

# Meaning: Playing with words or changing minds?

James Henri



THE UNIVERSITY OF HONG KONG



# Schools and knowledge

Schools are about knowledge.

But what sort of knowledge are they about?

# **data, information, knowledge**

**Knowing what these three things are and how you get from one to the other is essential to do knowledge work successfully.**

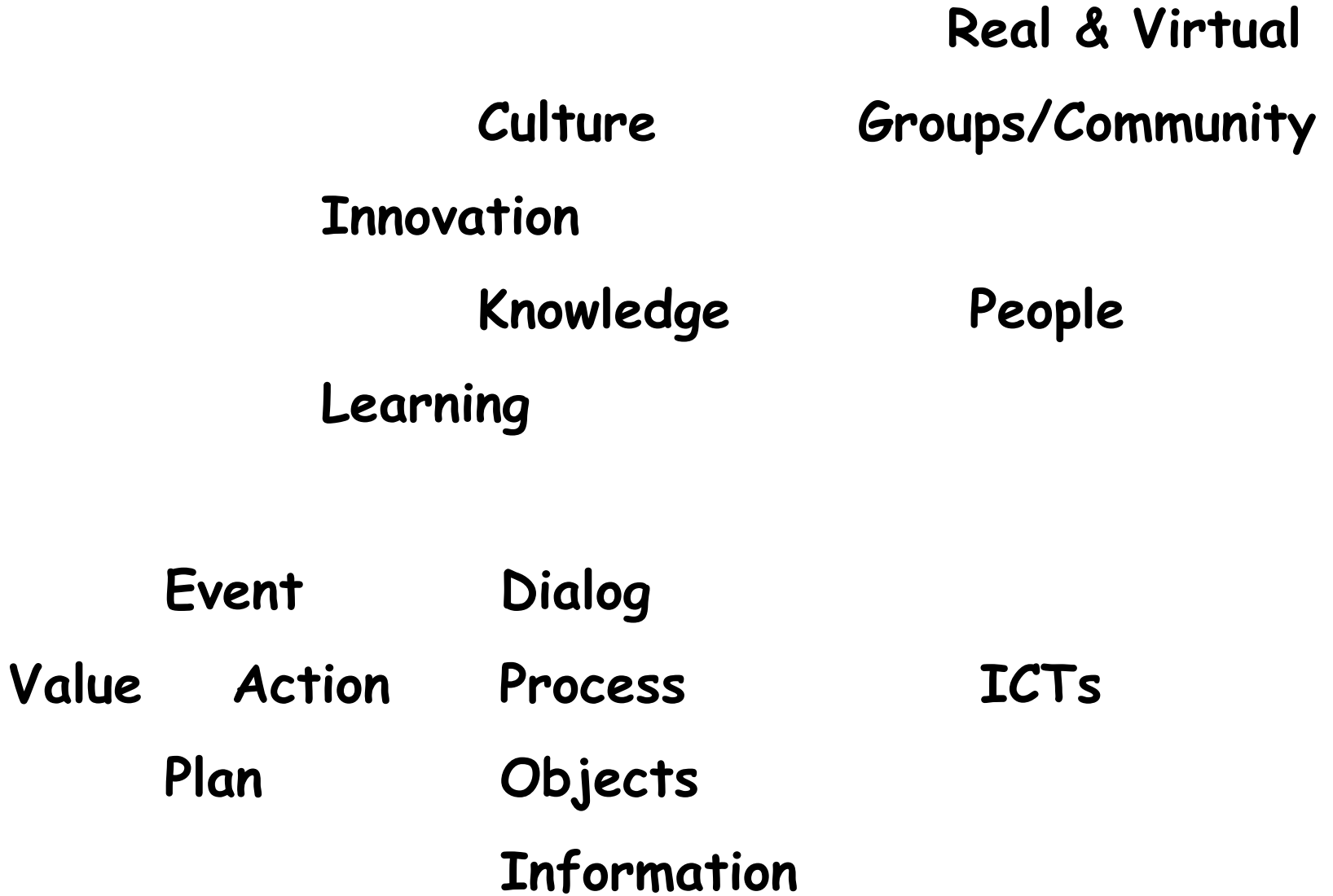
Davenport and Prusak, (1998)

# Understanding the knowledge world

We have lived through the information revolution and we are living in the knowledge society...or are we?

Are these just words?

Thinking & reflecting



# Dead or Alive

**Just as atoms can appear to be examined as a wave or as a particle, information can be seen as both process and product.**

# Is it dead or alive?

Information a student hasn't seen

Out of date information

Biased information

Inaccurate information

The best school library, computer lab

An old PC

# Consider the purpose

What does a school want from information?

