

# Information Literacy: research into practice

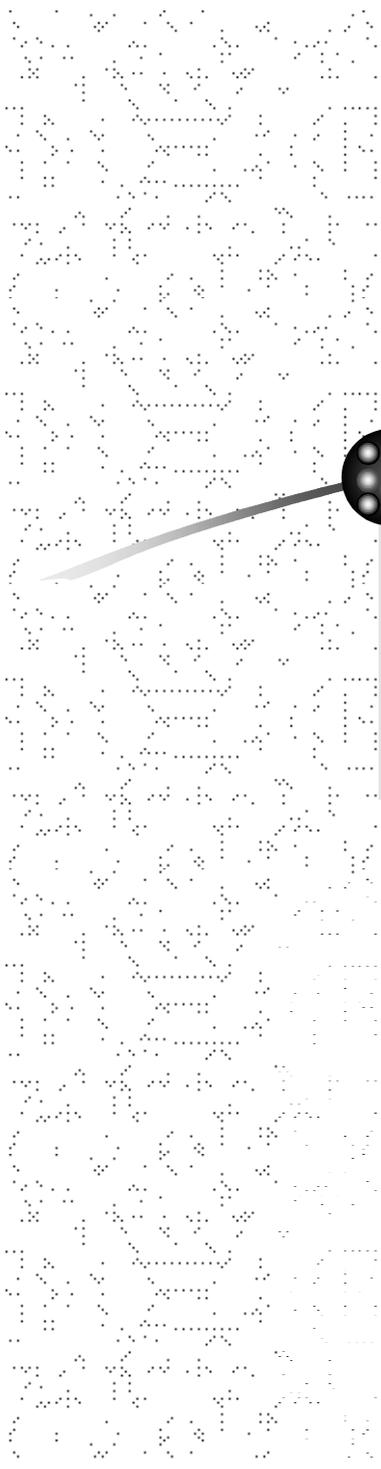
Christine Bruce, PhD

Goteborg University, 2001

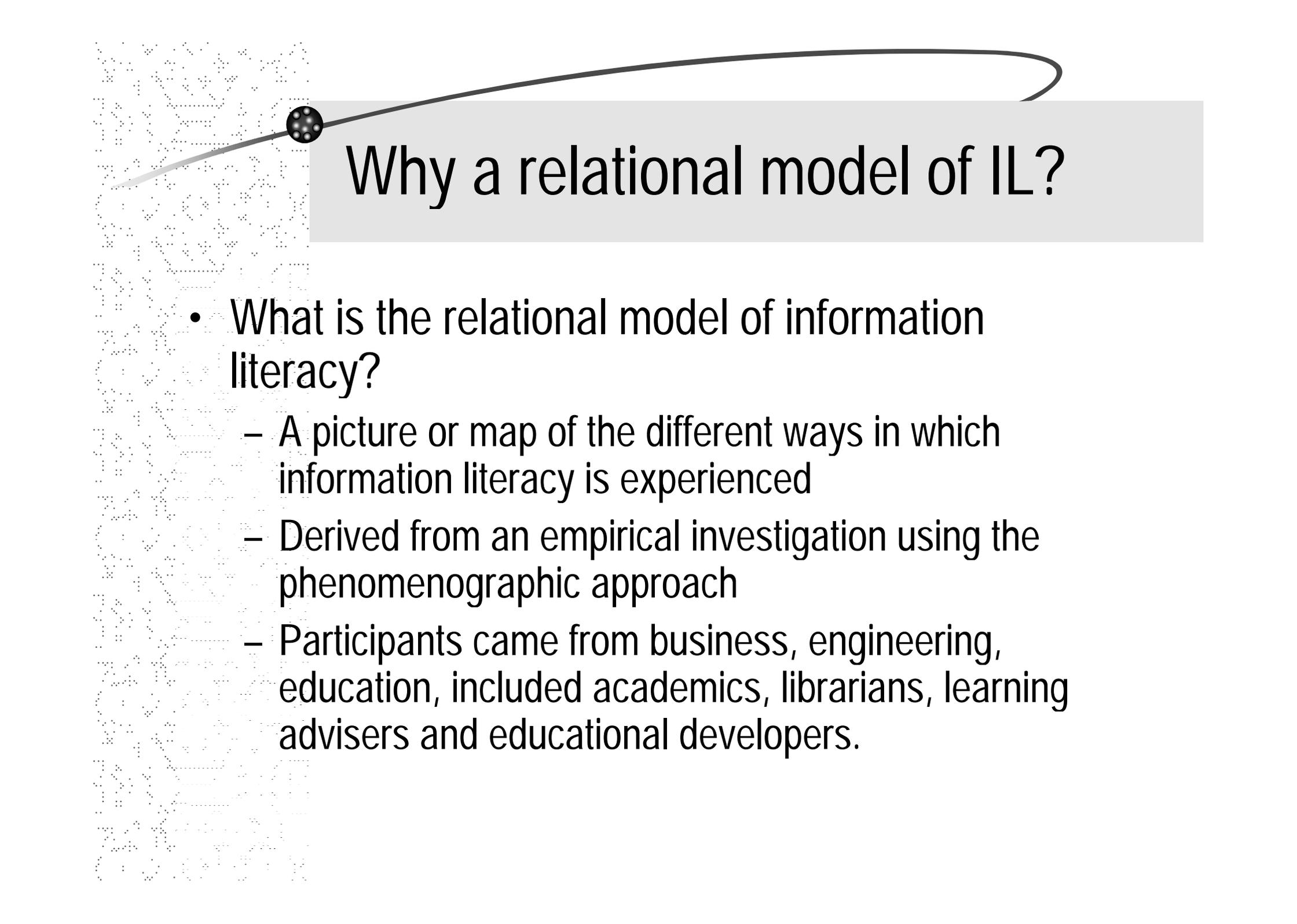


# Our agenda

- What are the strengths of a relational model for information literacy?
- What do the different ways of experiencing information literacy look like?
- How can we design curriculum based on the relational model?
- Fostering strategic partnerships
- Future Research Opportunities
- Conclusion

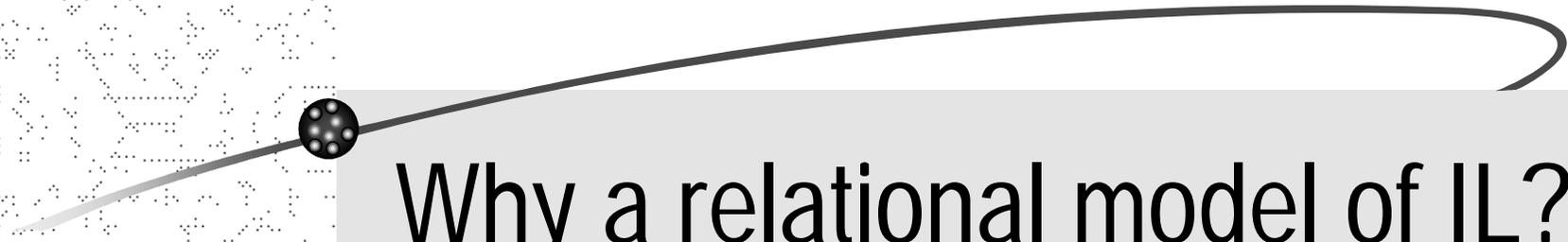
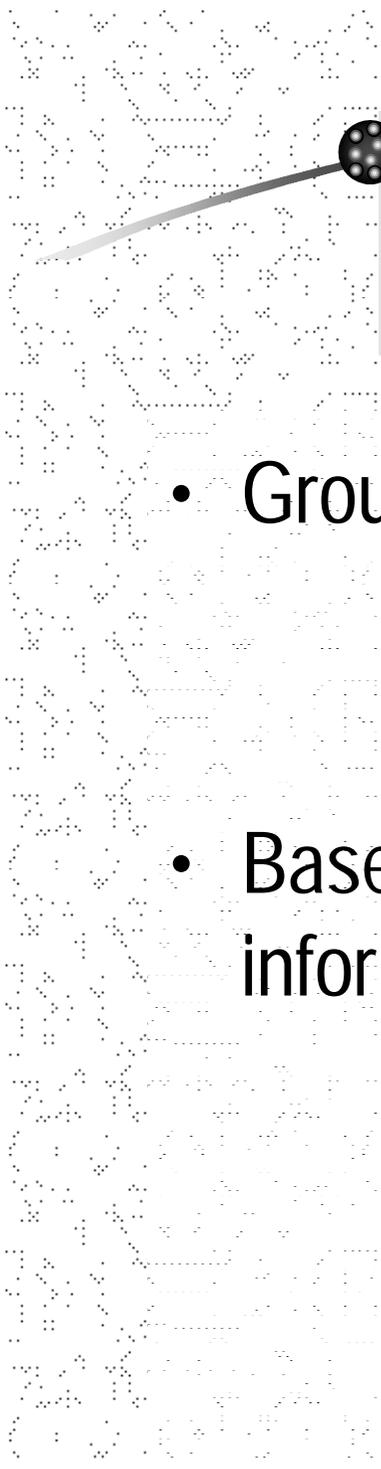


What are the strengths of a relational model for IL?



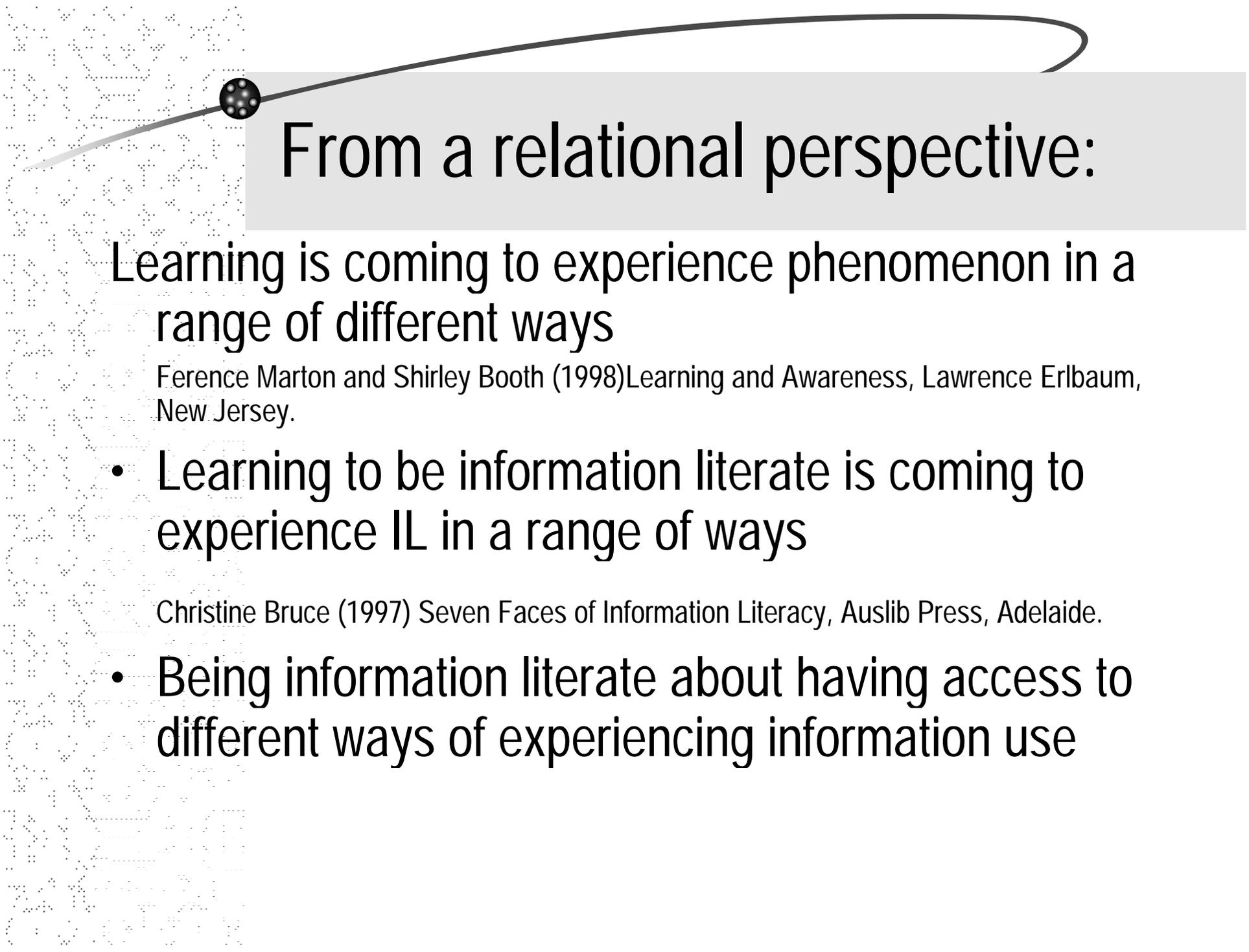
# Why a relational model of IL?

- What is the relational model of information literacy?
  - A picture or map of the different ways in which information literacy is experienced
  - Derived from an empirical investigation using the phenomenographic approach
  - Participants came from business, engineering, education, included academics, librarians, learning advisers and educational developers.



# Why a relational model of IL?

- Grounded in student focused learning theory
- Based on people's real life experiences with information



## From a relational perspective:

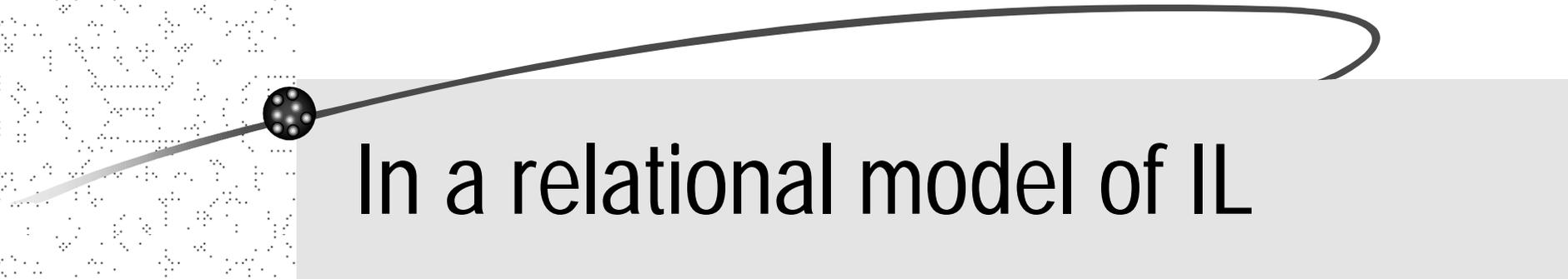
Learning is coming to experience phenomenon in a range of different ways

Ference Marton and Shirley Booth (1998) *Learning and Awareness*, Lawrence Erlbaum, New Jersey.

