - report to National Commission on Libraries and Information Science [Zurkowski, 1974]:
  - “The relations of the National Commission on Libraries and Information Science to **information literacy and the information industry are discussed**”
  - “It is suggested that the top priority of The National Commission on Libraries and Information Science should be directed toward establishing a **major national program to achieve universal information literacy** by 1984”

- Zurkowski [1974] – “We experience an overabundance of information whenever available information exceeds our capacity to evaluate it. This is a universal condition today for three reasons:
  - The **information seeking procedures of individuals are different** at different times for different purposes.
  - **A multiplicity of access routes and sources** have arisen in response to this kaleidoscopic approach people take to fulfilling their information needs. These are poorly understood and vastly underutilized.
  - **More and more of the events and artifacts of human existence** are being dealt with in information equivalents, requiring retraining of the whole population.”

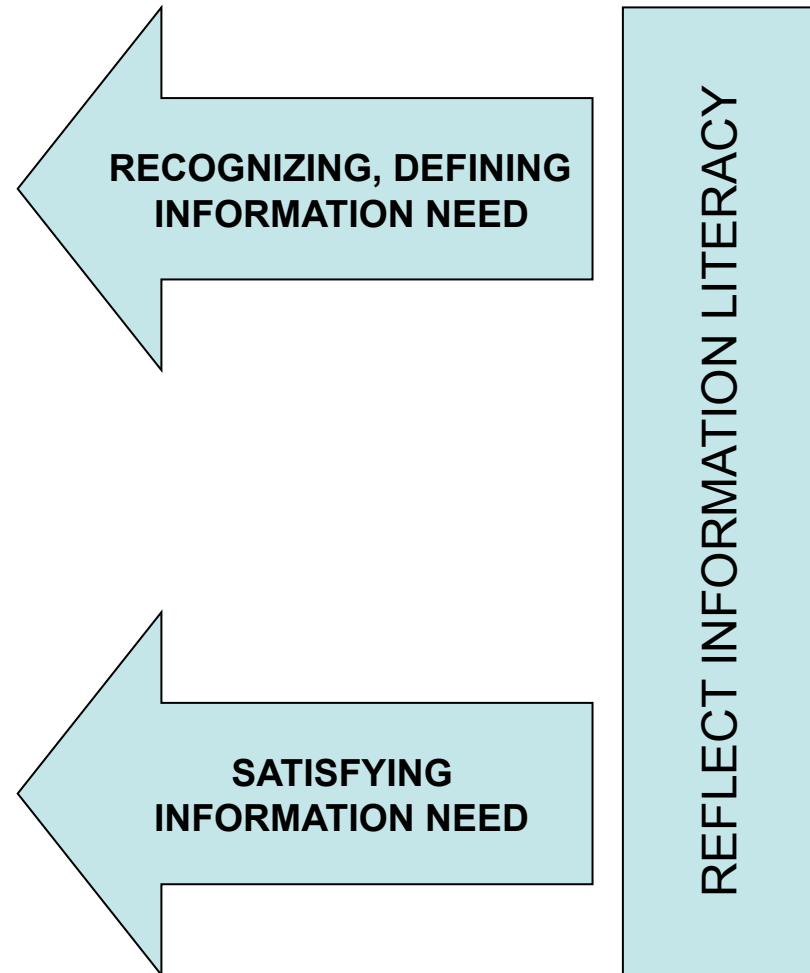
- Zurkowski [1974] – definition of information literacy = definition of information literates:
- **“People trained in the application of information resources to their work** can be called information literates. They **have learned techniques and skills** for utilizing the wide range of information tools as well as primary sources in molding information solutions to their problems.”
- **Illiterates:** “... while literate in the sense that can read and write, **do not have measure for the value of information, do not have an ability to mold information to their needs...**”

- Information literacy – set of abilities requiring individuals to [ALA, 1989]:

