Information literacy and diversity of experience: reflecting on bringing about curriculum integration

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The first challenge:

Diverse ways of seeing information literacy and learning

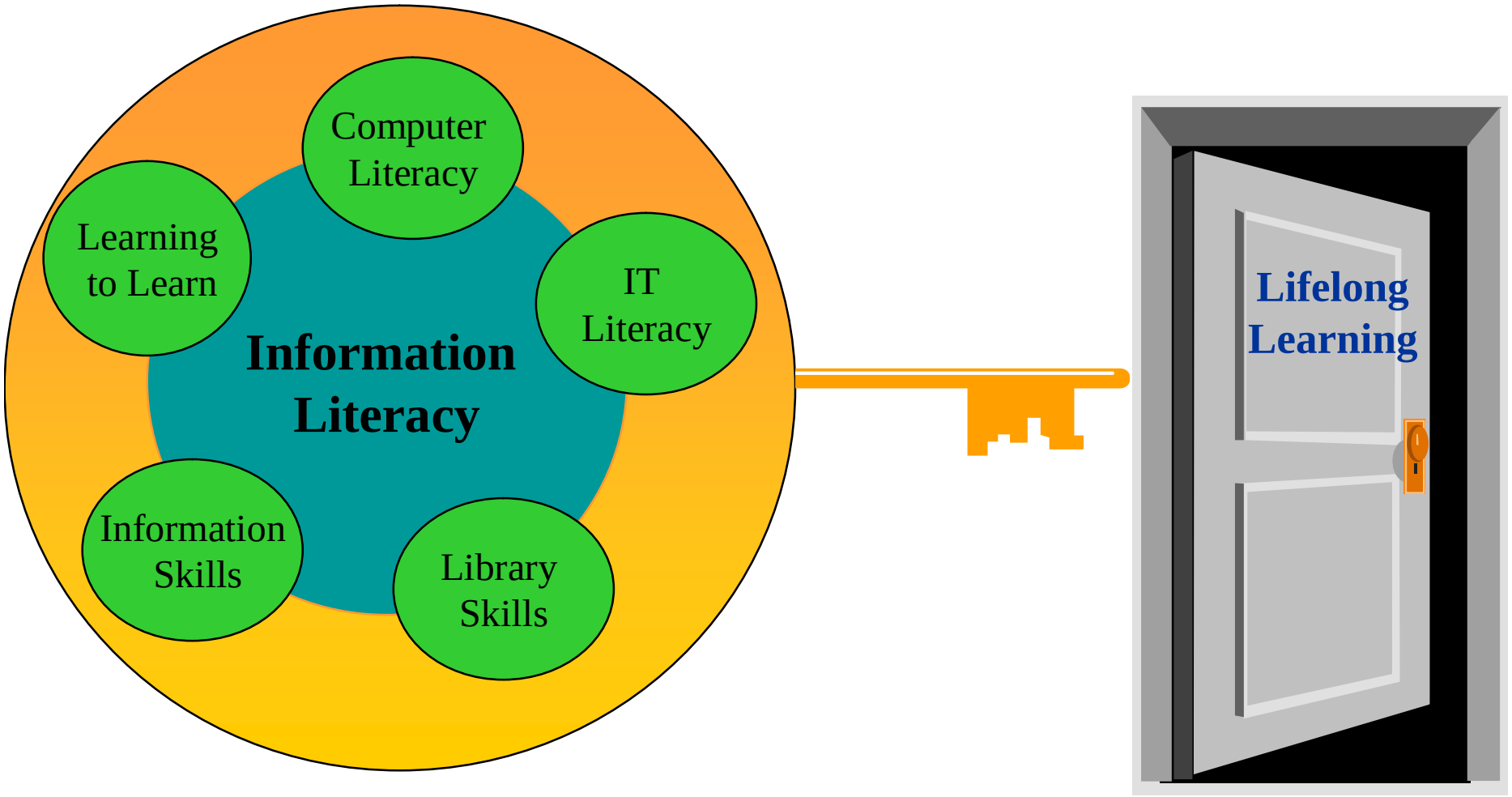
Prague Declaration 2003

Information literacy

- **…is a concern for all sectors of society and should be tailored by each to suit its specific needs and contexts**
- **…reduces inequities,.. promotes tolerance and mutual understanding….**
- **…should be an integral part of Education for All**

http://www.nclis.gov/libinter/infolitconf&meet

Key to Lifelong Learning:



Denis Ralph (1999) Information Literacy and Foundations for Lifelong Learning, Proceedings of the 4th National Information Literacy Conference, Adelaide, UNISA Library. Adapted from Bruce model, ‘97.

- ***"People see teaching and learning differently"***
- This is a deceptively simple proposition, supported by much research, which has a profound effect on our daily engagement with teaching and learning in its many forms. (Marton and Booth, 1997; Bowden and Marton, 1998; Prosser and Trigwell, 1999; Ramsden, 2003)

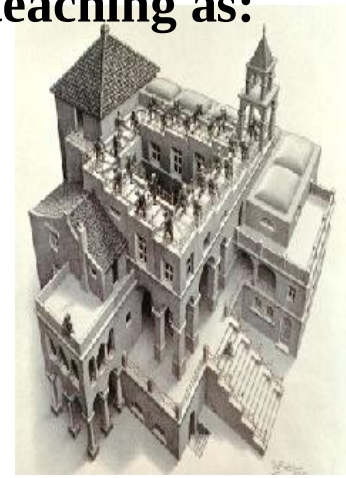
How do you see teaching and learning?

In my/our view teaching is:

In my/our view learning is:

Students may see learning as:

An increase of knowledge
Memorizing
The acquisition of facts, procedures for us in practice
Understanding what something means
Interpreting the world to understand it
Changing as a person
(Saljo, 1979; Marton, et al 1993)

Teachers may see learning as:	**Teachers may see teaching as:**
Acquiring knowledge Absorbing knowledge and being able to explain and apply it Developing thinking skills and the ability to reason Developing beginning professional competence Changing attitudes or behaviours A participative pedagogical experience (Bruce and Gerber, 1995) 	 Presenting information Transmitting information (From teacher to student) Illustrating application of theory to practice Developing the capacity to be expert Supporting student learning Encouraging active learning Facilitating personal agency (control) Bringing about a better society (Dall'Alba 1991; Martin and Balla, 1991; Pratt, 1992 Samuelovicz and Bain, 1992)

Ways of seeing Competence

- Skills based, academic and reflective competence (Barnett 1994)
- Competence as a particular way of experiencing work (Sandberg 1994)
- Competence as experiencing practice in particular ways, this goes beyond mastering skills or knowledge that have a short shelf-life (Dall'Alba and Sandberg 1996; Velde and Svensson 1996)