- Learning to be information literate is coming to experience IL in a range of ways

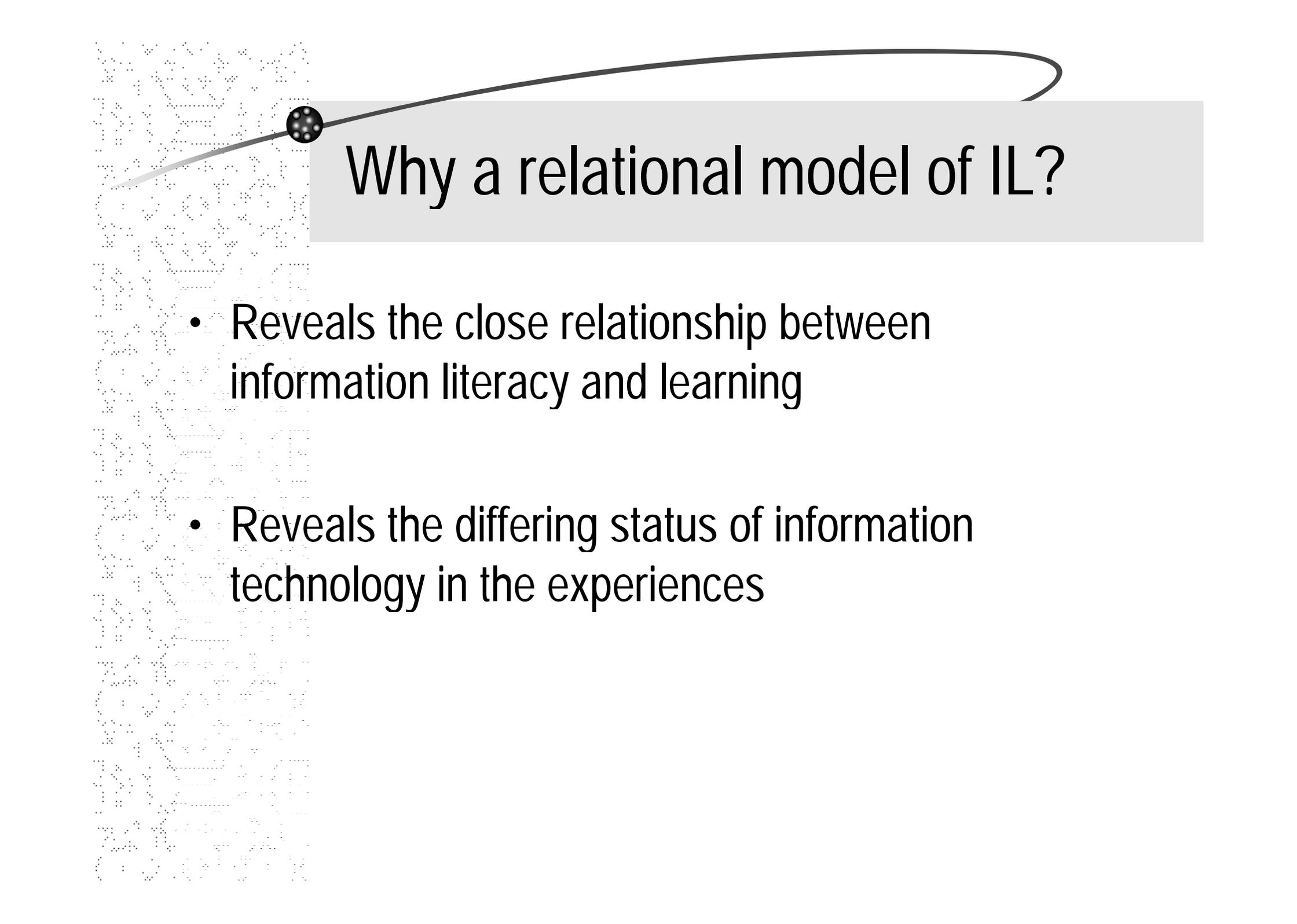
Christine Bruce (1997) *Seven Faces of Information Literacy*, Auslib Press, Adelaide.

- Being information literate about having access to different ways of experiencing information use



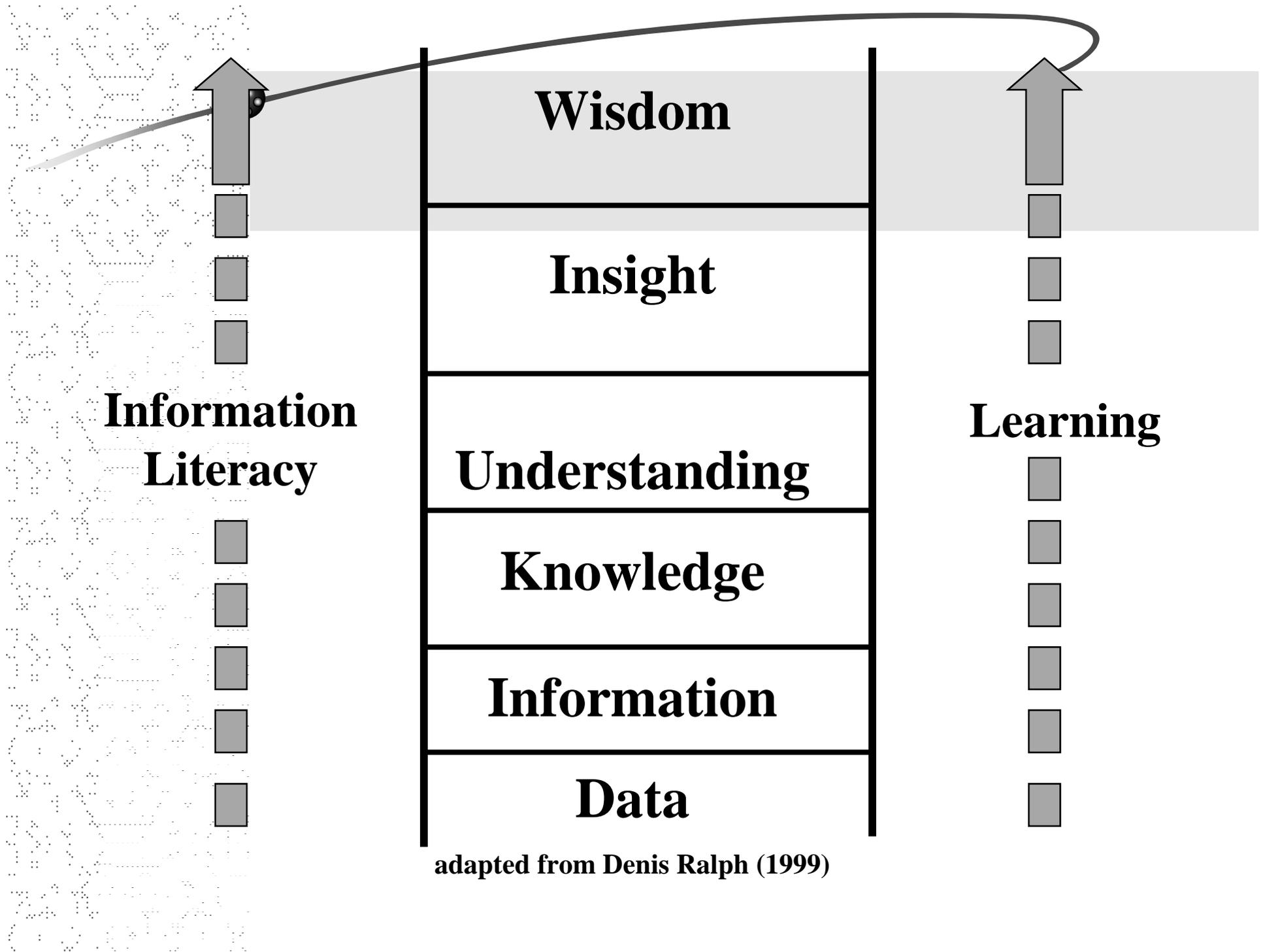
## In a relational model of IL

- Competence is interpreted as experiencing information literacy in different ways, rather than as mastering information skills or knowledge that have a short shelf life in our rapidly changing information and IT environment

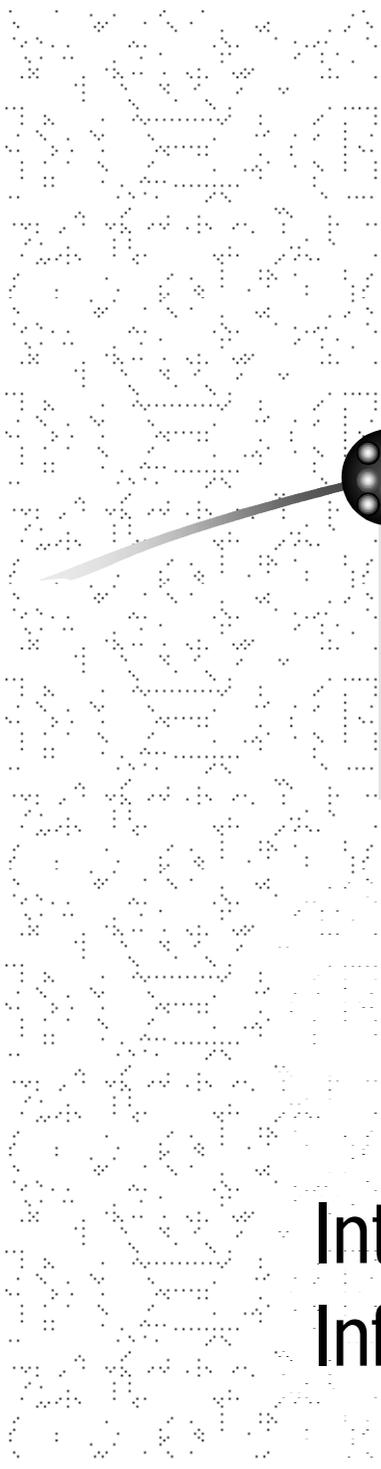


# Why a relational model of IL?

- Reveals the close relationship between information literacy and learning
- Reveals the differing status of information technology in the experiences

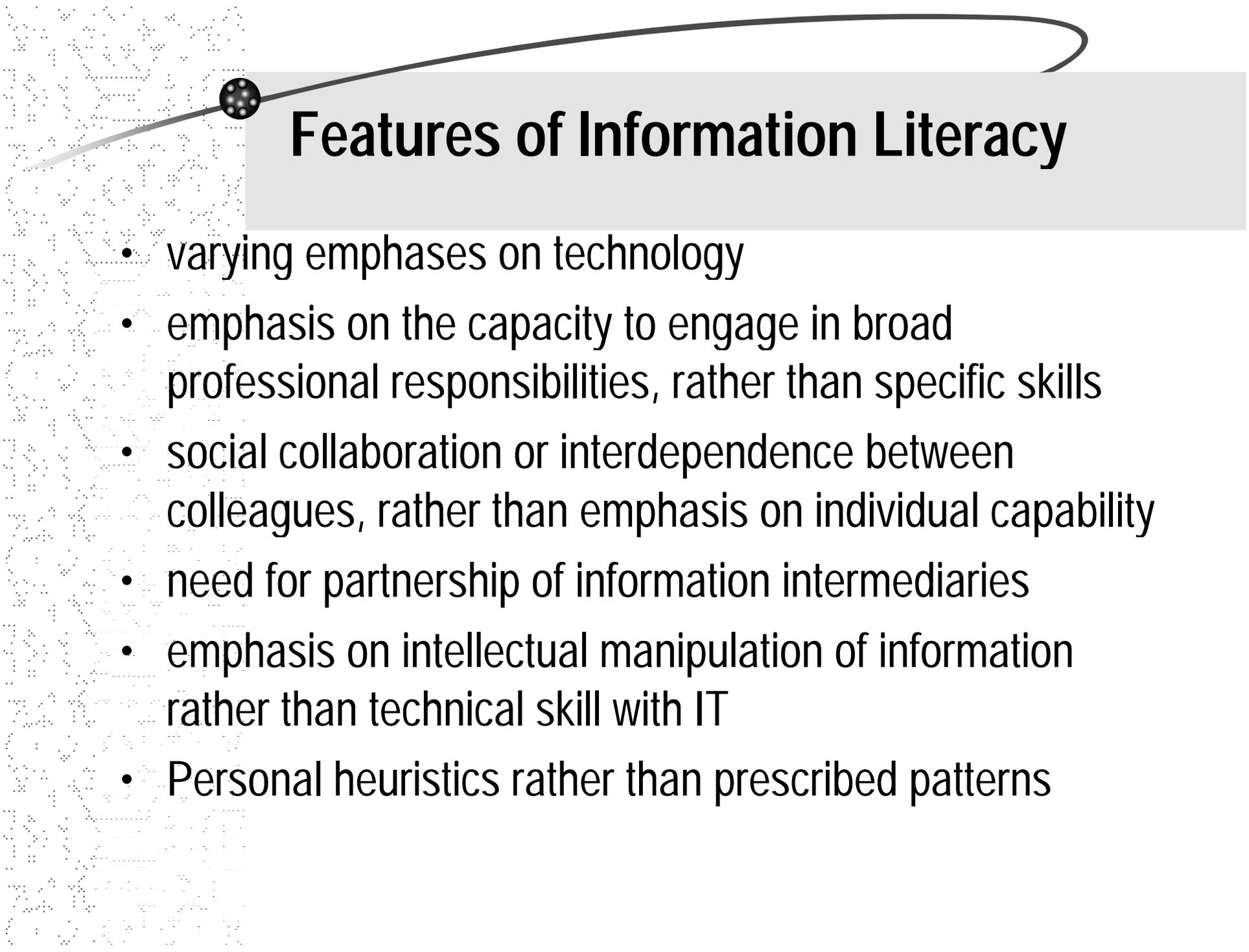


adapted from Denis Ralph (1999)



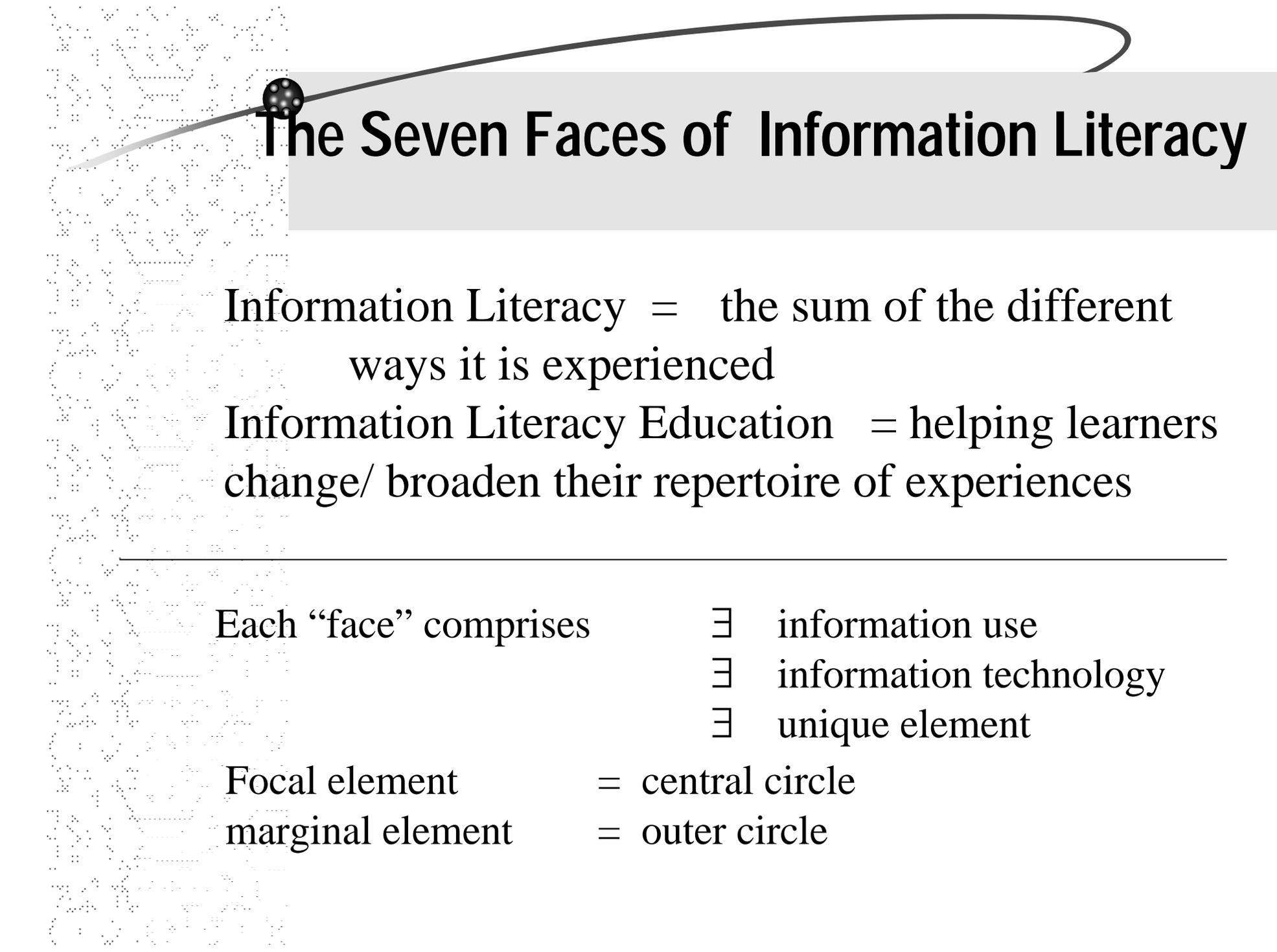
What do different ways of  
experiencing information literacy  
look like?