"recognize when information is needed

and

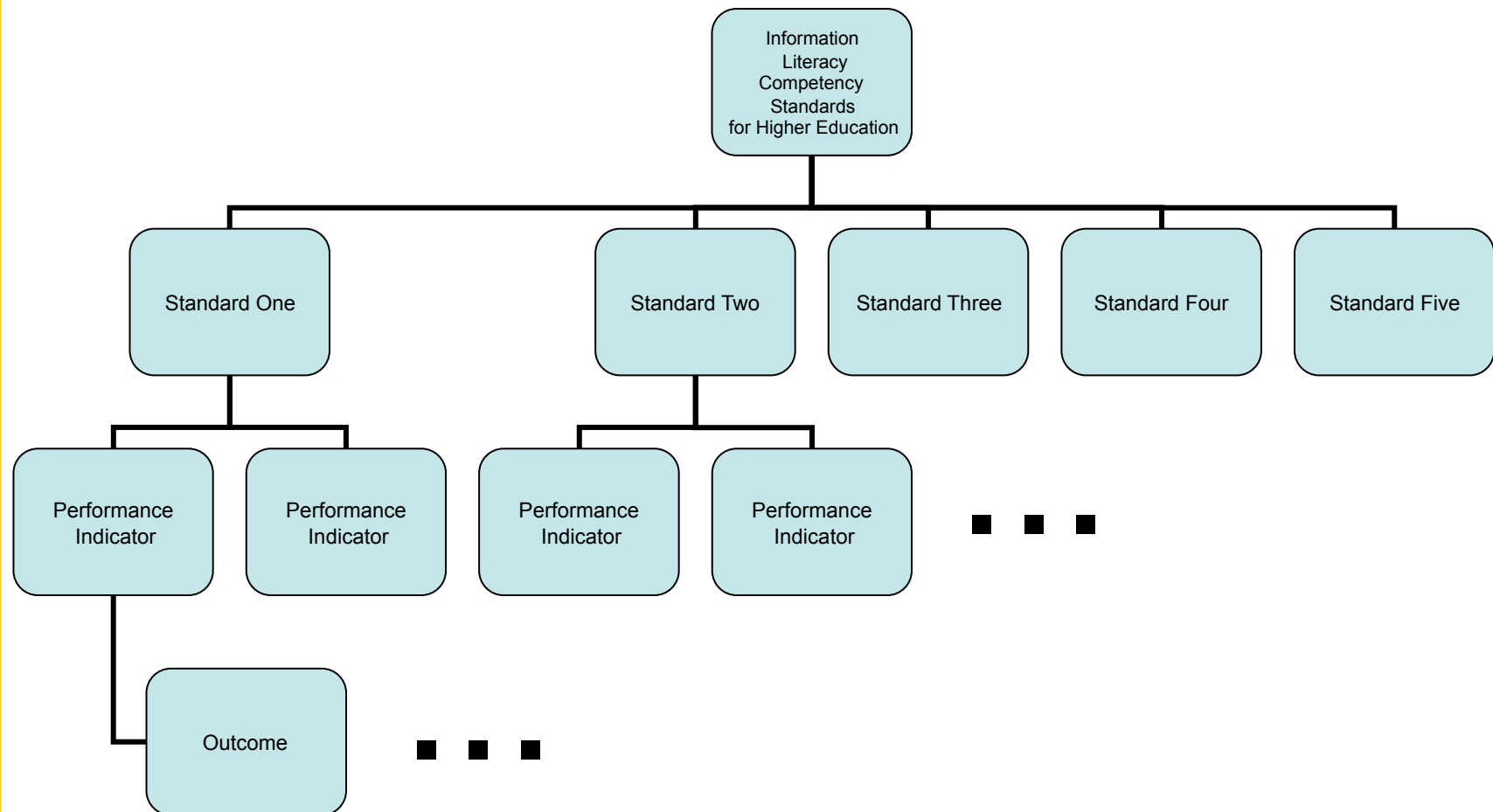
have the ability to locate, evaluate, and use effectively the needed information"



- Information literacy elements – the dimensions of learning [Australian and New Zealand Institute for Information Literacy, 2004, 7]:
  - **“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.”

- **ACRL-Association of College & Research Libraries** (under ALA)
- Information Literacy Competency Standards for **Higher Education (HE)** [ACRL, 2000] – Information Literacy and Pedagogy:
  - “Courses structured in such a way create **student-centered learning environments** where **inquiry is the norm, problem solving becomes the focus, and thinking critically is part of the process.** Such learning environments require information literacy competencies. ”

- Information Literacy Competency Standards for Higher Education [ACRL, 2000] – The structure:



- **Standard One** – The information literate student determines the nature and extent of the information needed.

**Performance Indicators:**

1. defines and articulates the need for information

**Outcomes** Include:

- a) Confers with instructors and participates in class discussions, peer workgroups, and electronic discussions to identify a research topic, or other information need
- b) Develops a thesis statement and formulates questions based on the information need
- c) Explores general information sources to increase familiarity with the topic
- d) Defines or modifies the information need to achieve a manageable focus
- e) Identifies key concepts and terms that describe the information need
- f) Recognizes that existing information can be combined with original thought, experimentation, and/or analysis to produce new information

2. identifies a variety of types and formats of potential sources for information

**Outcomes** Include:

...