Ways of seeing graduate capabilities

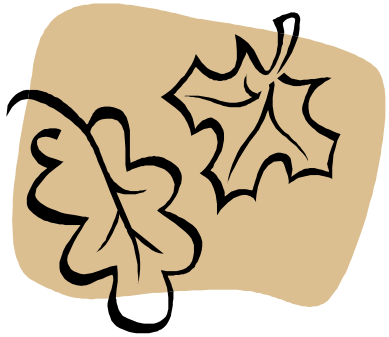
- Academics responses to the graduate capability agenda are strongly influenced by their views of teaching and learning

- (Simon Barrie2003, Paul Ramsden, 2003)

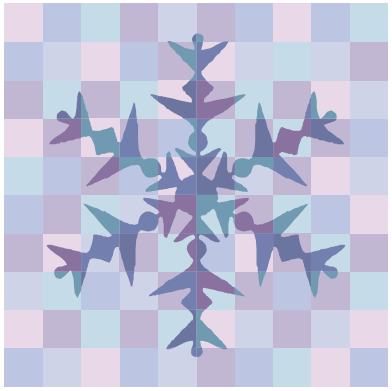
Ways of seeing lifelong learning

- Lifelong learning – regular participation in formal education
- Lifelong learning – personal engagement with learning outside formal educational structures
- We need to be able to learn both individually and with others on an everyday basis

- How do you see information?



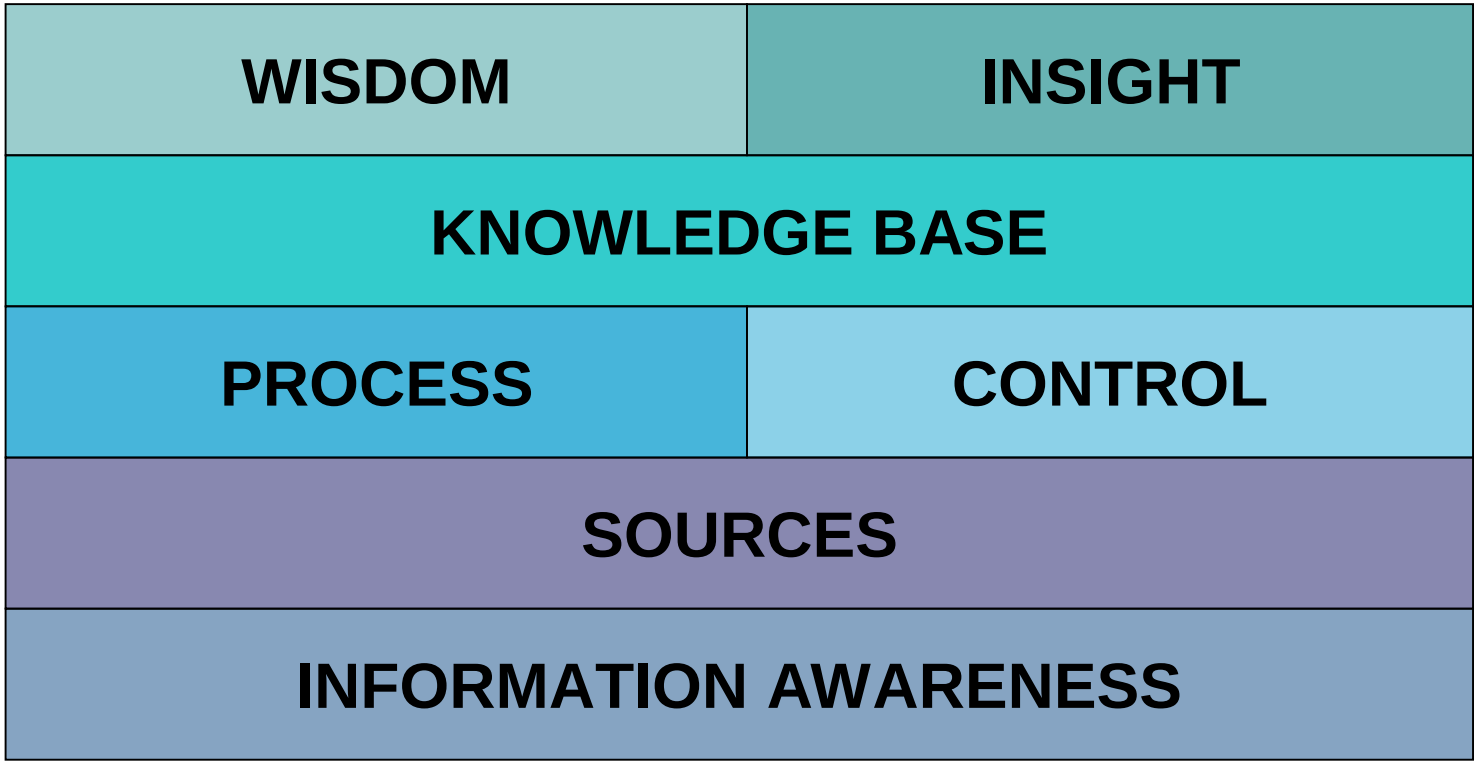
- How do you see information literacy?



- ***“People also see information literacy differently”***

  ways of seeing teaching and learning are likely influences on our approaches to, and experiences of, IL education.

Seven Faces of IL



The existence of variation in ways of seeing IL raises questions.

- How do different views of IL influence approaches to learning and teaching?
- How do different views of IL influence interest in IL in different parts of institutions?
- and the level of curriculum integration?
- or the ways in which we choose to assess?

- The second challenge

- Diverse ways of experiencing information literacy education

CONTENT FRAME

View of IL	IL is knowledge about the world of information
View of Information	Information exists apart from the user; can be transmitted
Curriculum focus	What should learners know about the subject, about IL?
View of learning and teaching	Teacher is an expert- transmits knowledge. Learning is a change in how much is known
View of content	What needs to be known has primacy. All relevant content must be covered
View of Assessment	Assessment is objective. Measures how much has been learned; ranks student via exams

The Content Frame

- Users of the Content Frame usually adopt a discipline orientation. Their focus is on what learners should know about IL
- A typical example in relation to IL education might be teaching IL sessions within a discipline based subject and providing lectures on a key set of information tools and techniques. This might be followed by a test of recall.