Introducing the Seven Faces of  
Information Literacy



# Features of Information Literacy

- varying emphases on technology
- emphasis on the capacity to engage in broad professional responsibilities, rather than specific skills
- social collaboration or interdependence between colleagues, rather than emphasis on individual capability
- need for partnership of information intermediaries
- emphasis on intellectual manipulation of information rather than technical skill with IT
- Personal heuristics rather than prescribed patterns



# The Seven Faces of Information Literacy

Information Literacy = the sum of the different ways it is experienced

Information Literacy Education = helping learners change/ broaden their repertoire of experiences

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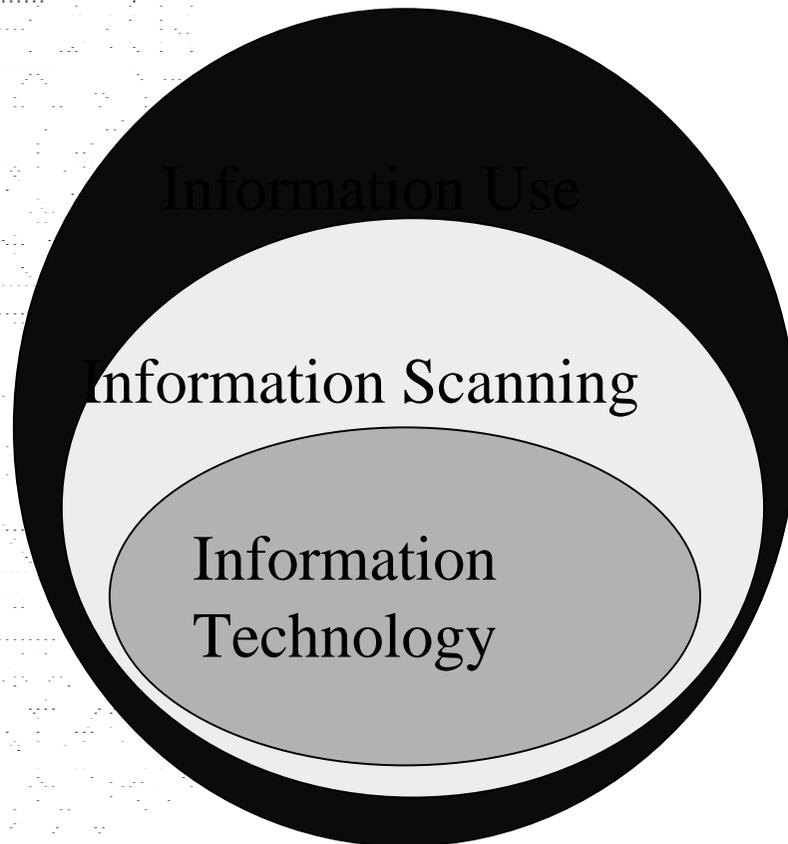
Each “face” comprises

- ∃ information use
- ∃ information technology
- ∃ unique element

Focal element = central circle

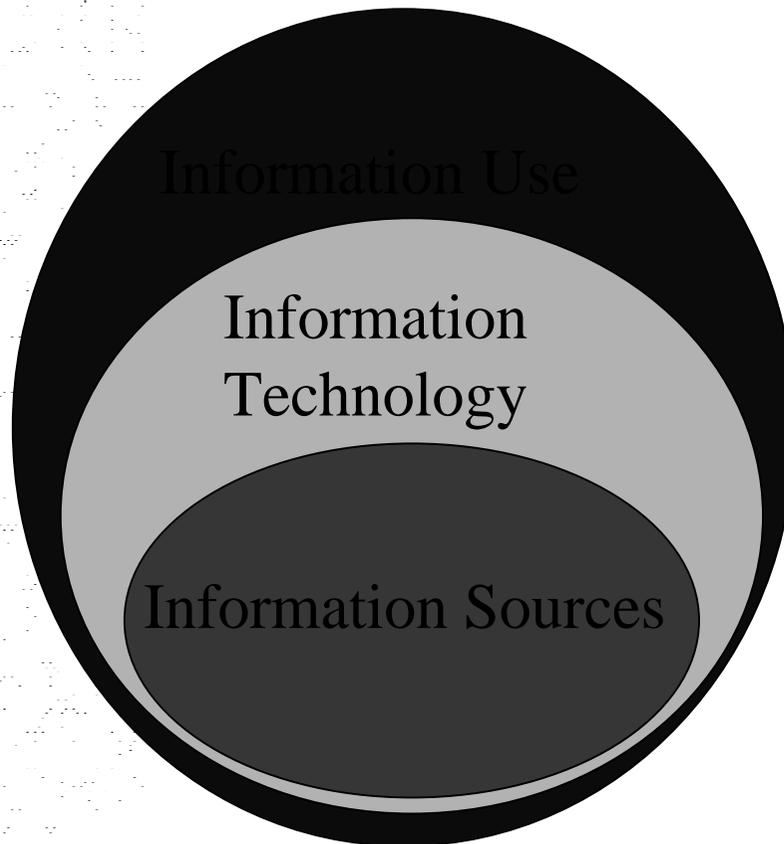
marginal element = outer circle

# First Face : The IT Experience



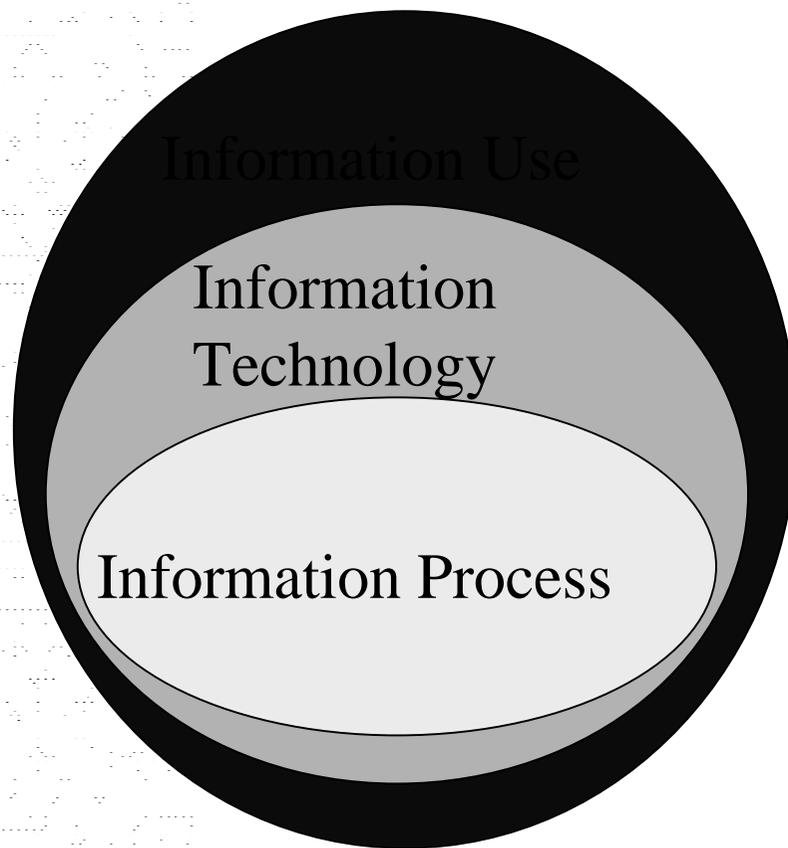
- IT used for information awareness
- IT helps users stay informed/communicate
- a social experience – not individual
- dependent on expertise within a group

## Second Face : The Info-Sources Experience



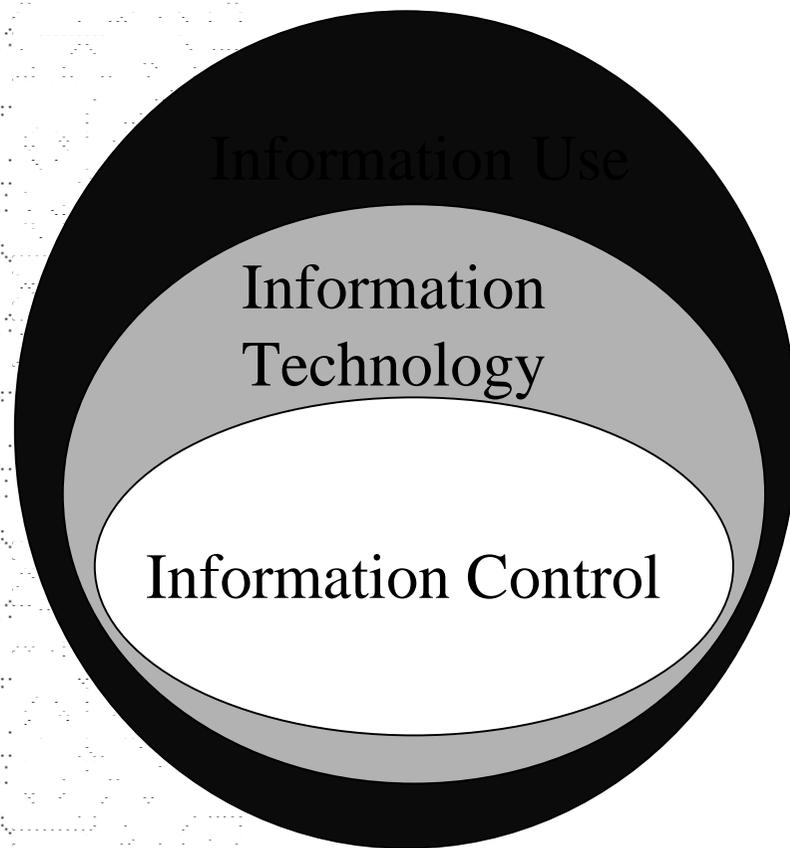
- bibliographic
- human
- organisational
- assistance of intermediaries emphasised
- Personal skills also valued

## Third Face : The Info-Process Experience



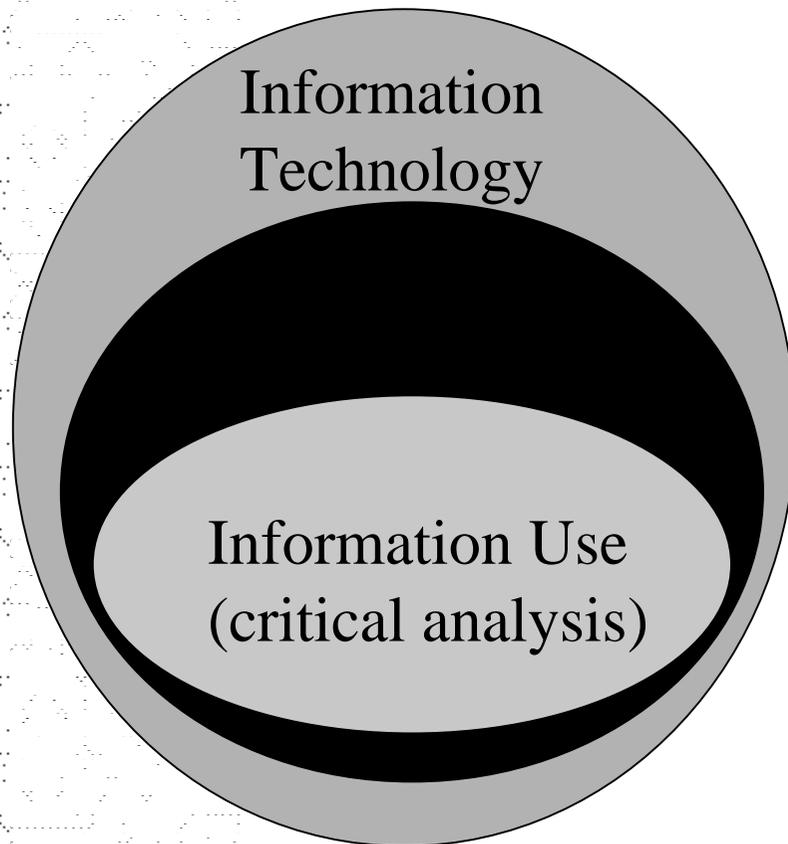
- linked to problem-solving, decision-making
- requires personal heuristics
- a 'creative art'

## Fourth Face : The Info-Control Experience



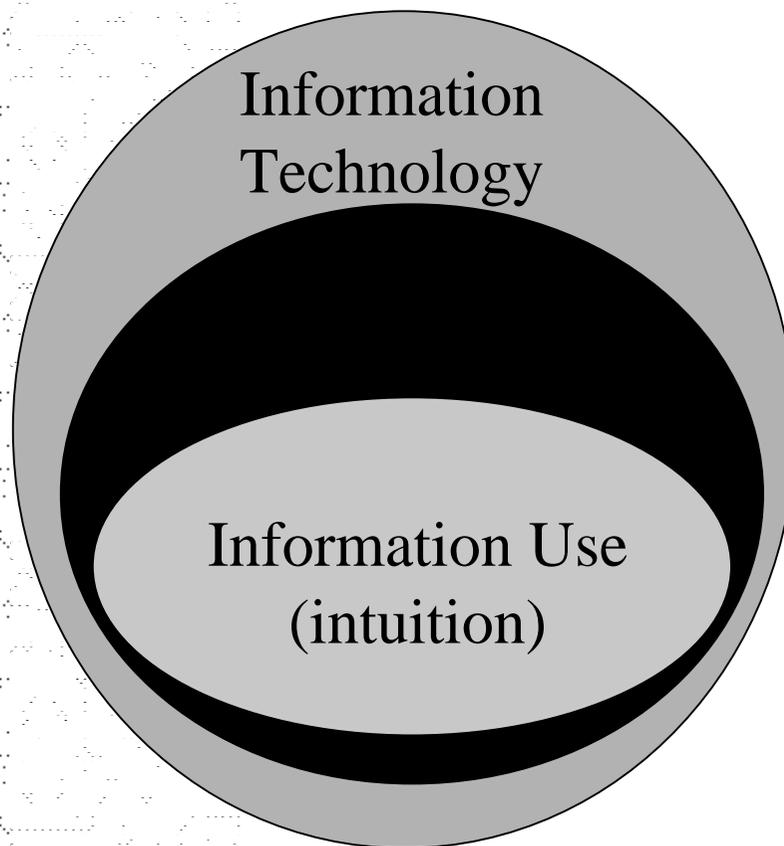
- recognising relevant information
- managing that information
- making connections between information, projects, people
- interconnectedness between information and parts of projects