3. considers the costs and benefits of acquiring the needed information

**Outcomes** Include:

...

4. reevaluates the nature and extent of the information need

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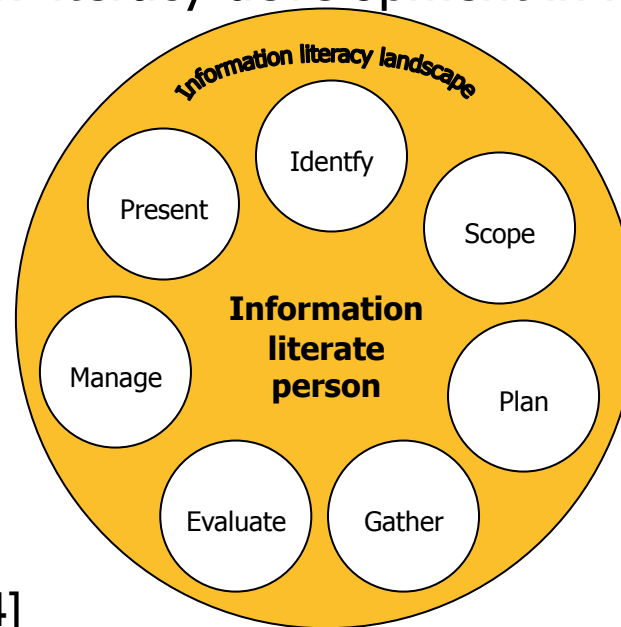
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- **Standard One** – The information literate student **determines the nature and extent of the information needed**:
  - **defines and articulates the need** for information
  - identifies a variety of types and formats of **potential sources for information**
  - considers the **costs and benefits** of acquiring the needed information
  - **reevaluates** the nature and extent of the information need
- **Standard Two** – The information literate student **accesses needed information effectively and efficiently**:
  - selects the most appropriate investigative **methods** or **information retrieval systems** for accessing the needed information
  - constructs and implements effectively-designed **search strategies**
  - retrieves information online or in person using a **variety of methods**
  - **refines the search strategy** if necessary
  - **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**:
  - **summarizes the main ideas** to be extracted from the information gathered
  - **articulates and applies initial criteria** for evaluating both the information and its sources
  - **synthesizes main ideas to construct new concepts**
  - compares new knowledge with prior knowledge to **determine the value added, contradictions, or other unique characteristics** of the information
  - determines whether the new knowledge has an **impact on the individual's value system** and takes steps to reconcile differences
  - **validates understanding and interpretation** of the information through discourse with other individuals, subject-area experts, and/or practitioners
  - **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**:
  - **applies new and prior information** to the planning and creation of a particular product or performance
  - **revises the development process** for the product or performance
  - **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**:
  - **understands many of the ethical, legal and socio-economic** issues surrounding information and information technology
  - **follows laws, regulations, institutional policies, and etiquette** related to the access and use of information resources
  - **acknowledges the use of information sources** in communicating the product or performance

- SCONUL – Society of College, National and University Libraries, Working Group on Information Literacy, The SCONUL Seven Pillars of Information Literacy - Core Model For Higher Education [SCONUL, 2011, 3]:
  - “model defines the core skills and competencies (ability) and attitudes and behaviours (understanding) at the heart of information literacy development in higher education”



[SCONUL, 2011, 4]

- SCONUL – example [SCONUL, 2011, 10]:

<b>MANAGE</b> Can organise information professionally and ethically
Understands:
<ul style="list-style-type: none"><li>• Their responsibility to be honest in all aspects of information handling and dissemination (e.g. copyright, plagiarism and intellectual property issues)</li><li>• The need to adopt appropriate data handling methods</li><li>• The role they play in helping others in information seeking and management</li><li>• The need to keep systematic records</li><li>• The importance of storing and sharing information and data ethically</li><li>• The role of professionals, such as data managers and librarians, who can advise, assist and support with all aspects of information management</li></ul>
Is able to:
<ul style="list-style-type: none"><li>• Use bibliographical software if appropriate to manage information</li><li>• Cite printed and electronic sources using suitable referencing styles</li><li>• Create appropriately formatted bibliographies</li><li>• Demonstrate awareness of issues relating to the rights of others including ethics, data protection, copyright, plagiarism and any other intellectual property issues</li><li>• Meet standards of conduct for academic integrity</li><li>• Use appropriate data management software and techniques to manage data</li></ul>