COMPETENCY **FRAME**

View of IL	IL is a set of competencies or skills
View of Information	Information contributes to the performance of the relevant capability
Curriculum focus	What should learners be able to do?
View of learning and teaching	Teachers analyse tasks into knowledge and skills; learners become competent by following predetermined pathways.
View of content	Content is derived from observation of skilful practitioners
View of assessment	Assessment determines what level of skill has been achieved

The Competence Frame

- Users of the Competency Frame usually adopt a behavioural or performance orientation. They ask what learners should be able to do, and at what level of competence?
- A typical example in IL education might be the design of sequenced instruction to teach the use of an electronic tool; supplemented by testing to determine the level of skill that has been attained by the learner at specified points in the learning process

LEARNING TO LEARN FRAME

View of IL	IL is a way of learning
View of Information	Information is subjective – internalised and constructed by learners
Curriculum focus	What does it mean to think like an (IL) professional in the relevant field?
View of teaching and learning	Teachers facilitate collaborative learning; learners develop conceptual structure and ways of thinking and reasoning
View of content	Content is chosen for mastering important concepts and fostering reflective practice
View of assessment	Complex, contextual problems are proposed. Self or peer assessment is encouraged

Learning to learn frame

- Users of the learning-to-learn frame (Figure 5) usually adopt a constructivist orientation. They ask what it means to think like an information literate professional, for example an architect, engineer, journalist or landscape designer
- A typical example might be setting a real life problem in which the need to access, evaluate and use information from a range of sources is central and appropriately supported.

PERSONAL RELEVANCE FRAME

View of IL	IL is learned in context and is different for different people/groups
View of Information	Valuable information is useful to the learners
Curriculum focus	What good is IL to me?
View of teaching and learning	Teaching focuses on helping learners find motivation. Learning is about finding personal relevance and meaning
View of content	Problems, cases, scenarios selected to reveal relevance and meaning
View of assessment	Typically portfolio based – learners self assess

Personal relevance frame

- Users of the Personal Relevance frame usually adopt an experiential orientation. In relation to IL education they need learners to develop a sense of what IL can do for them.
- A typical example might be participating in a community project that required engagement with relevant information services and providers; then subsequently reflecting on the experience and what was learned about both the subject and information use in that context.

SOCIAL IMPACT FRAME

View of IL	IL issues are important to society
View of Information	Information is viewed within social contexts
Curriculum focus	How does IL impact society?
View of teaching and learning	Teachers role is to challenge the status quo. Learning is about adopting perspectives that will encourage social change.
View of content	Reveals how IL can inform widespread or important social issues or problems
View of assessment	Designed to encourage experience of the impact of IL

Social impact

- Users of this frame usually adopt a social reform orientation. Their interest is in how IL impacts society, in how it may help communities inform significant problems.
- A typical example might involve focussing learners' attention on various issues and values associated with problems surrounding the Digital Divide, and proposing tasks related to policy, technology or training designed to assist in bridging that divide.

RELATIONAL **FRAME**

View of IL	IL is a complex of different ways of interacting with information
View of Information	Information may be experienced as objective, subjective or transformational
Curriculum focus	Bringing about awareness of the critical ways of seeing or experiencing
View of teaching and learning	Teachers bring about particular ways of seeing specific phenomena; learning is coming to see the world differently
View of content	Examples selected to help students discover new ways of seeing. Critical phenomena for learning must be identified.
Assessment	Designed to reveal ways of experiencing

Relational Frame

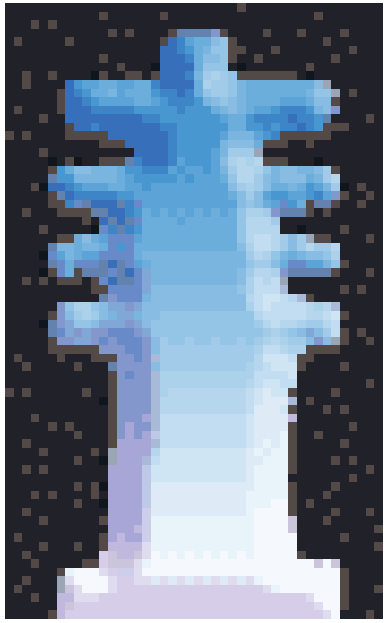
- Users of this frame are oriented towards the ways in which learners are aware of IL or specific relevant phenomena associated with IL. They are interested in designing experiences that help learners discern more powerful ways of seeing the phenomena in question.
- A typical example might involve helping students learn to search the internet by designing experiences that focus their attention on previously undiscerned aspects of the experience

- What are the challenges of environments where teaching and learning and IL are seen differently?
- How can we use an appreciation of different ways of seeing to progress the practice of IL education?

The third challenge

Bringing about curriculum integration – some lessons from the relational frame

Supporting Delors' Four Pillars of Learning

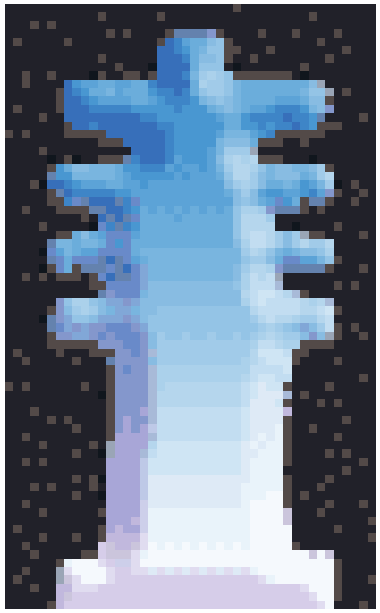


Bringing the information practices of the real world into the curriculum supports *learning to do*, …. experiences are designed to introduce learners to the information practices that will support professional, civic and personal life.

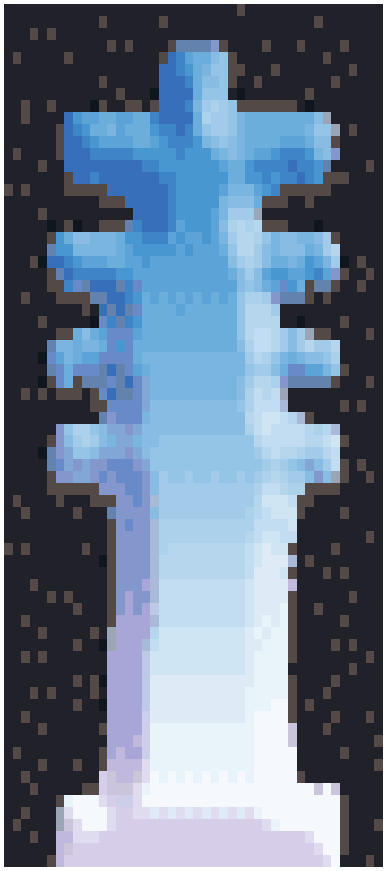
The emphasis on critical and creative thinking, communication team-work and wisdom that are integral to an information literacy education support the fourth pillar: *learning to be*

Pillar graphic courtesy of:
http://www.ancientnile.co.uk/">Ancientnile - Free ancient Egypt graphics

Supporting Delors' Four Pillars of Learning



The use of real world learning resources supports *learning to live together*, bringing the world into the classroom, or perhaps taking the classroom out into the world.



Using information to learn is essential to *learning to know*, as learners seek knowledge from the exploding range of resources available to them and develop a critical appreciation of the relative value of those resources.