## Fifth Face : The Knowledge Construction Experience



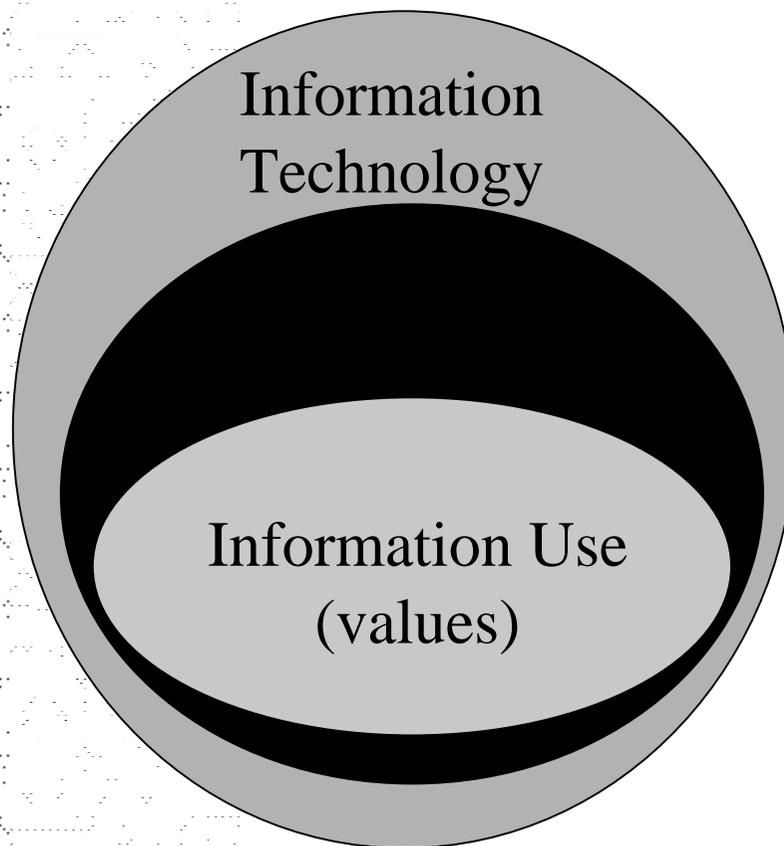
- emphasis on learning
- Developing a personal perspective with knowledge gained
- dependent on critical thinking

## Sixth Face : The Knowledge Extension Experience

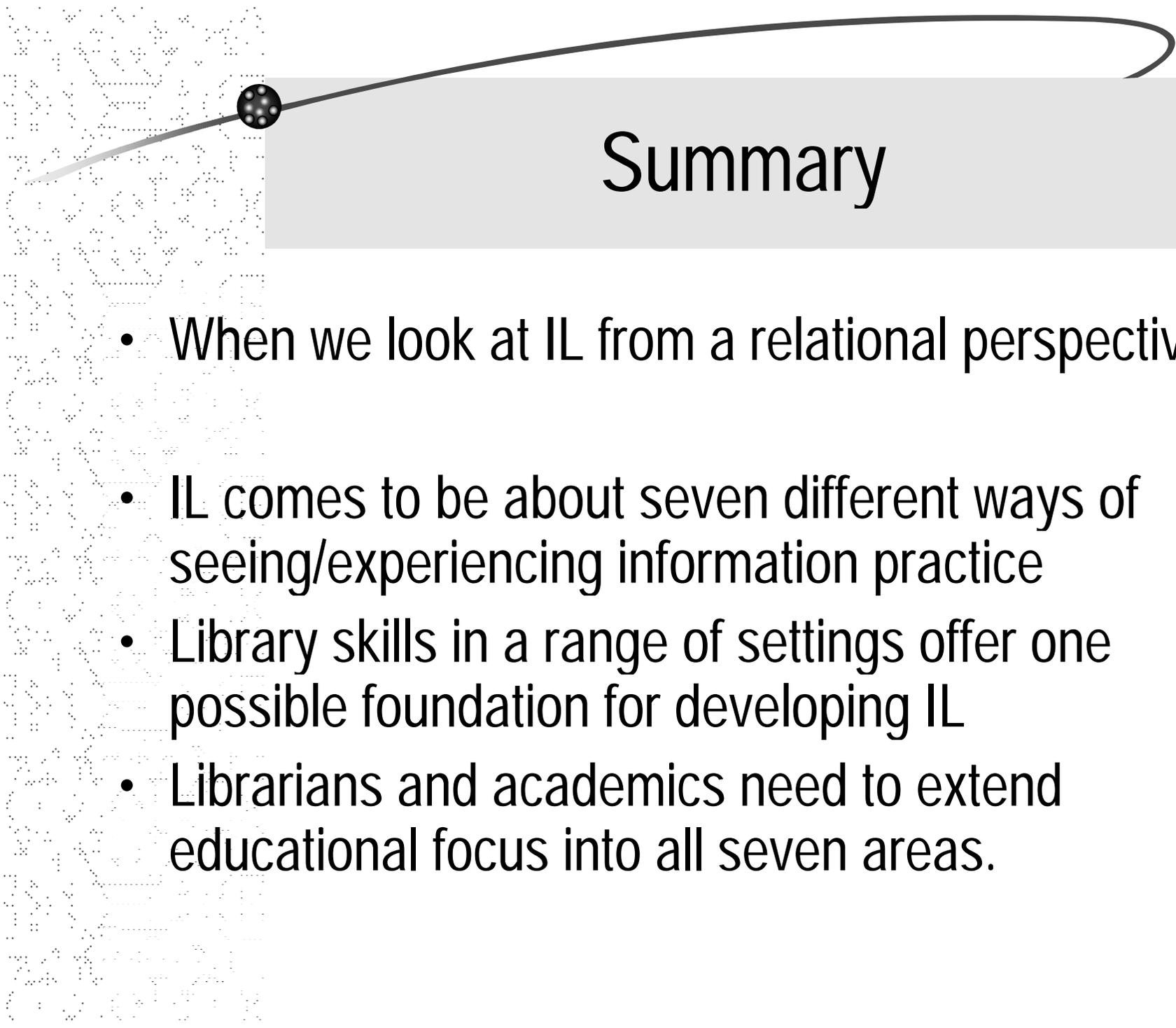


- personal knowledge + experience + creative insight/intuition
- mysterious experience
- develops new knowledge/approaches to tasks/novel solutions

## Seventh Face : The Wisdom Experience

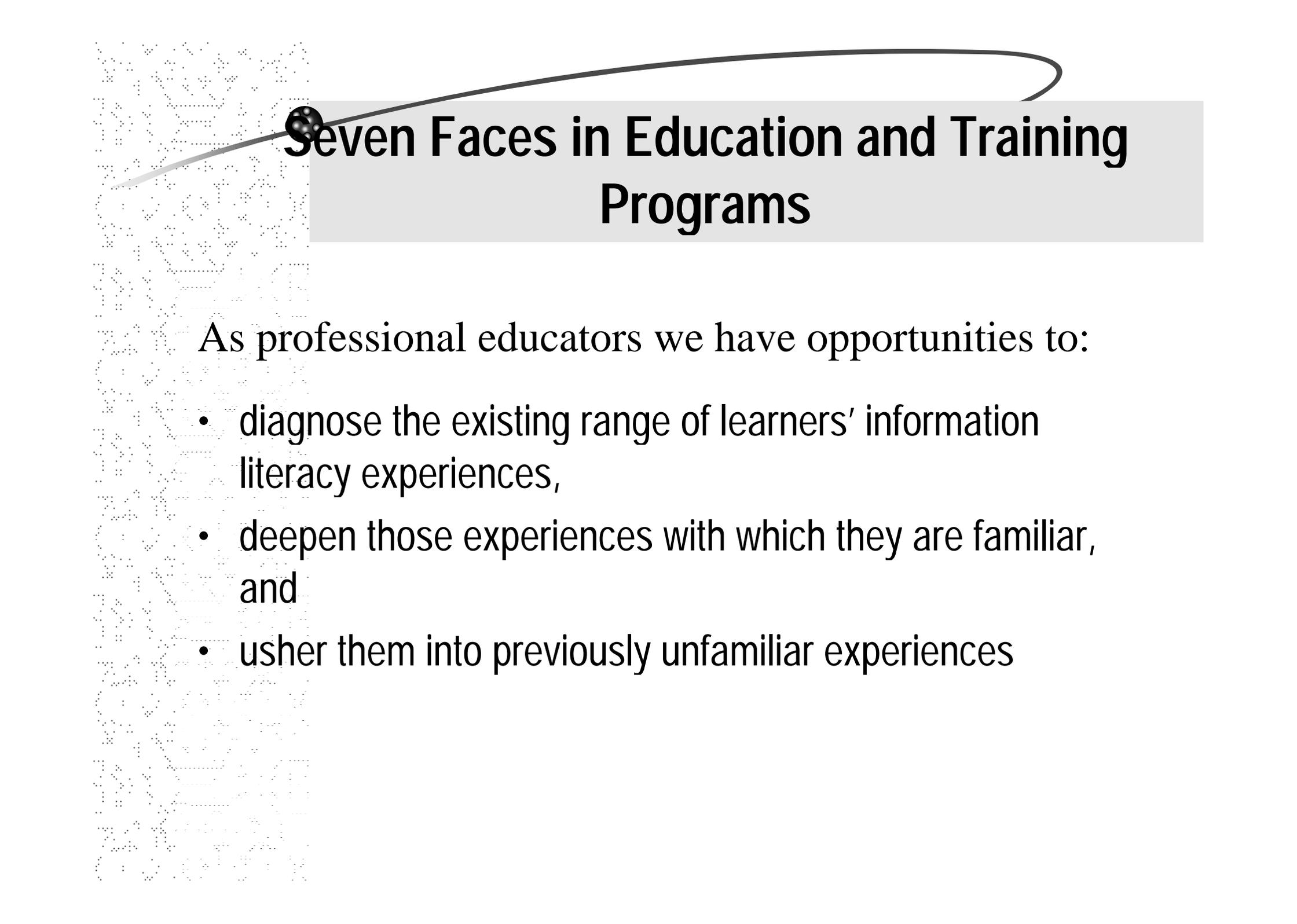


- personal quality
- values and ethics combined with knowledge
- information used for the benefit of others



# Summary

- When we look at IL from a relational perspective
- IL comes to be about seven different ways of seeing/experiencing information practice
- Library skills in a range of settings offer one possible foundation for developing IL
- Librarians and academics need to extend educational focus into all seven areas.



# Seven Faces in Education and Training Programs

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



# Seven Faces in the Workplace (Bruce, 1999)

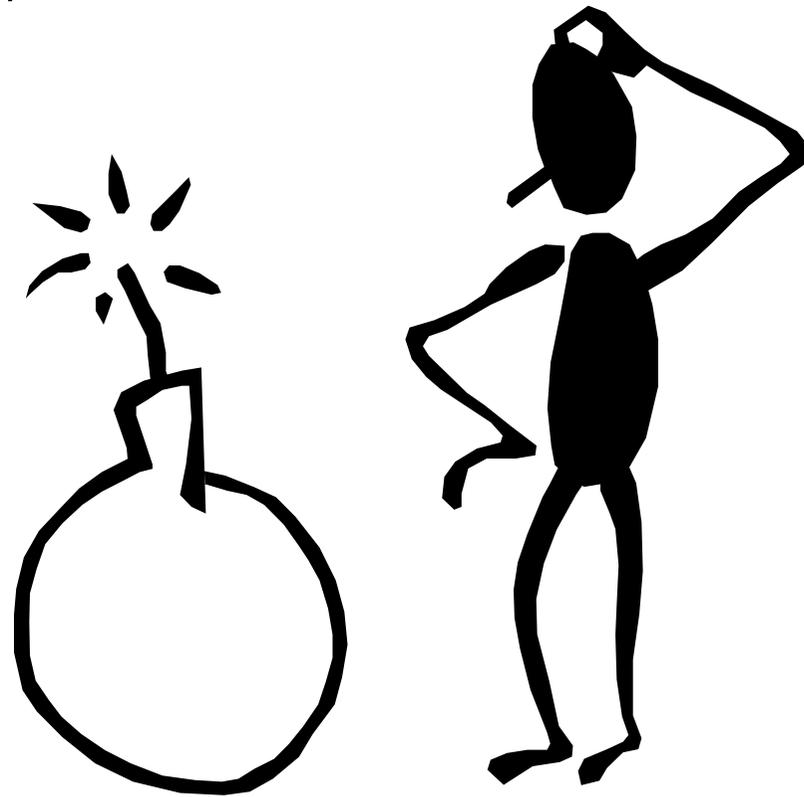
## Seven Faces of IL

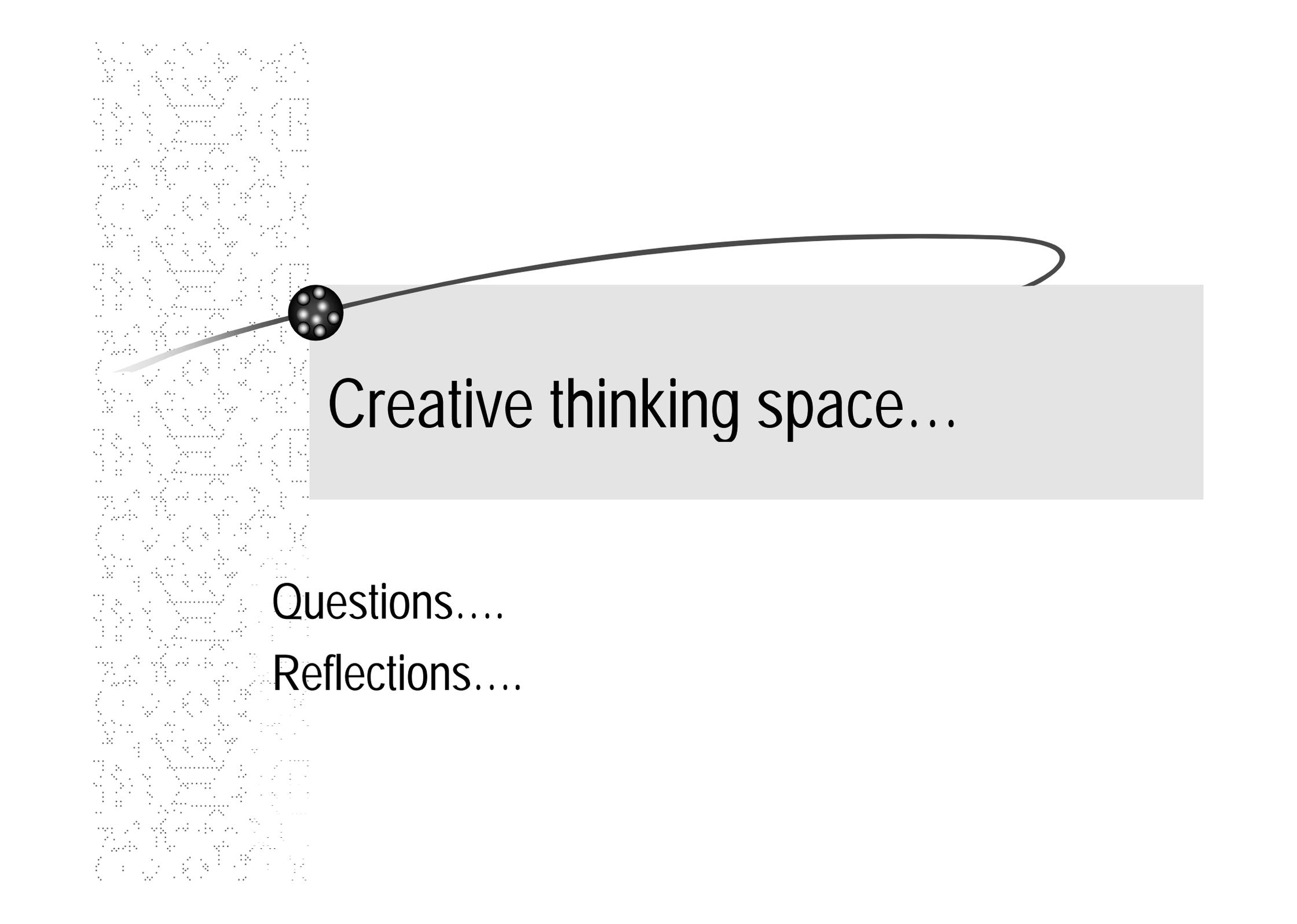
## Workplace Processes

Information technology experience	environmental scanning
Information sources experience	becoming familiar with and using info resources and services
Information process experience	info processing; packaging for internal/external consumption
Information control experience	information management
Knowledge construction experience	corporate memory
Knowledge extension experience	research and development
Wisdom experience	professional ethics