- Australian and New Zealand Information Literacy Framework [Australian and New Zealand Institute for Information Literacy, 2004] – adapted from Bruce [2002]: “Current practice in information literacy curriculum design incorporates a mix of generic, parallel, integrated and embedded components”

Information literacy program components [Australian and New Zealand Institute for Information Literacy, 2004, 6]

<b>Generic</b>	Extra curricular classes and/or self paced packages	IL as a regular course
<b>Parallel</b>	Extra curricular classes and/or self paced packages that complement the curriculum	IL as a library course
<b>Integrated</b>	Classes and packages that are part of the curriculum	IL as a course add-on
<b>Embedded</b>	Curriculum design where students have ongoing interaction and reflection with information	IL as a goal/outcome of a course/curriculum

- According to Stec [2004] there are three types of learning assessment (for different purposes):
  - **Prescriptive or diagnostic** – assesses the knowledge and skill of participants before the instruction is designed (in the form of standardized or instructor-developed tests, audits or review of a student’s prior work)
  - **Formative** – provides feedback about student learning while the instruction is in progress and allows the instructor to adjust teaching methods during a course (writing a one page “reaction paper” to a reading assignment, preparing an annotated bibliography of research materials, ...)
  - **Summative** – a final evaluation of the criteria for assessment, occurs at the end of instruction (multiple choice question, essays, evaluation of citations used, ...)

- Bawden D., Progress In Documentation Information And Digital Literacies: A Review Of Concepts, Journal of Documentation 2001; 57(2): pp. 218–259
- The concepts of “information literacy” and “digital literacy” and related concepts are described (by a literature survey and analysis)
- “six terms (some of which have related terms which appear to be used synonymously) are found [Bawden, 2001, 219]:
  - information literacy,
  - computer literacy: synonyms – IT/information technology/electronic/electronic information literacy,
  - library literacy,
  - media literacy,
  - network literacy: synonyms – Internet literacy, hyper-literacy,
  - digital literacy: synonym – digital information literacy”

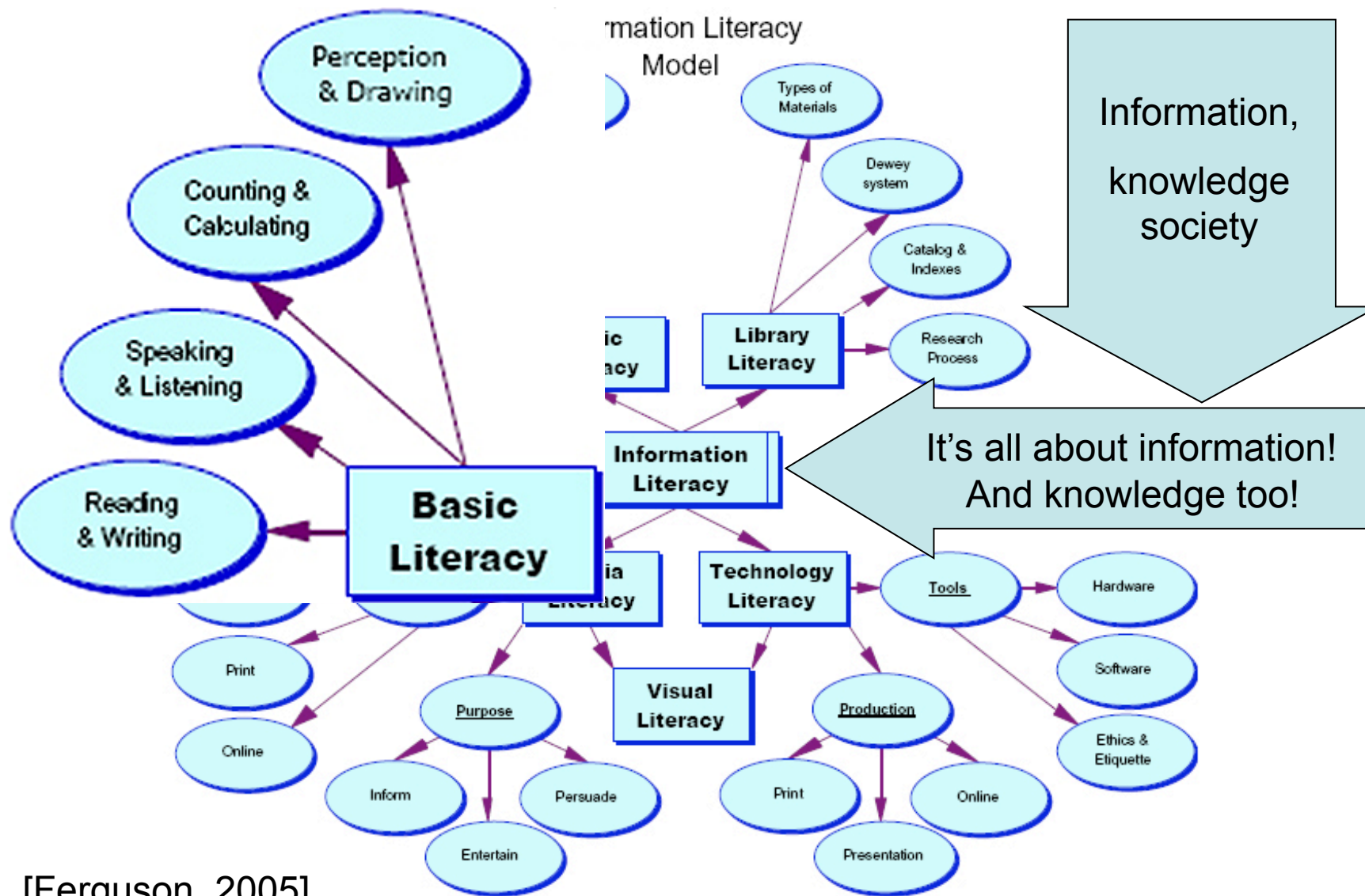
- According to Bawden [2001, 223-4] **library literacy** has two meanings:
  - the competence in the use of libraries ... with a particular emphasis on being able to make informed decisions about sources of information
  - the involvement of libraries in literacy programmes in the traditional sense, i.e. the teaching of reading skills
- **Media literacy** – the “term is used to imply critical thinking in assessing information gained from the mass media: television, radio, newspapers and magazines, and (increasingly) the Internet” [Bawden, 2001, 225]