Pillar graphic courtesy of:
http://www.ancientnile.co.uk/">Ancientnile - Free ancient Egypt graphics

Transform your view of information

- The wind in the trees is inspiration to the choreographer, danger alert to the weather man, notice of changing seasons to the farmer

- The rain ensures water for the dams, playspaces for children, an object to measure for the scientist, a source of healing for the tired and weary, the essence of the musician’s next piece

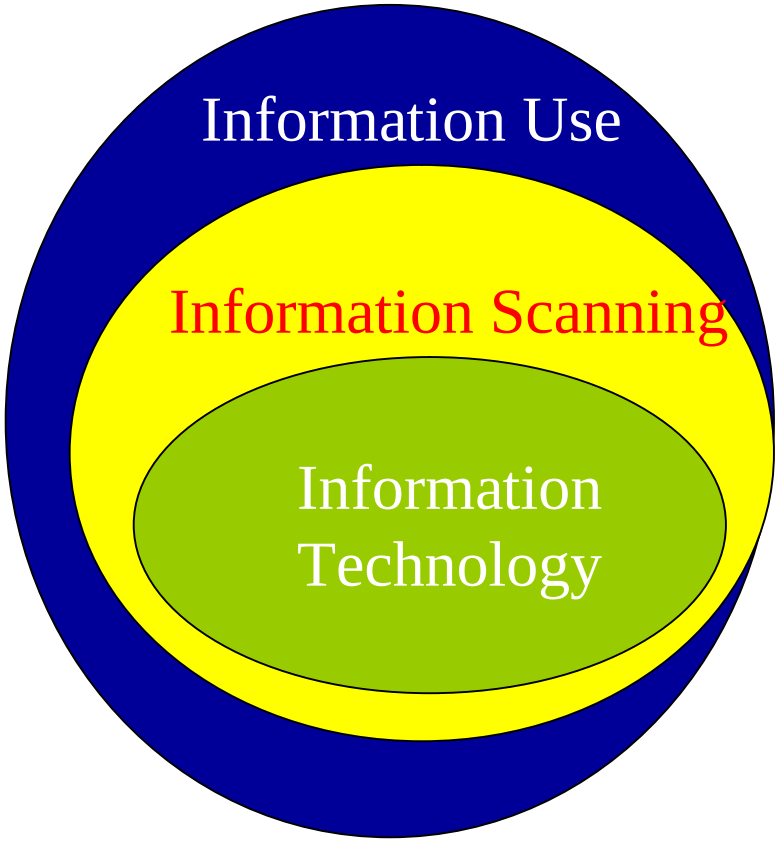
- What constitutes information differs for each user and how that information is used differs as well.

Transform your view of information literacy

- There are many ways in which it can be experienced
- The importance of IT varies in each experience
- IL is a social, more than an individual phenomenon
- There is a strong relationship between IL and learning to learn

- Bruce, C (1997) Seven Faces of Information Literacy, Auslib Press, Adelaide.

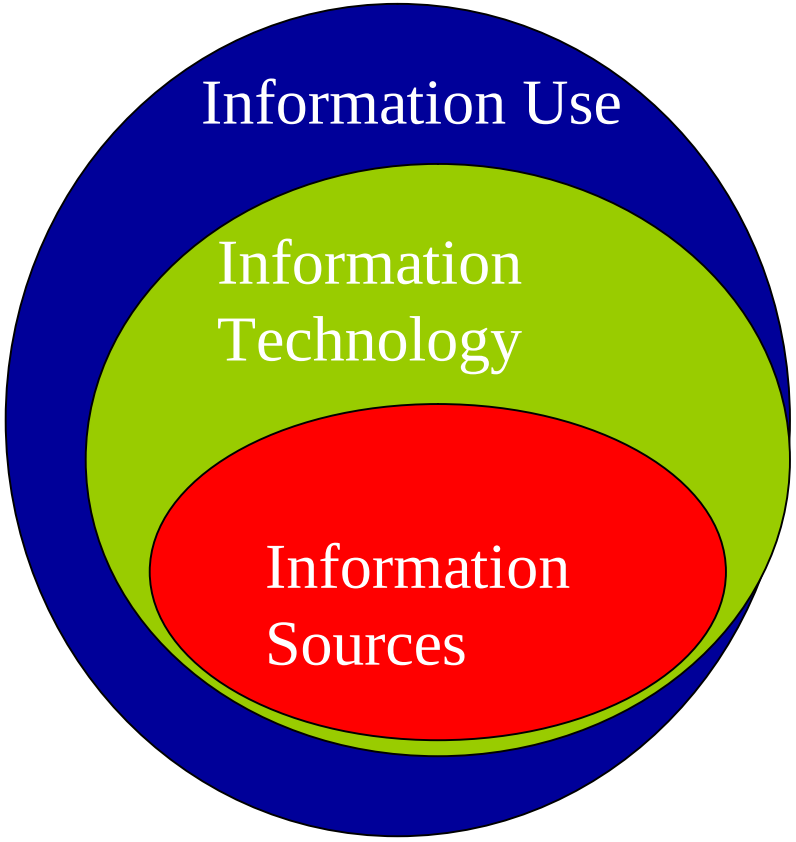
First Face : IL experienced as using IT to stay informed and to communicate



- IT used for information awareness
- IT helps users stay informed/communicate
- a social experience – not individual
- dependent on expertise within a group

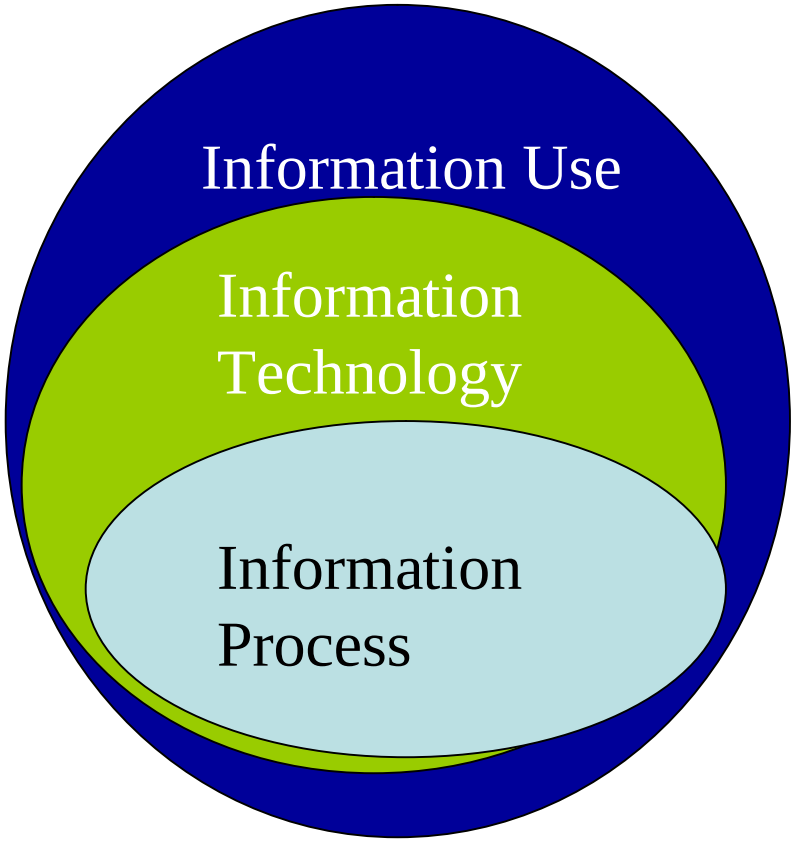
- Bruce, C (1997) Seven Faces of Information Literacy, AUSLIB Press.