# Seven Faces in the Community?

- IT for a purpose - buying, communicating
- sourcing information - individually, together
- problem solving
- getting organised
- getting informed
- innovating
- applying wisdom

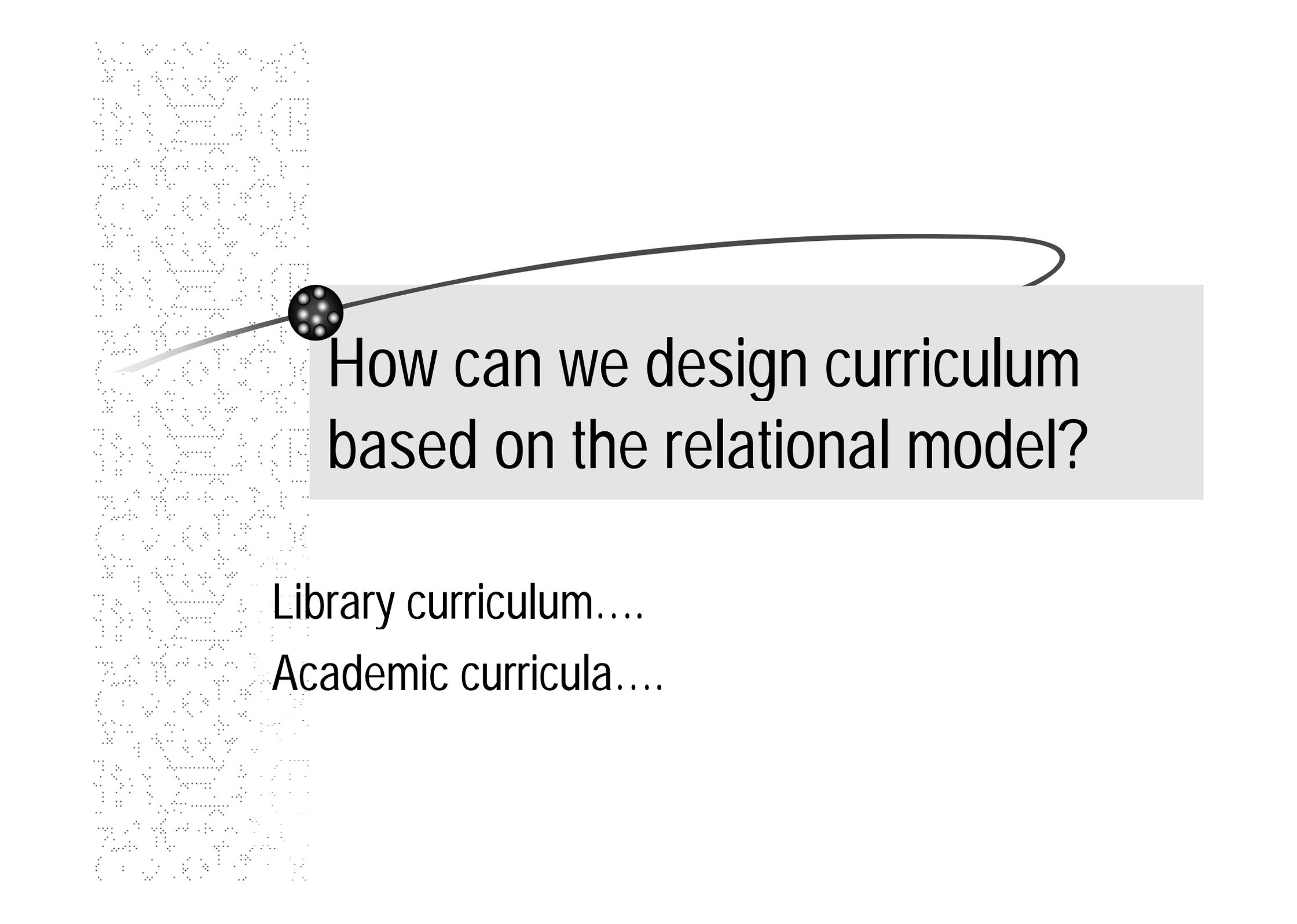




# Creative thinking space...

Questions....

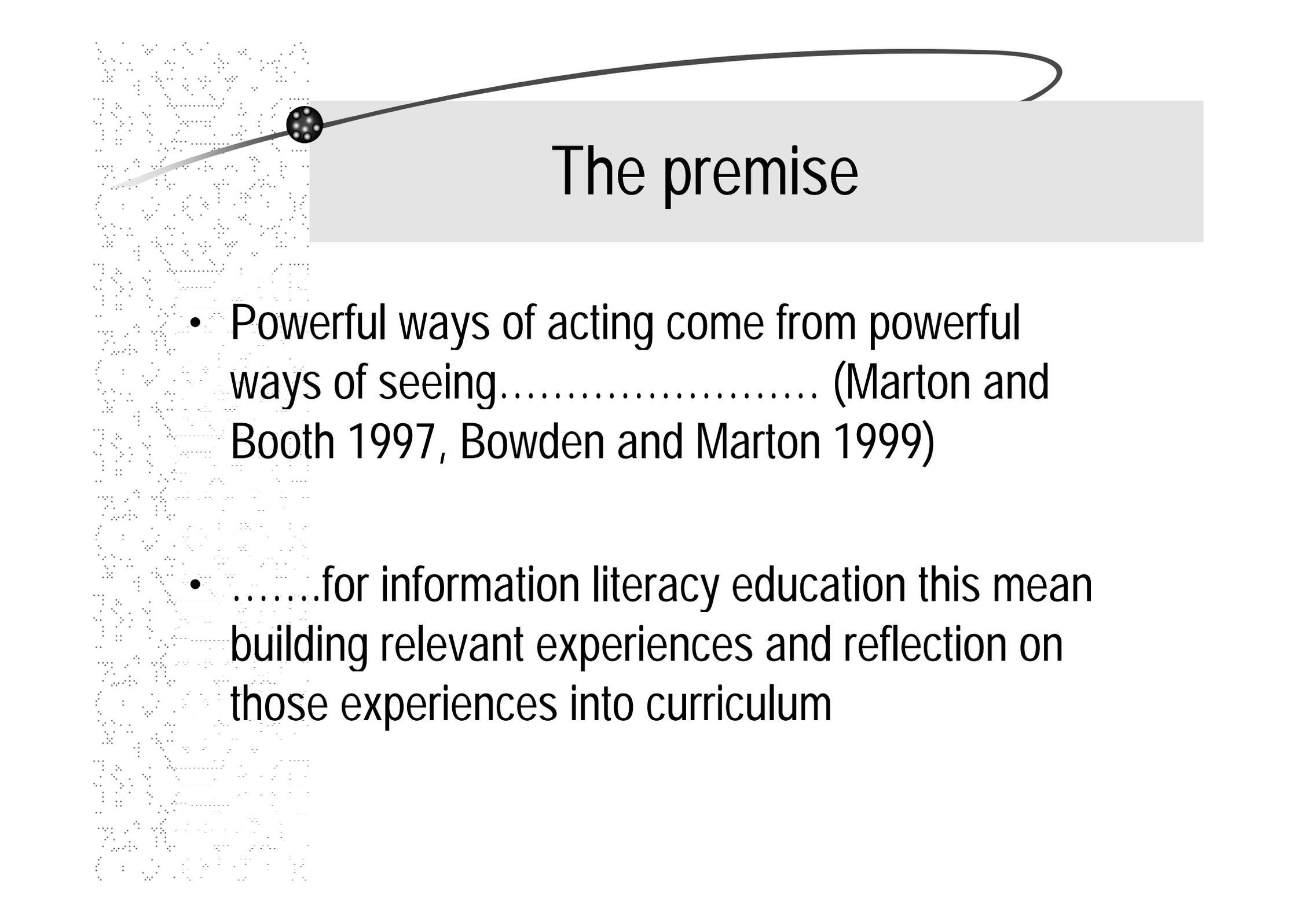
Reflections....



# How can we design curriculum based on the relational model?

Library curriculum....

Academic curricula....



# The premise

- Powerful ways of acting come from powerful ways of seeing..... (Marton and Booth 1997, Bowden and Marton 1999)
- .....for information literacy education this mean building relevant experiences and reflection on those experiences into curriculum



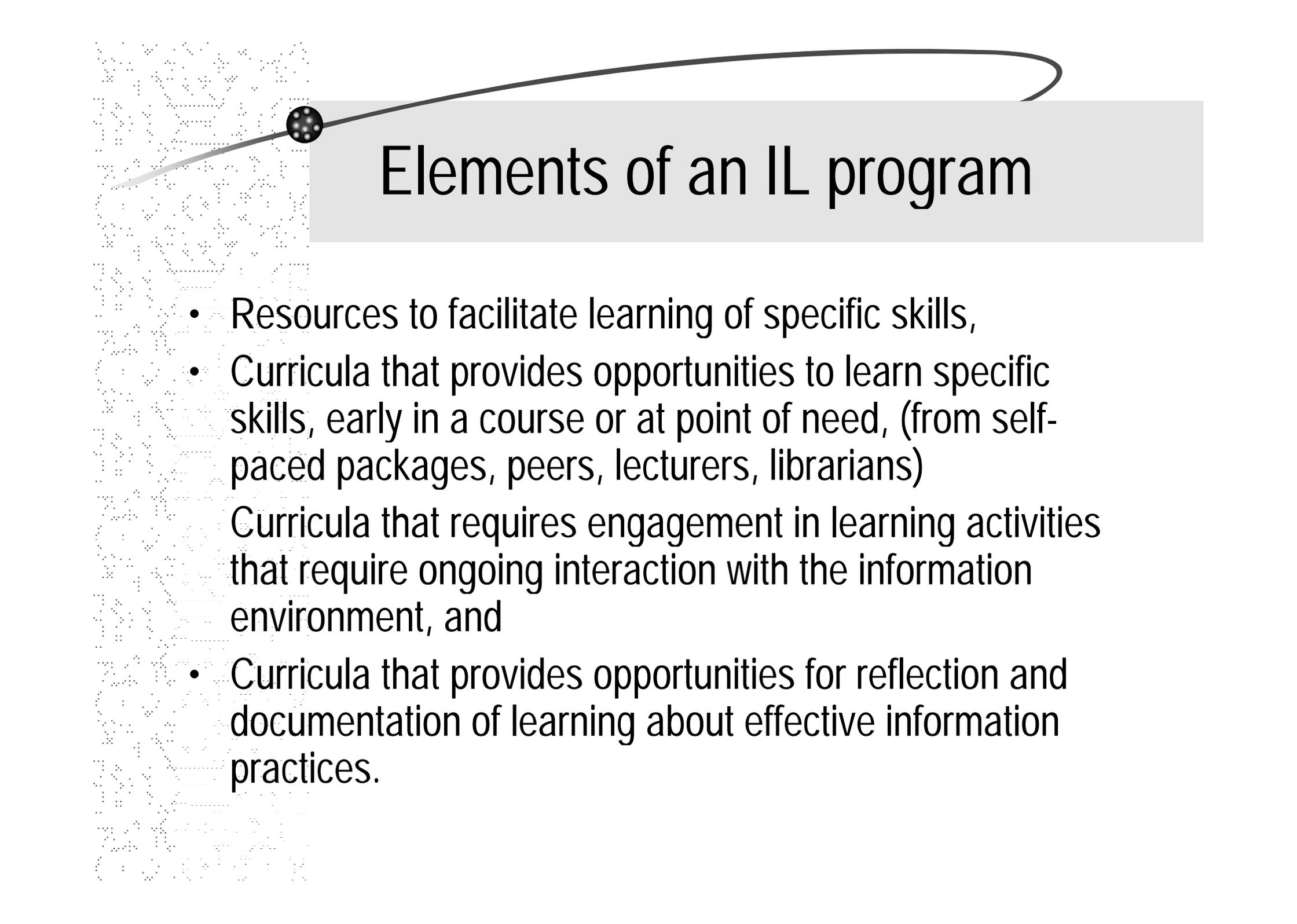
# Learning outcomes

- Students will
  - Conceive of information literacy in a variety of ways
  - Use info effectively in a range of contexts
  - Discern different ways of thinking about effective information use which apply to new problem
  - Conceive information as subjective and transformational in character
  - Appreciate the socially distributed nature of IL