- **Computer literacy, IT literacy and electronic literacy** [Bawden, 2001, 226]:
  - “the skills required to operate a variety of computer applications packages – word processing, databases, spreadsheets, etc. – together with some general IT skills, such as copying disks and generating hard-copy printout”
- According to Tuckett [1989] in [Bawden, 2001, 227] computer literacy has three components:
  - a general understanding of what computers can do
  - the skills necessary to use them as an effective tool
  - the demonstration of self-reliance in use of computers

- Digital literacies: network literacy, Internet literacy, hyper-literacy, and multimedia literacy
- network literacy is “the ability to identify, access and use electronic information from the network” – the basic components of network literacy include [McClure, 1994] in [Bawden, 2001, 249]:
  - knowledge:
    - an awareness of the **range and uses of networked resources**,
    - an understanding of the **role and uses of networked information in problem solving** and ‘basic life activities’,
    - an understanding of the system by which **networked information is generated, managed and made available**,
  - skills:
    - **retrieval** of specific types of information from networks,
    - **manipulation** of networked information; combining, enhancing, adding value,
    - **use** of networked information to help make work-related and personal decisions”

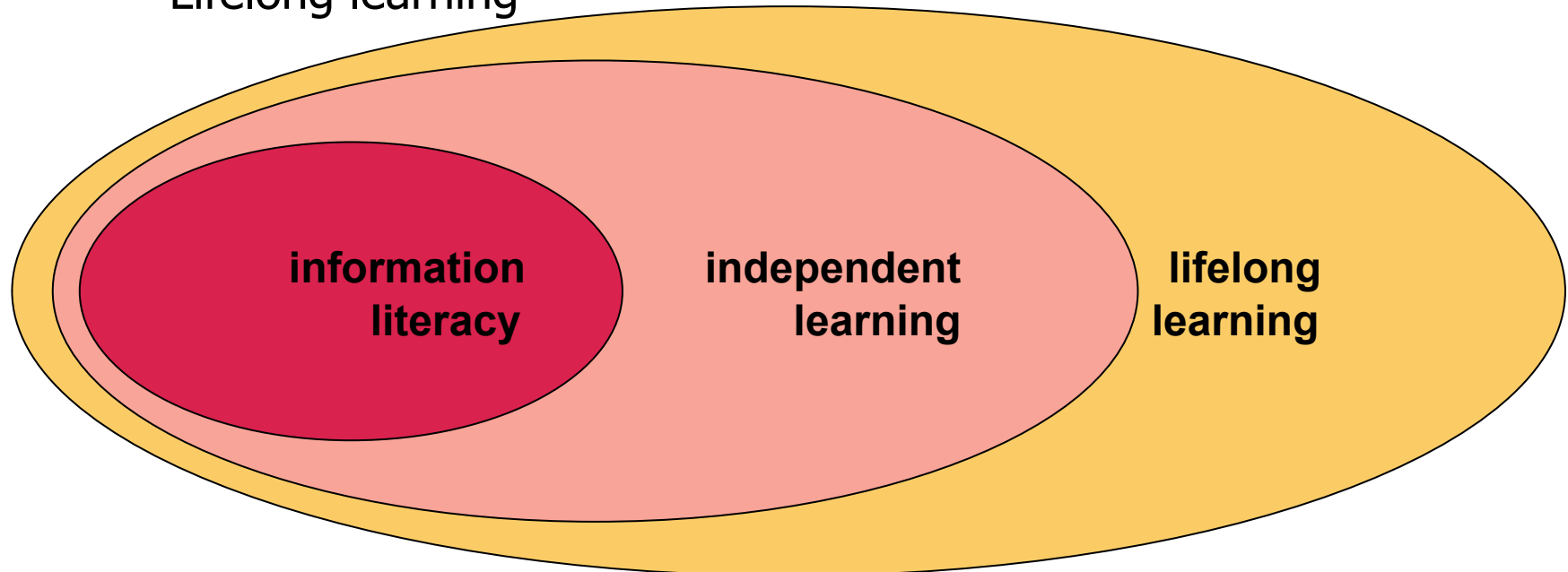
# Information literacy – related concepts

Literacies we are familiar with and other...



[Ferguson, 2005]

- Information literacy – importance & value for:
  - Education – academic success
  - Workplace – professional success and growth
  - Lifelong learning



Relationship of information literacy to lifelong learning [Australian and New Zealand Institute for Information Literacy, 2005, 5]

- ACRL-Association of College & Research Libraries, Information literacy competency standards for higher education, 2000. [<http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm>; accessed 6.11.2011.]