Second Face : IL experienced as using Info Sources



- bibliographic
- human
- organisational
- assistance of intermediaries emphasised
- Personal skills also valued

Third Face : IL experienced as using info Processes

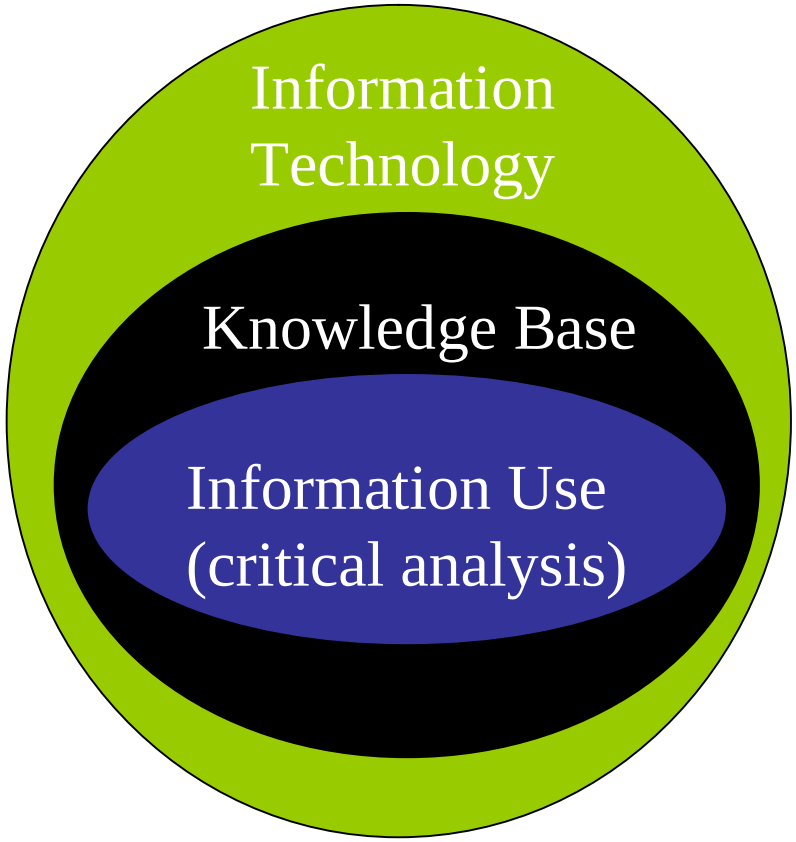


- linked to problem-solving, decision-making
- requires personal heuristics
- a ‘creative art’

Fourth Face : IL experienced as controlling information

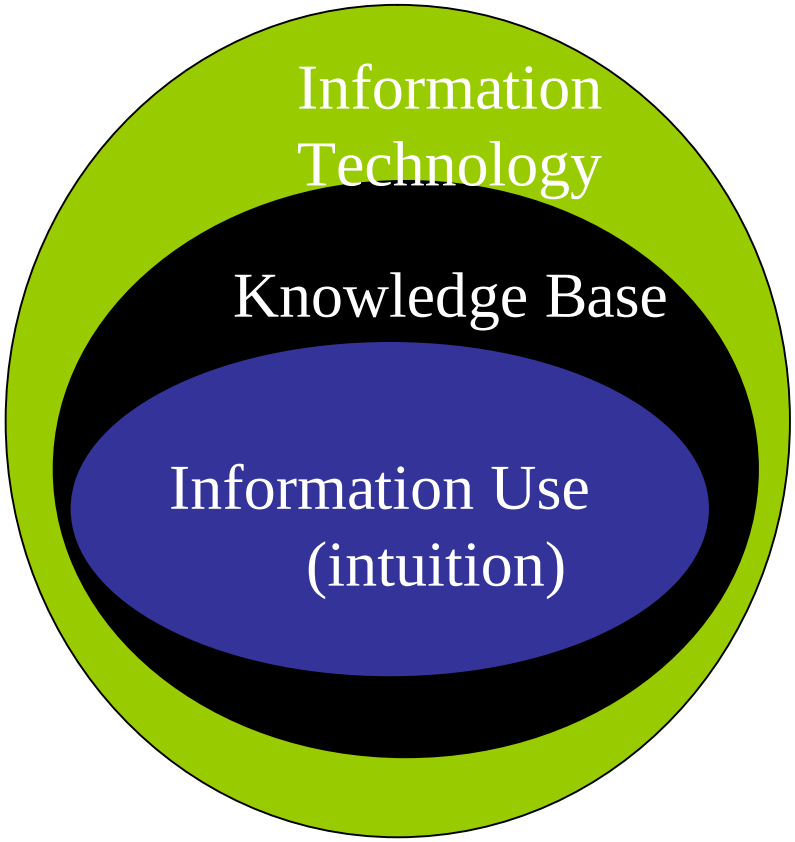
- recognising relevant information
- managing that information
- making connections between information, projects, people
- interconnectedness between information and parts of projects