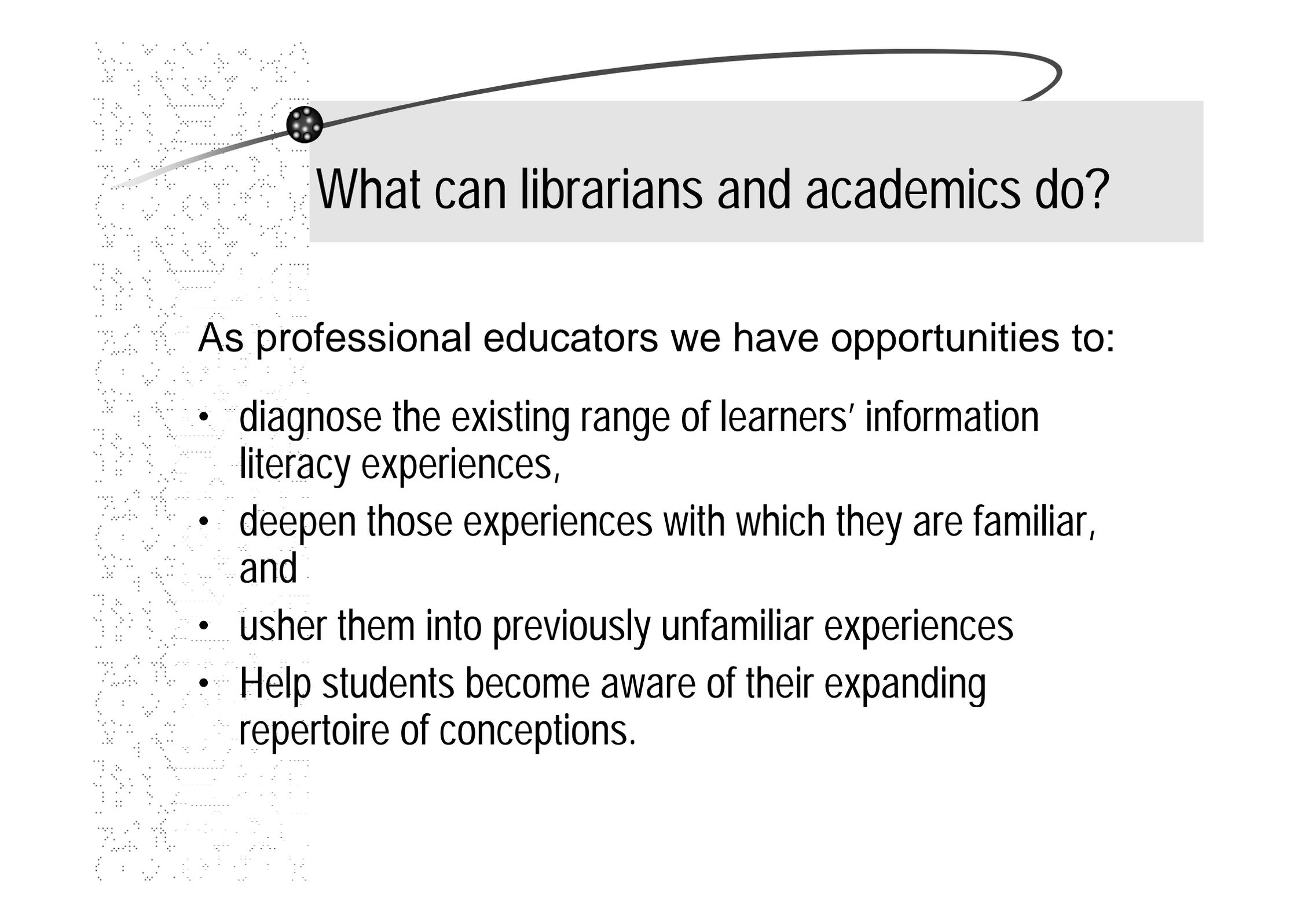
# Learning outcomes

- Students will
  - Use ITC's for information retrieval and communication
  - Find information independently or via an intermediary
  - Use information processes
  - Control information
  - Build a knowledge base in new interest areas
  - Work with knowledge in order to gain new insights
  - Use information wisely for the benefit of others



# Elements of an IL program

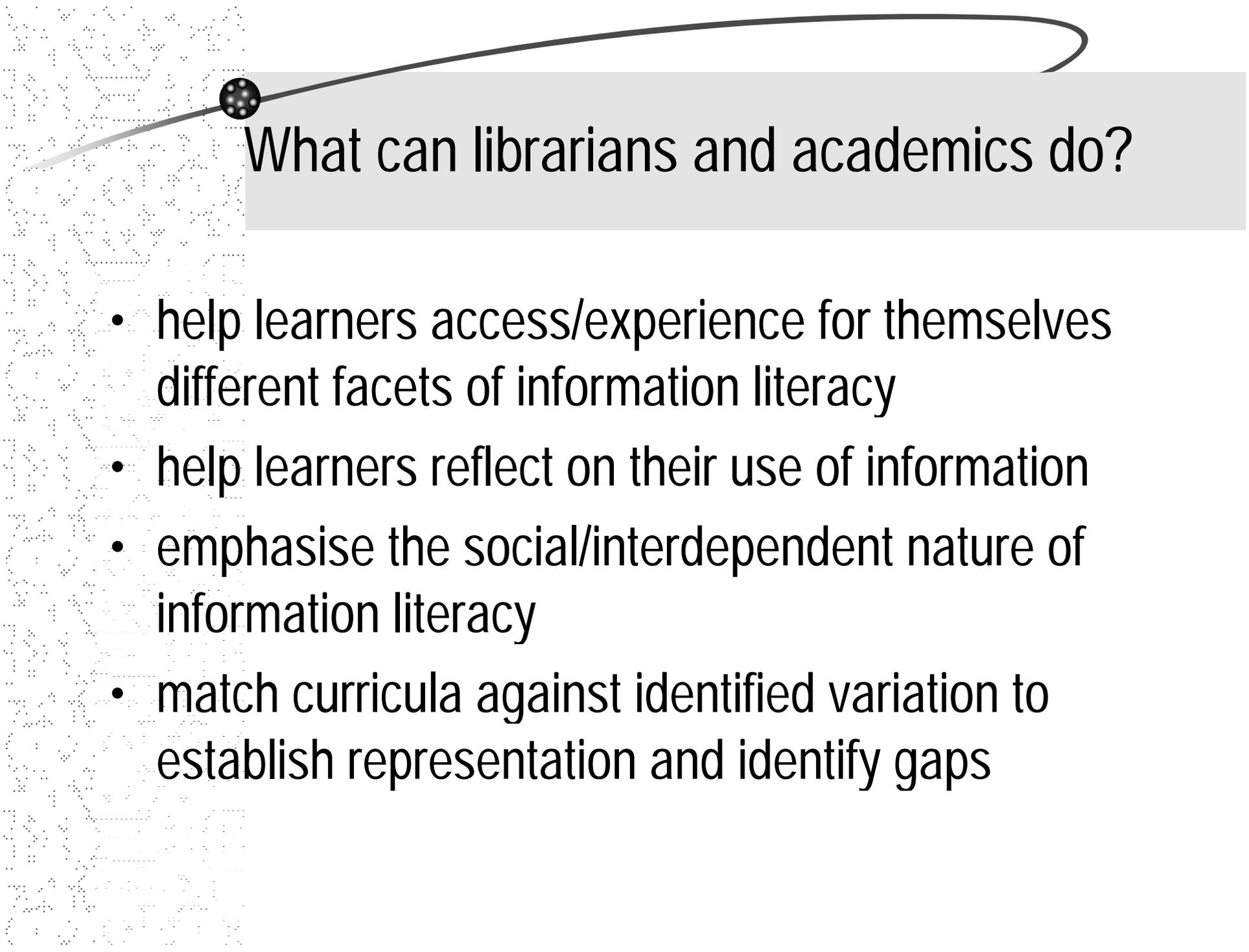
- Resources to facilitate learning of specific skills,
- Curricula that provides opportunities to learn specific skills, early in a course or at point of need, (from self-paced packages, peers, lecturers, librarians)  
Curricula that requires engagement in learning activities that require ongoing interaction with the information environment, and
- Curricula that provides opportunities for reflection and documentation of learning about effective information practices.



## What can librarians and academics do?

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
- Help students become aware of their expanding repertoire of conceptions.



## What can librarians and academics do?

- help learners access/experience for themselves different facets of information literacy
- help learners reflect on their use of information
- emphasise the social/interdependent nature of information literacy
- match curricula against identified variation to establish representation and identify gaps

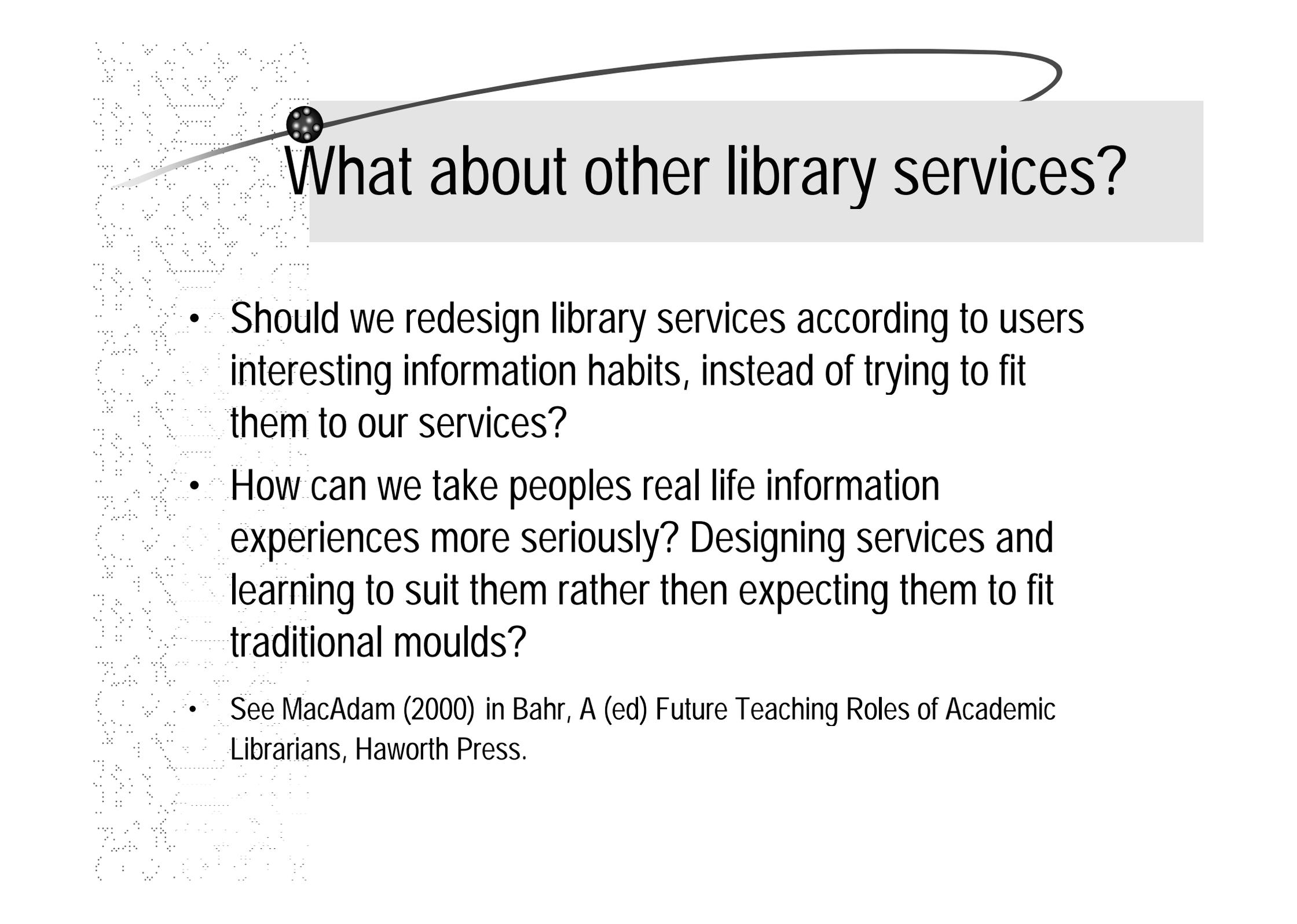


# IL and constructive alignment

- ...place emphasis on information literacy as forms of information practice that can be encouraged or discouraged by particular learning activities
- Bruce, C and Candy, P (2000) Information Literacy Around the World,

# 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 about other library services?

- Should we redesign library services according to users interesting information habits, instead of trying to fit them to our services?
- How can we take peoples real life information experiences more seriously? Designing services and learning to suit them rather than expecting them to fit traditional moulds?
- See MacAdam (2000) in Bahr, A (ed) Future Teaching Roles of Academic Librarians, Haworth Press.



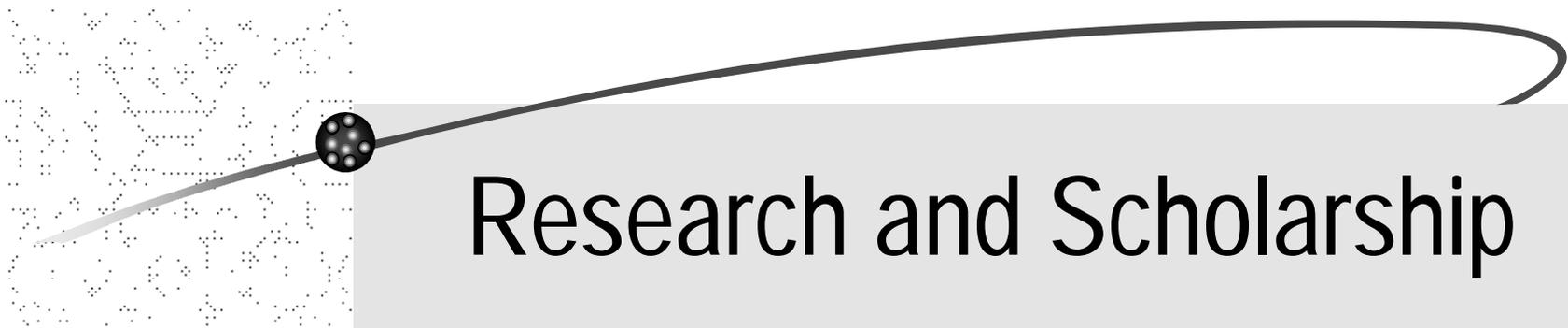
# Fostering Strategic Partnership

Dimensions from the Australian experience  
–from 'Faculty-Librarian partnerships in  
Australian Higher Education' (2001) RSR



# Policy

- Policy partnerships
  - Policy documents include information literacy frameworks and plans, lists of graduate attributes and teaching and learning plans
  - Librarians work with faculty to bring information needs of students into focus in construction of such policy
  - University of Ballarat IL policy is designed to converge with Boyer's Four scholarships



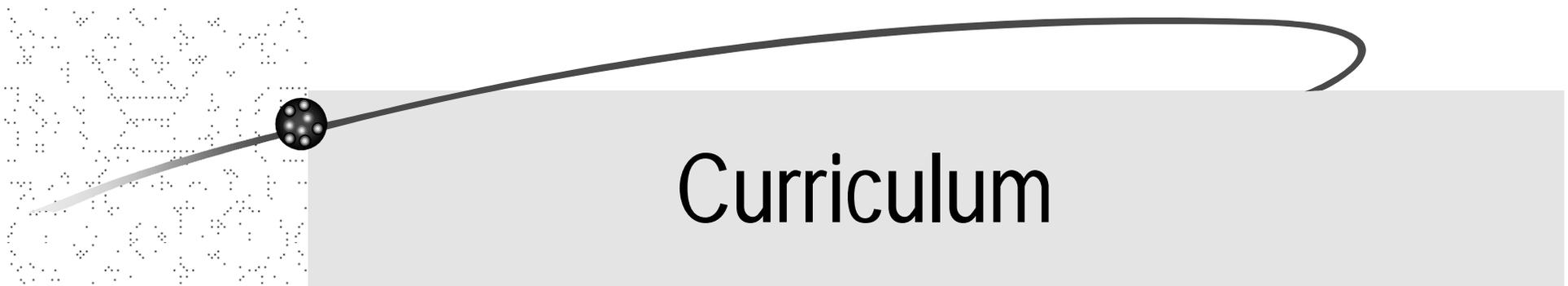
# Research and Scholarship

- Research and scholarship partnerships
  - Instances of faculty and librarians working together on elements of information literacy research
  - Or engaging in scholarship associated with design of discipline-based learning experiences
  - Evaluation is a popular focus
  - Teaching and learning grants create collaborative opportunities and contexts



# Higher Degree Supervision

- Higher degree supervision partnerships
  - academics and librarians share responsibility for helping students through the phases of higher degree research
  - Librarians act as co-supervisors
  - Benefits include more timely completion, higher quality research
  - Coursework opportunities for research students