- ALA-American Library Association, Presidential Committee on Information Literacy. Final Report, (Chicago: American Library Association, 1989. [<http://www.ala.org/ala/mgrps/divs/acrl/publications/whitepapers/presidential.cfm> ; accessed 6.11.2011.]
- Australian and New Zealand Institute for Information Literacy, Australian and New Zealand Information Literacy Framework: principles, standards and practice, (Edt. Bundy, A.), Second edition, Adelaide, 2004.
- Bawden, D., Progress In Documentation Information And Digital Literacies: A Review Of Concepts, Journal of Documentation, 2001.; 57(2), 218–259
- Ferguson, B., Information Literacy: A Primer for Teachers, Librarians, and other Informed People, A FreEbook, [<http://bibliotech.us/pdfs/InfoLit.pdf>; accessed 8.11.2011.]
- McClure, C.R., Network literacy: a role for libraries, InformationTechnology and Libraries, 1994., 13, 115–125.
- SCONUL – Society of College, National and University Libraries, Working Group on Information Literacy, The SCONUL Seven Pillars of Information Literacy - Core Model For Higher Education, 2011. [[http://www.sconul.ac.uk/groups/information\\_literacy/publications/coremodel.pdf](http://www.sconul.ac.uk/groups/information_literacy/publications/coremodel.pdf); accessed 7.11.2011.]
- Stec, E., Guidelines for Information Literacy assessment, IFLA, 2004. [<http://www.ifla.org/en/publications/guidelines-for-information-literacy-assessment>; accessed 7.11.2011.]
- Tuckett, H.W., Computer literacy, information literacy and the role of the instruction librarian. In: Mensching, G.E. and Mensching, T.B., eds. Coping with information illiteracy: bibliographic instruction for the information age. Ann Arbor, Mich.: Pierian Press, 1989., 21–31
- Zurkowski, P.G., The Information Service Environment Relationships and Priorities, Related Paper No. 5., National Commission on Libraries and Information Science, Washington, DC., National Program for Library and Information Services, 1974., [<http://eric.ed.gov/PDFS/ED100391.pdf>; accessed 8.11.2011.]