Fifth Face : IL experienced as constructing knowledge in an unfamiliar area



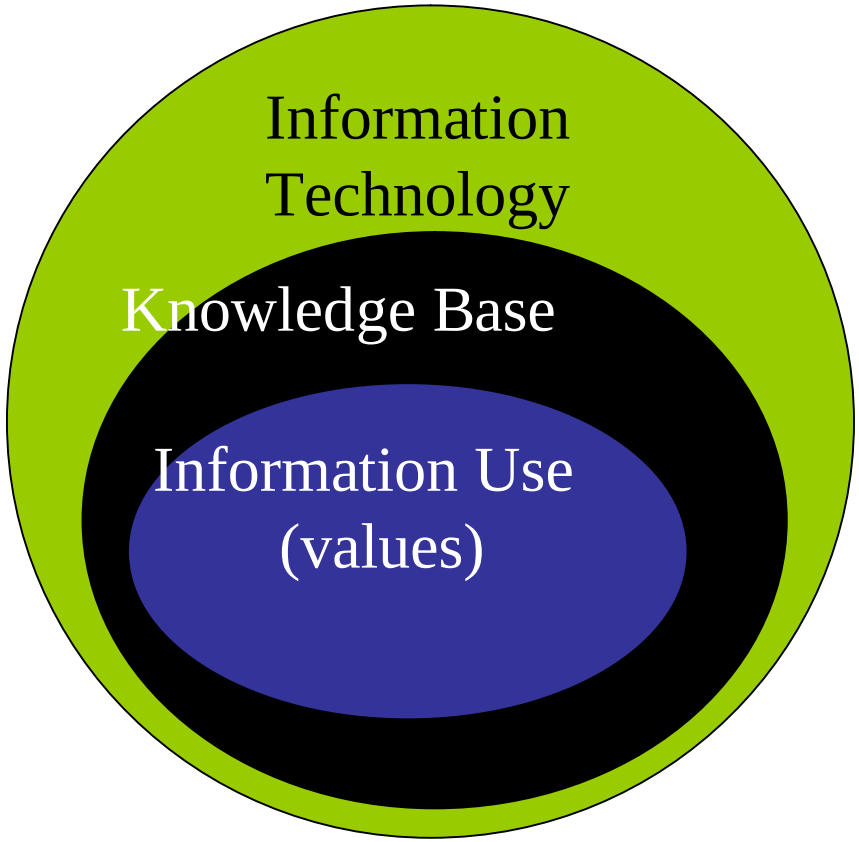
- emphasis on learning
- Developing a personal perspective with knowledge gained
- dependent on critical thinking

Sixth Face : IL experienced as extending knowledge



- personal knowledge + experience + creative insight/intuition
- mysterious experience
- develops new knowledge/ approaches to tasks/novel solutions

Seventh Face : IL experienced as using information wisely



- personal quality
- values and ethics combined with knowledge
- information used for the benefit of others

From a relational perspective:

- Being information literate is about having access to different ways of experiencing information use
- IL is a way of thinking and learning about aspects of subject matter

Christine Bruce (1997) Seven Faces of Information Literacy, Auslib Press, Adelaide.

In the relational model:

.

- Students have different ways of approaching information seeking and use

- These different ways of approaching information seeking and use correlate with different levels of learning outcome

Louise Limberg (2000) Information Literacy Around the World

In the relational model

The focus is on

- People’s information practices, or information experiences
- People’s different ways of interacting with information

- Forming these experiences becomes the purpose of information literacy education

Effective **information literacy education requires explicit attention to information processes – as well as the careful crafting of real world information practices, and meaningful reflection, into curricula.**

Teaching approaches

As professional educators we have opportunities to:

- diagnose the existing range of learners' information literacy experiences,
- deepen those experiences with which they are familiar, and
- usher them into previously unfamiliar experiences
- draw on workplace, study and everyday life contexts

Towards Action: a suggested thought process

- What general learning needs will students have in future? (eg to keep up to date with new developments)
- What real world activities will they need to engage in? (eg monitoring their learning needs, scanning developments in field of interest)
- What could students do in our courses to prepare them? (eg develop & implement a current awareness strategy…)

- Bruce, C and Candy P, (2000) Information Literacy Around the World,Charles Sturt Uni Press.

What information practices should be emphasised?

- These may come from the experience of the teacher – ie new professionals need to be able to….
- From research – professionals in area x appear to engage in the following kinds of information practice…
- From external stakeholders including professionals..