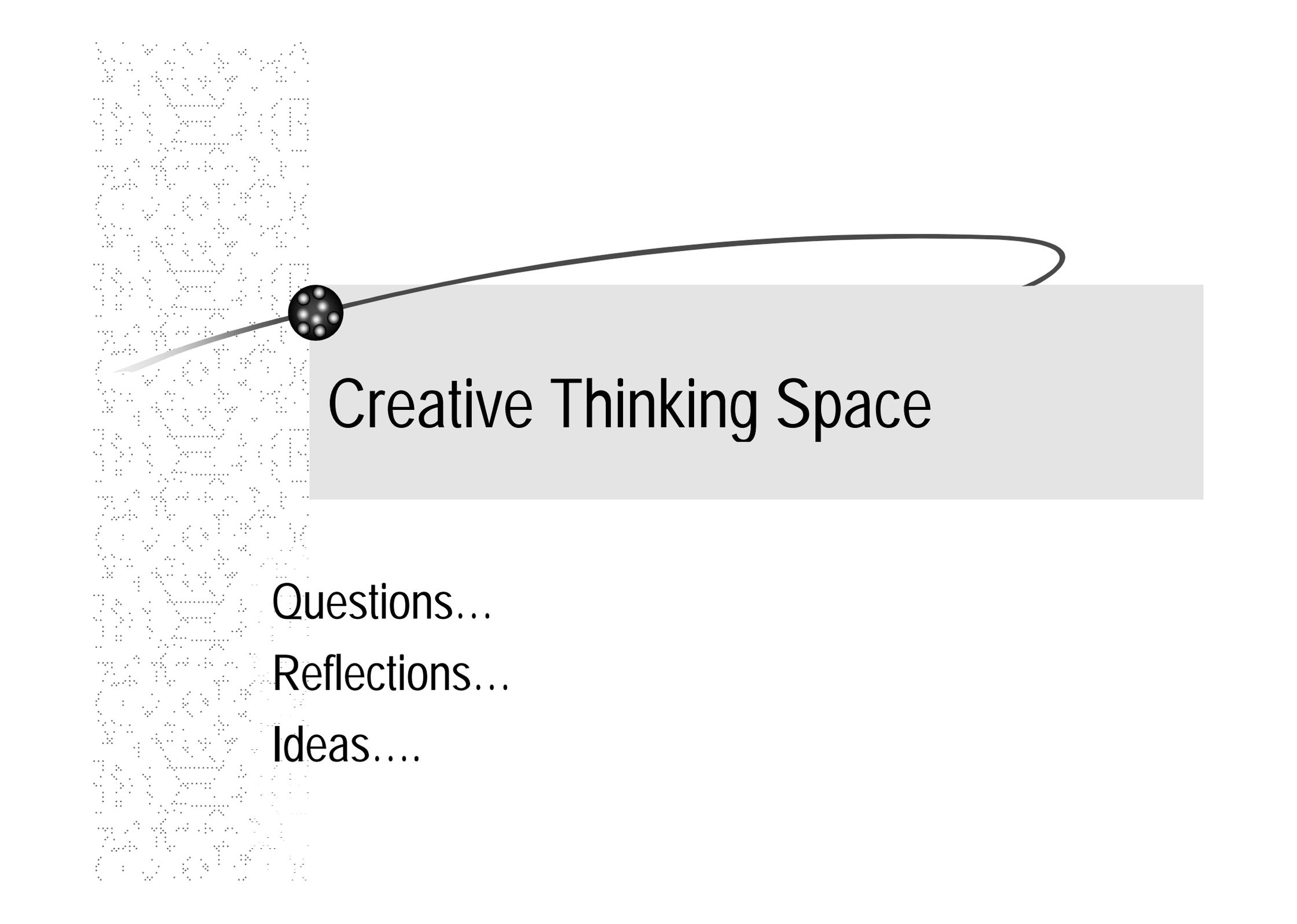
# Curriculum

- Curriculum partnerships
  - Interventions placed variously on a spectrum between special subject and curriculum redesign to foster more sophisticated information practices
  - Librarians involved in product development, including web-sites, IL modules
  - Griffith Graduate Project – self-managed portfolios
  - Australian Technological Network –sharing ideas



# Academic Development

- Academic Development Partnerships
  - Bring information needs of students to the attention of faculty
  - Promote the value of information literacy education
  - Include collaboration on learning initiatives or faculty development programs

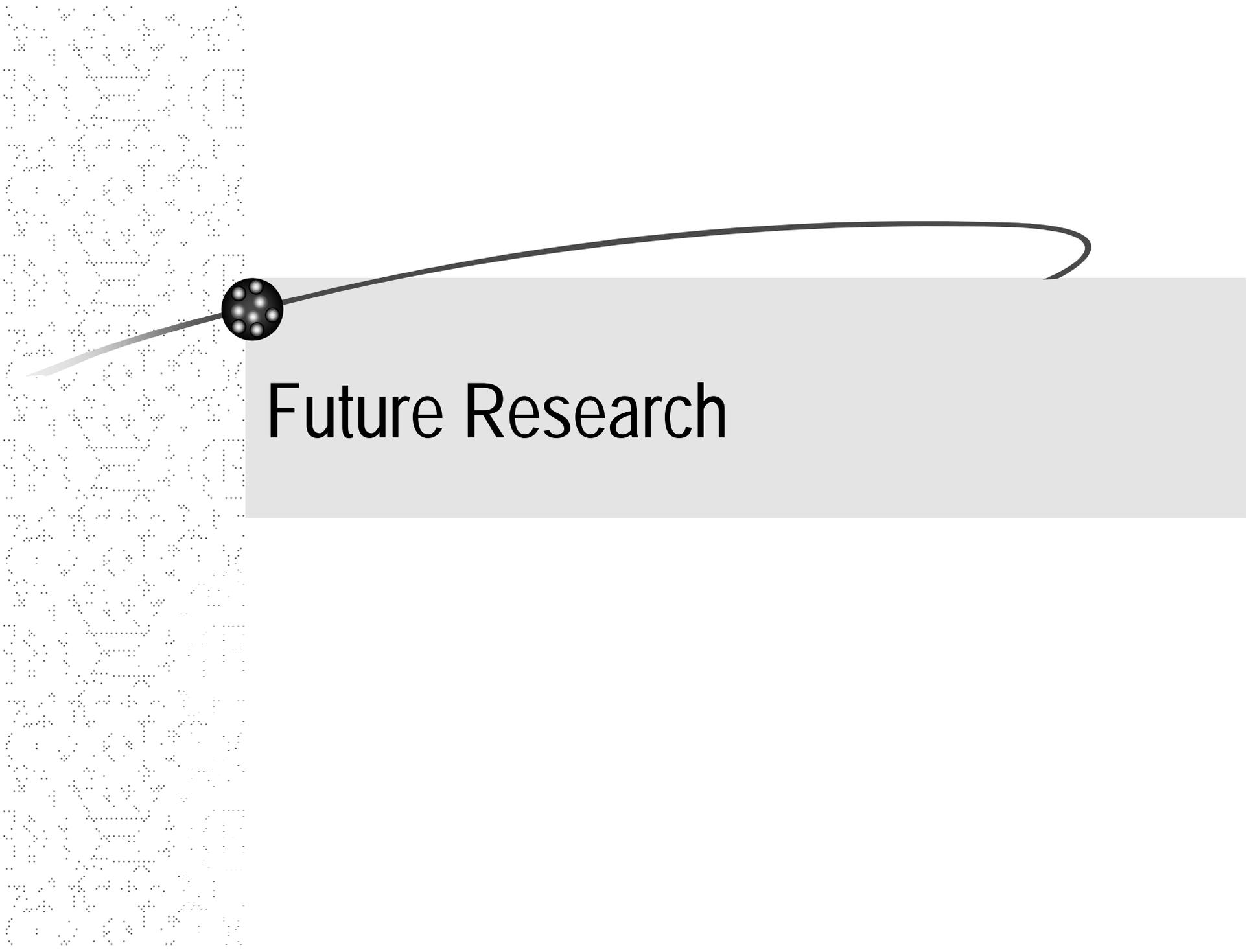


# Creative Thinking Space

Questions...

Reflections...

Ideas....

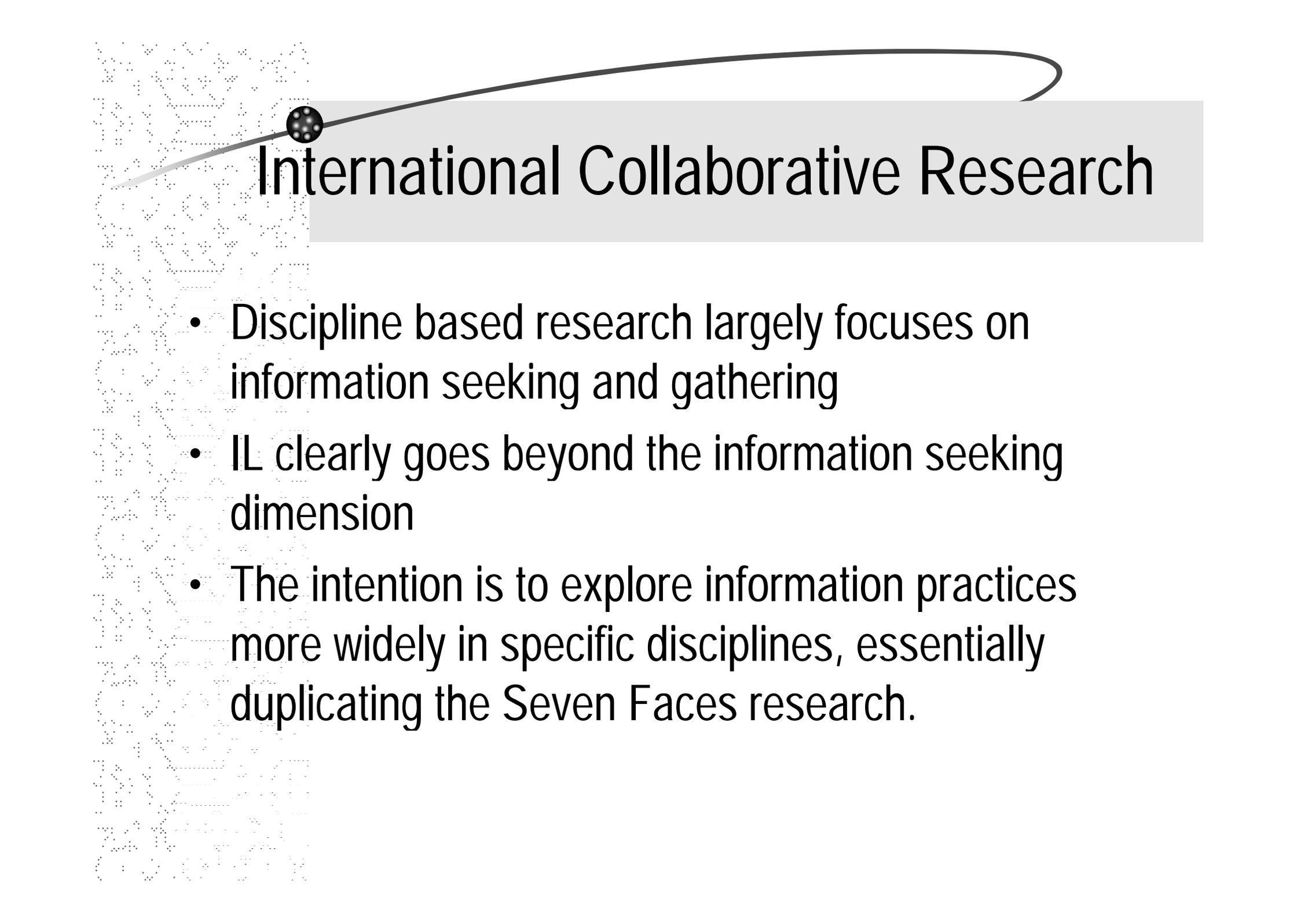
The image features a decorative background on the left side consisting of a vertical column of a grid of small dots. A curved line starts from the left edge of this grid, passes through a sphere with a grid pattern, and extends across the top of a light gray rectangular area. The text "Future Research" is centered within this gray area.

# Future Research



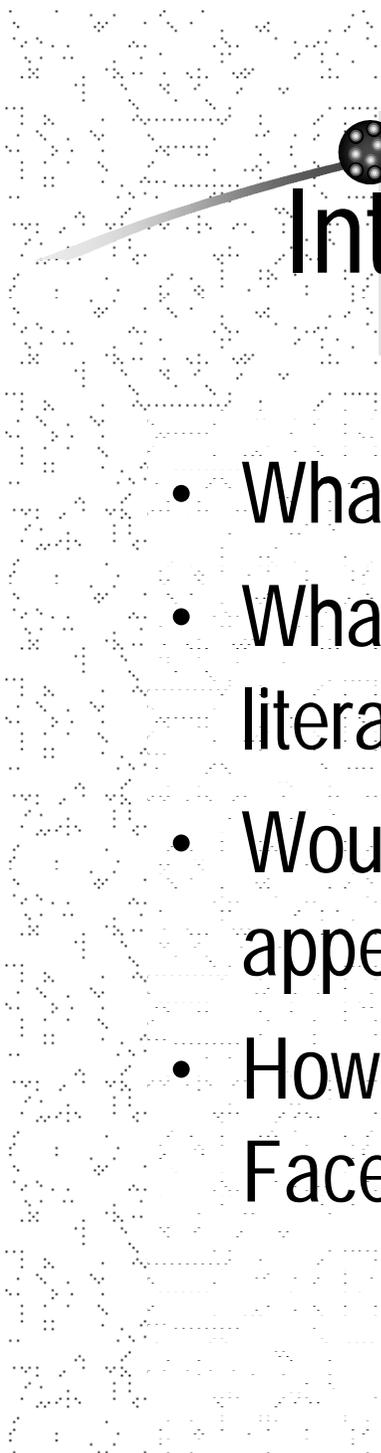
# International Collaborative Research

- Investigating experiences of information literacy in different disciplines
- Investigating IL in academic and professional contexts
- Vision - An international network of research projects, each funded in the home country
- Contact Christine Bruce for further information  
[c.bruce@qut.edu.au](mailto:c.bruce@qut.edu.au)



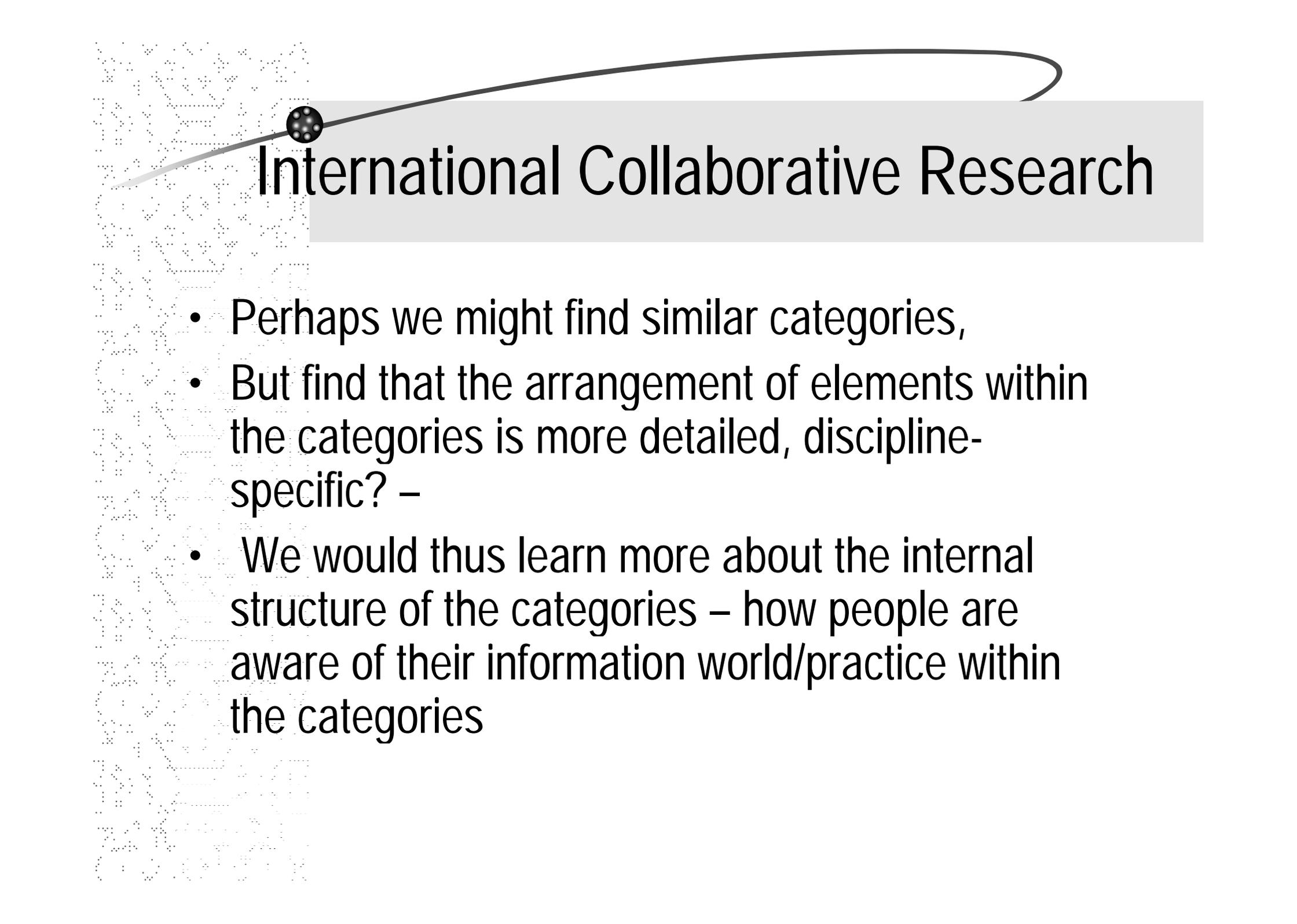
# International Collaborative Research

- Discipline based research largely focuses on information seeking and gathering
- IL clearly goes beyond the information seeking dimension
- The intention is to explore information practices more widely in specific disciplines, essentially duplicating the Seven Faces research.



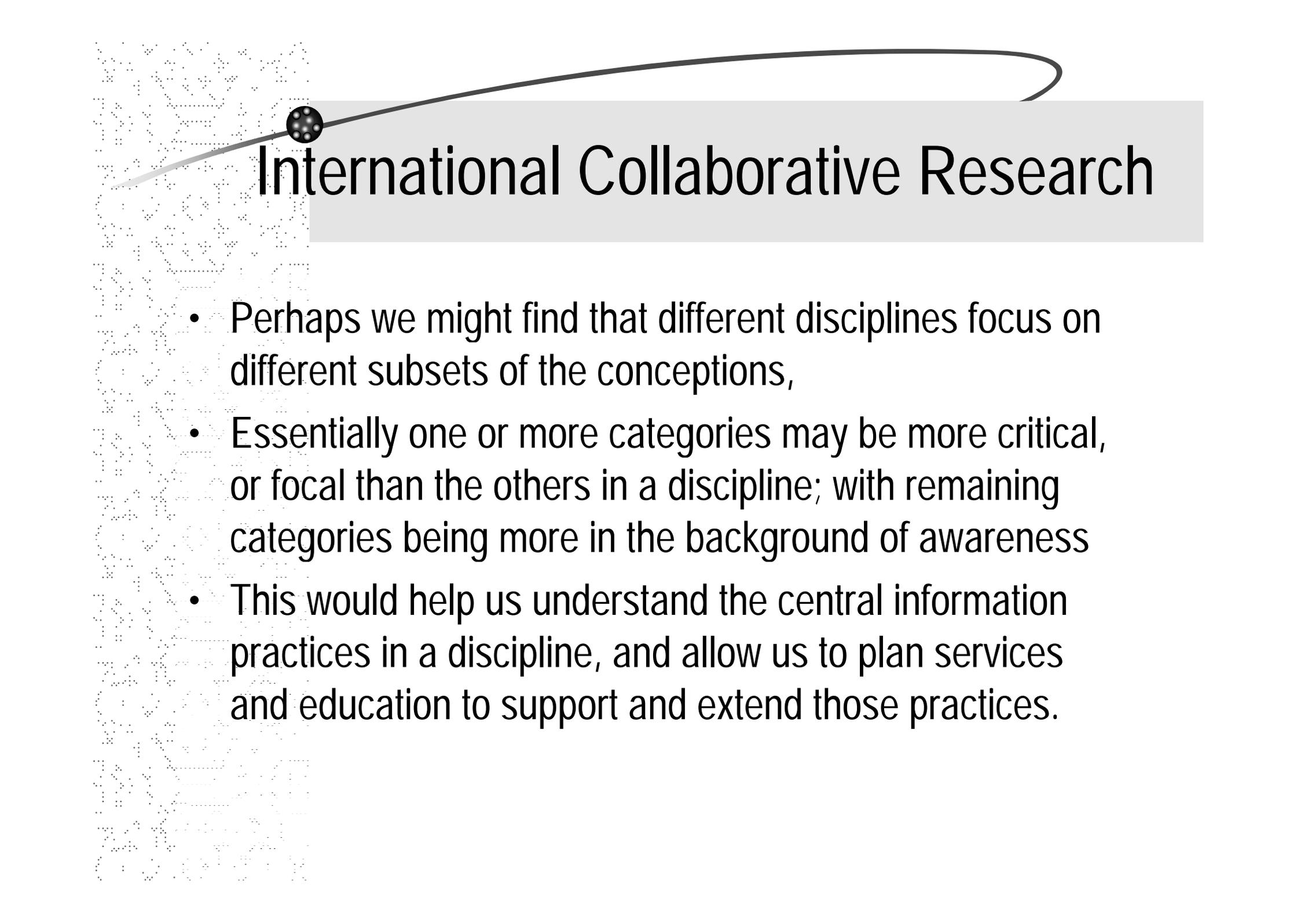
# International Collaborative Research

- What do we expect to find?
- What might different experiences of information literacy look like in different disciplines?
- Would we expect different conceptions to appear?
- How would the conceptions relate to the Seven Faces framework?



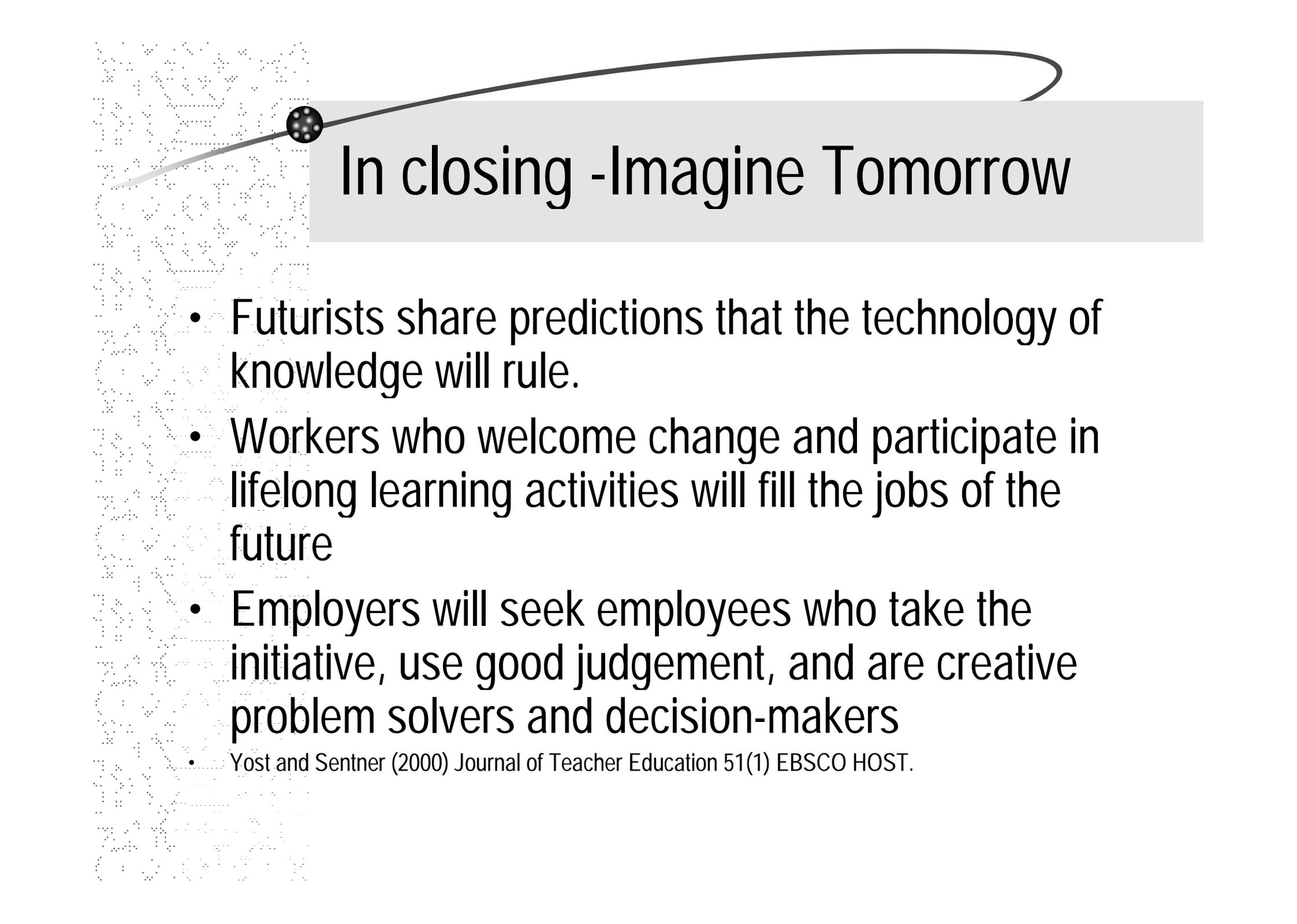
# International Collaborative Research

- Perhaps we might find similar categories,
- But find that the arrangement of elements within the categories is more detailed, discipline-specific? –
- We would thus learn more about the internal structure of the categories – how people are aware of their information world/practice within the categories



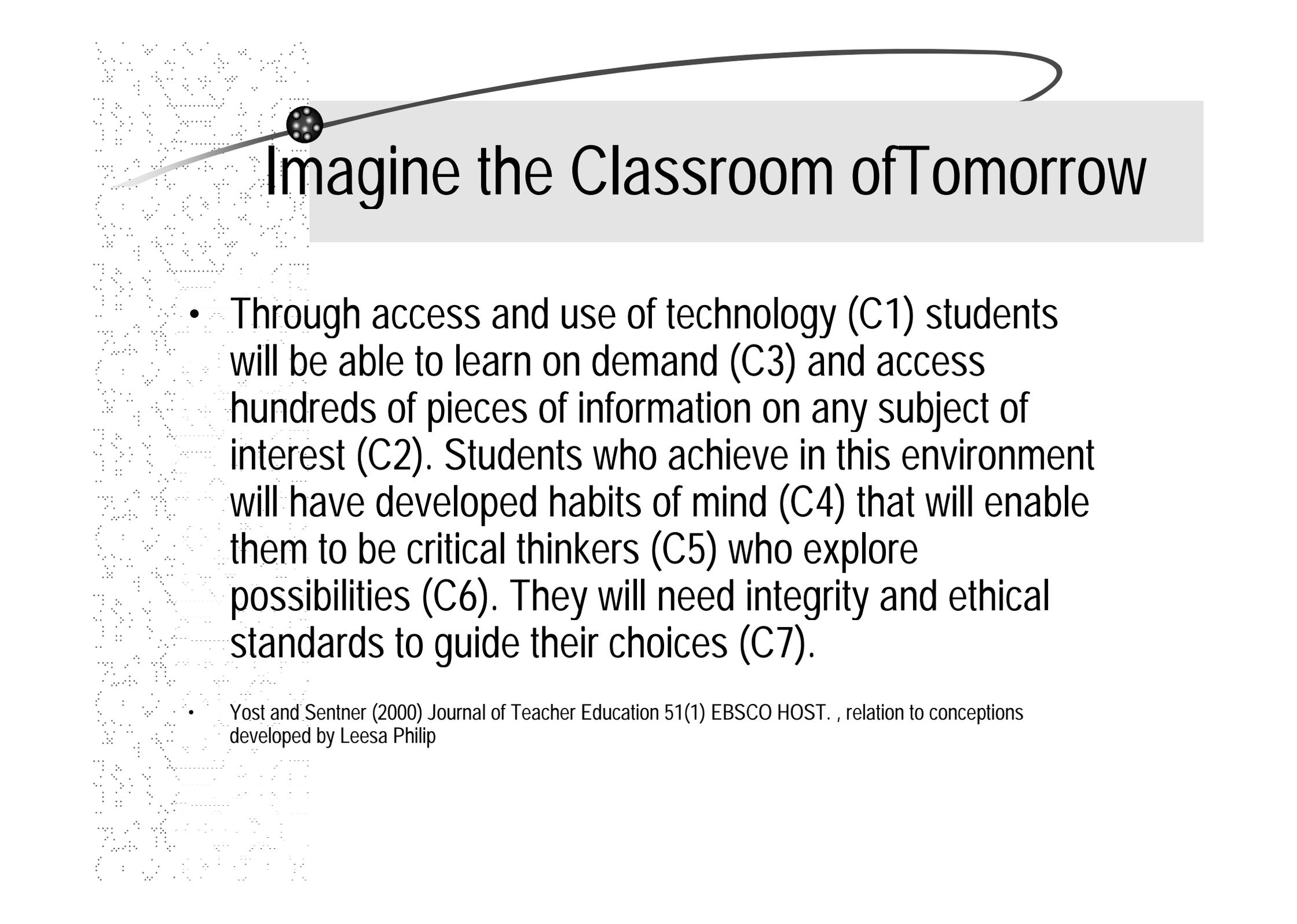
# International Collaborative Research

- Perhaps we might find that different disciplines focus on different subsets of the conceptions,
- Essentially one or more categories may be more critical, or focal than the others in a discipline; with remaining categories being more in the background of awareness
- This would help us understand the central information practices in a discipline, and allow us to plan services and education to support and extend those practices.



## In closing -Imagine Tomorrow

- Futurists share predictions that the technology of knowledge will rule.
- Workers who welcome change and participate in lifelong learning activities will fill the jobs of the future
- Employers will seek employees who take the initiative, use good judgement, and are creative problem solvers and decision-makers
- Yost and Sentner (2000) Journal of Teacher Education 51(1) EBSCO HOST.



# Imagine the Classroom of Tomorrow

- Through access and use of technology (C1) students will be able to learn on demand (C3) and access hundreds of pieces of information on any subject of interest (C2). Students who achieve in this environment will have developed habits of mind (C4) that will enable them to be critical thinkers (C5) who explore possibilities (C6). They will need integrity and ethical standards to guide their choices (C7).
- Yost and Sentner (2000) Journal of Teacher Education 51(1) EBSCO HOST. , relation to conceptions developed by Leesa Philip