The fourth challenge

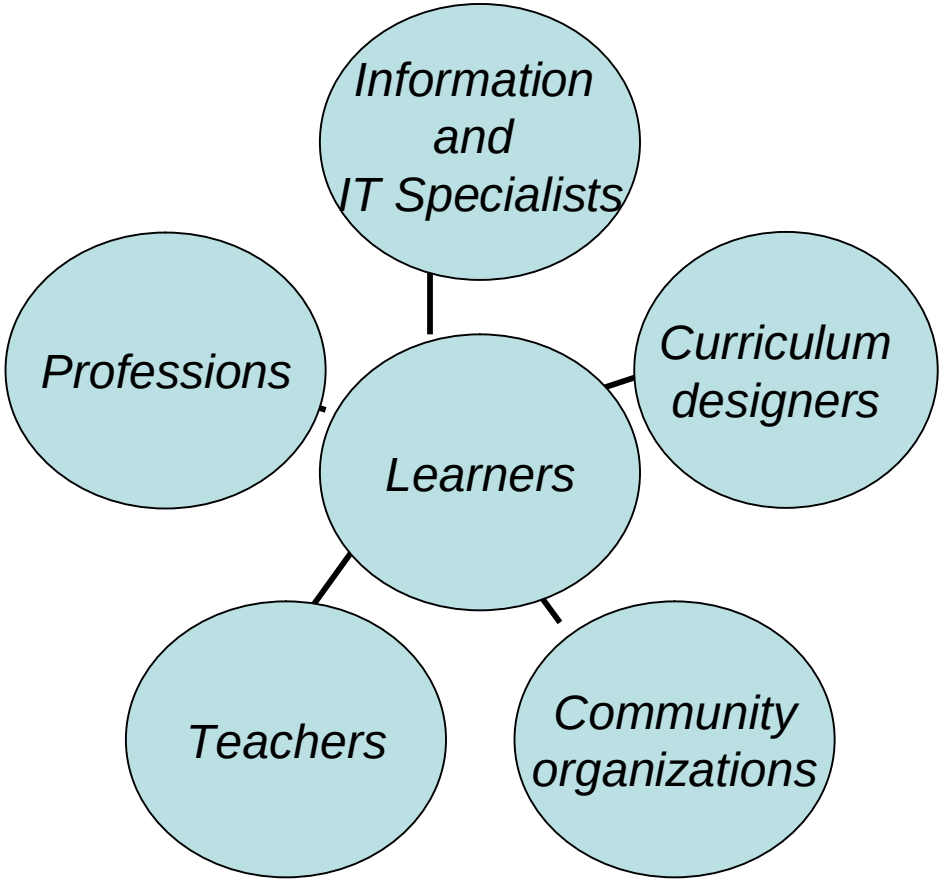
Being agents of change

RACER model for successful implementation of IL programs Bruce, 2005

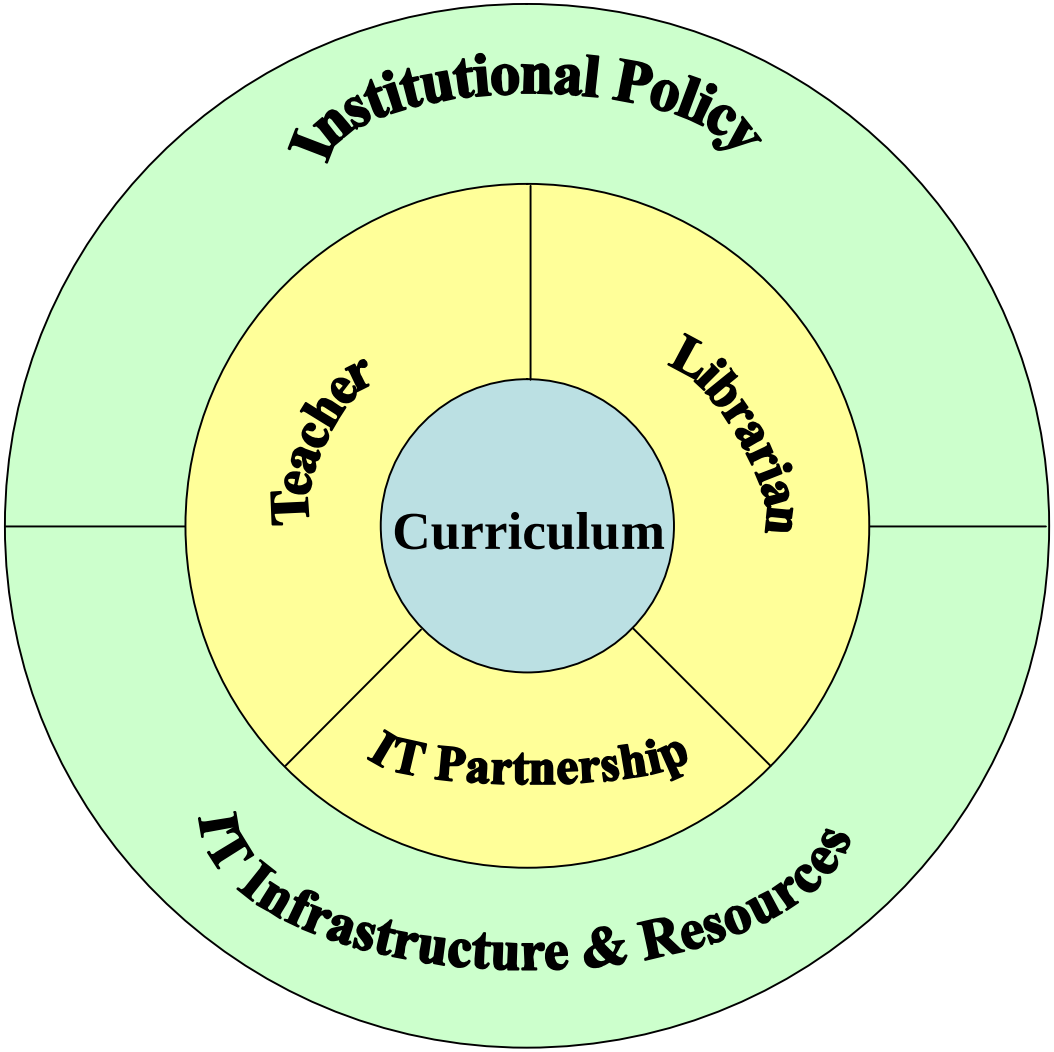
- **R**ecognise different perspectives and roles
- **A**ccept diversity
- **C**hange with support
- **E**valuate the process and outcomes
- **R**esearch the future

Partnerships between key personnel

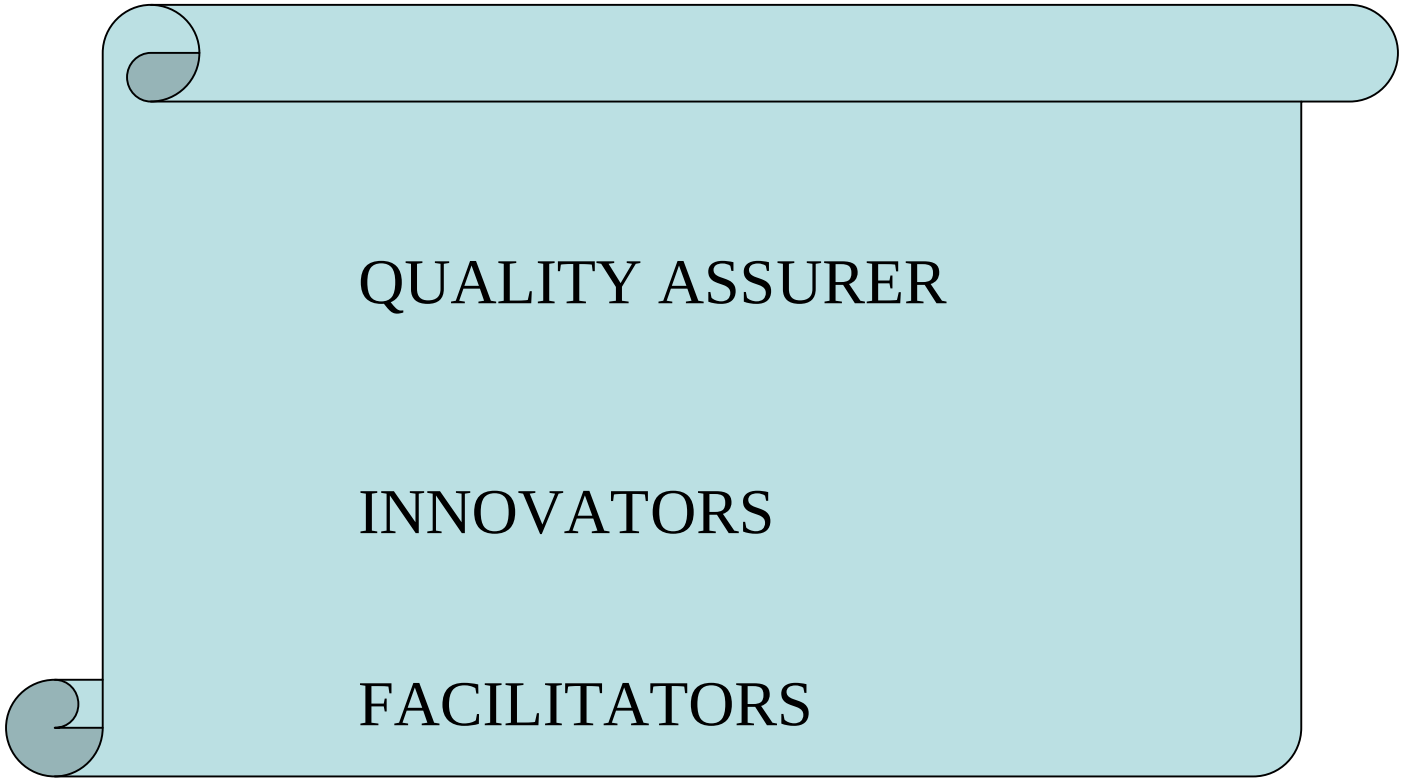
Many roles make information literacy education possible:



Successful IL initiatives



Diverse roles for change agents



Diverse motivations for participants

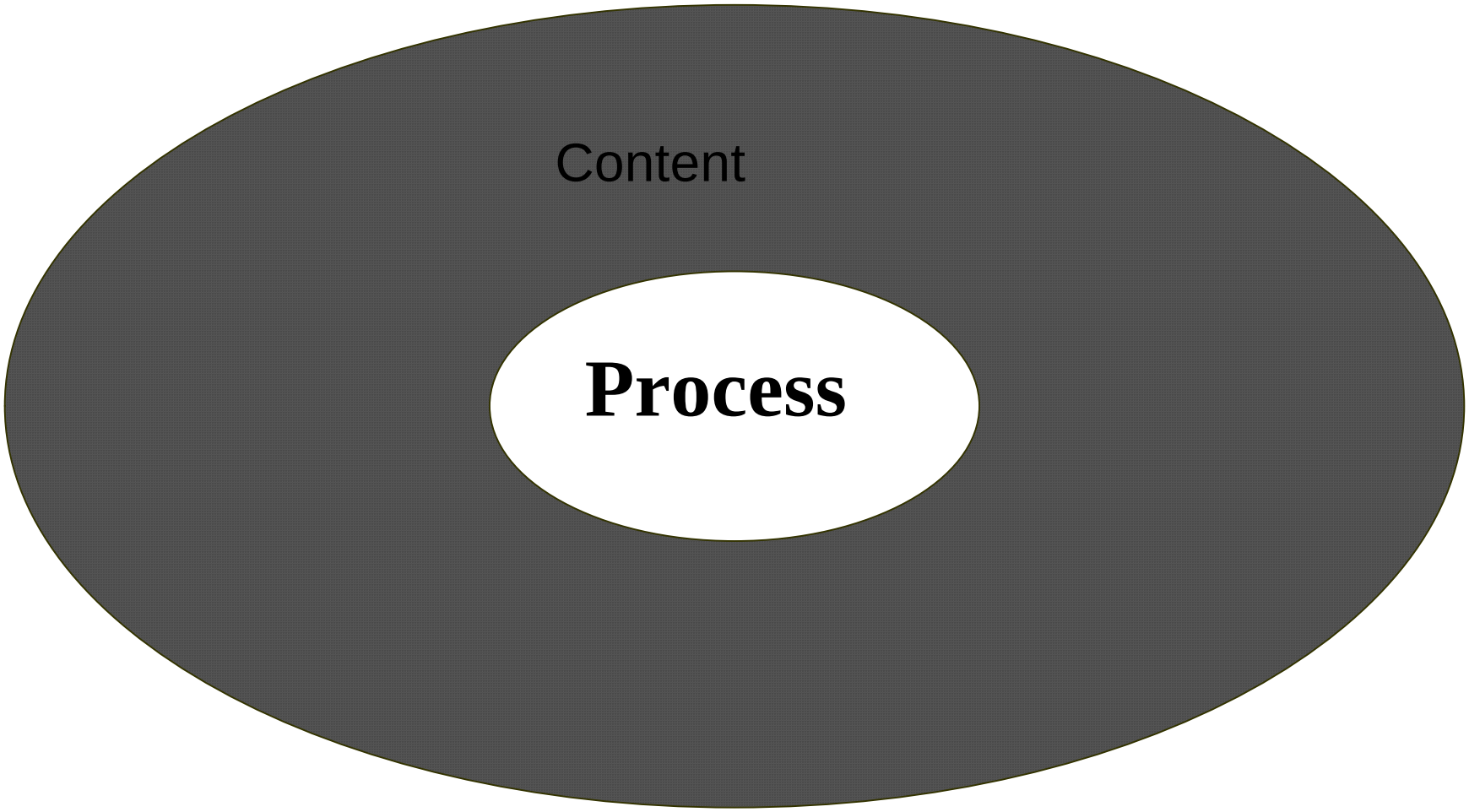
- Because they want to
- Because they are happy to experiment
- Because they have to

- Why will people get involved in the IL agenda?

Promote change in values

- **Adoption of information literacy education is most likely to take root in contexts where there is simultaneous emphasis on educational best practice.**
- **Shifting from a content to a process orientation toward teaching, from a teacher-centred to a learner-centred view of learning.**
- **Increased emphasis on understanding the perceptual worlds of students and their pedagogical implications.**
- **Teachers who value the new paradigms find it much easier to embrace information literacy education.**

The hard curriculum model



Tackle the hurdles

Hurdles in such programs are:

1. **Understanding that information literacy is not a pre-requisite to learning, we are not talking about a program of remediation, but rather about actualizing a way of learning.**
2. **Modifying, changing or constructing new designs for learning experiences.**
3. **Changing how much we expect students to learn; in a process approach content is no longer paramount, but rather ability to learn.**
4. **Technology; learning to use technology and learning to use technology to support learning.**

Challenges we face

1. **Understanding that information literacy is not a pre-requisite to learning, not a program of remediation, but rather about actualizing experiences of information use.**
2. **Modifying, changing or constructing new designs for using information/learning.**

Explain why we should foster IL in students?

- To prepare them for independent/informal learning at work and in civic and personal life
- To meet the requirements of accrediting bodies, professional associations and employers
- To meet the requirements of learning contexts - eg inquiry problem-based or action learning.
- To equip them to learn in ever changing information and technology environments
- satisfy both ‘earner-learners’ and those seeking a liberal education

Evaluate the outcomes

- Understand teachers' perspectives
- Understand learners' perspectives

- Understand the impact on learning
- Understand the barriers to the new way of doing things

Research the Future

Prague Meeting of Experts 2003 Research Recommendations

- National Case Studies
  - **Research existing technology, relationships between information literacy and business and possible benefits to communities.**
  - **Identify those with the power to act on government initiatives.**

- People, Culture and Health
  - **Identify existing research and create database of studies, results and best practice.**
  - **Establish interdisciplinary research council and funding for research.**

IL Meeting of Experts 2003

- Education and Learning
  - **Investigate the character of IL in different environments and organisations such as :**
    - **public and proprietary environments, oral learning communities, digital environments, professional and community contexts.**
- Economic Development
  - **Identify the impact of IL on economic development including cost benefit/value analysis of workplace programs.**
  - **Establish the relationship between IL and effective knowledge management.**
- Policy and Information Literacy
  - **Identify and collect research relating to the impact of IL.**
  - **Compare the results of programs with and without IL policies.**
  - **Develop and undertake coordinated and systematic cross-sectoral, comparative, longitudinal research projects.**

Lifelong Learning: Who's responsibility ?

Information Literacy: who's responsibility ?

Information literacy transforms

Information literacy brings about learning

One student comments...

- I now understand that education is about being empowered to learn rather than about being dependent on the teacher for acquiring knowledge and skills...