Does the information match the purpose?

Does the receiver have the 'process set' needed for the purpose?



# Knowledge

Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information.

It originates and is applied in minds.

In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms.

Hanson, (2001)

# Types of Knowledge

**Explicit knowledge** is the knowledge that has been articulated in an artefact of some type outside a human being. **It is embedded.**

Artefacts come in a variety of forms, including documents, files, papers, conversations, pictures, thoughts, software, databases, emails, data sets, winks and nods, and whatever else can be used to represent meaning and understanding.

**Tacit knowledge** is the knowledge that exists within a human being. **It is embodied.**

Hanson, (2001)

# What is knowledge management (KM)?

*A group process which combines the human domain of knowledge (tacit and explicit)... with the object domain of information and data...for the purpose of creating value...*

Tom Sudman, 1999

## **(KM) is most frequently associated with two particular types of activities**

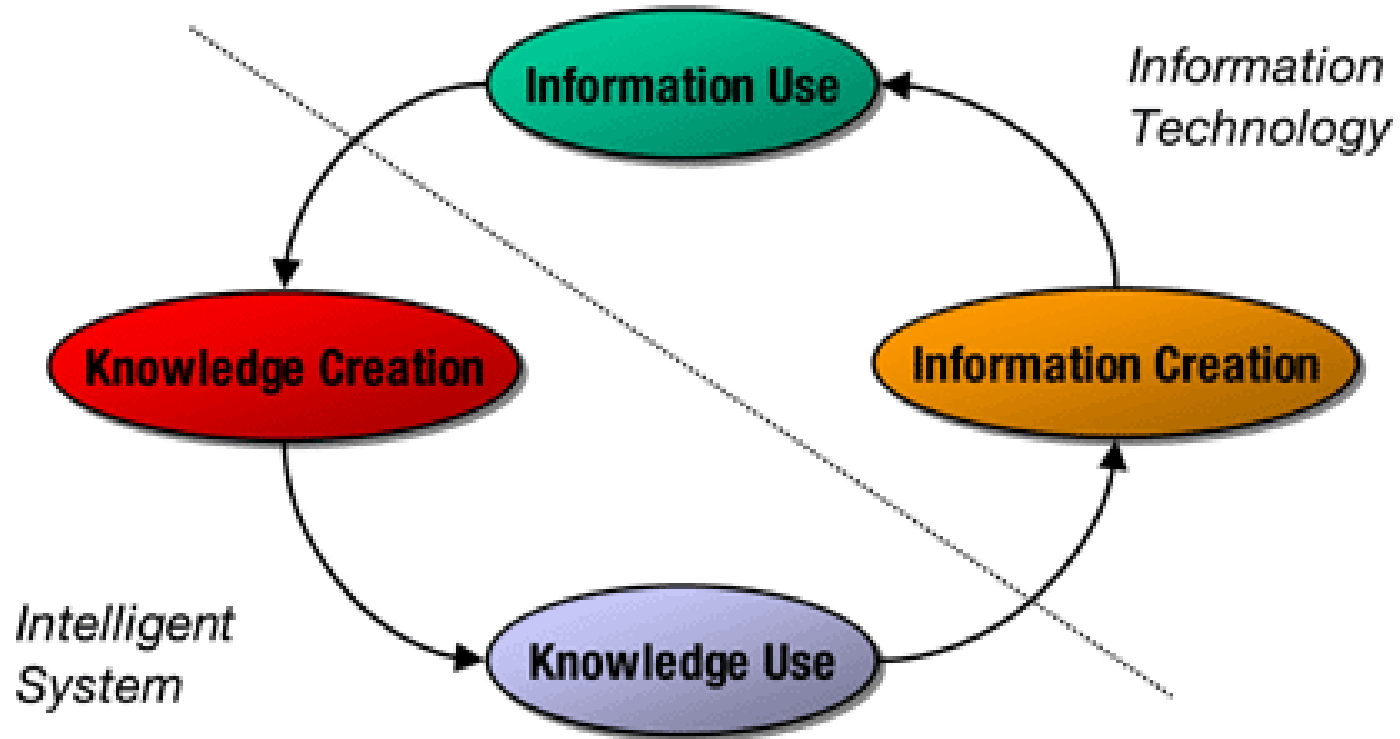
Activities that attempt to document and appropriate an individual's knowledge and activities to disseminate that knowledge throughout the organisation

Activities that facilitate human exchanges in which knowledge that is not codified (not explicit knowledge...do we call this information?) can be shared.

<b>Program</b>	<b>Focus of attention</b>	<b>Example outputs</b>
<b>Knowledge Management</b>	<p>Establishing and managing processes by which tacit knowledge can have a positive impact on organisational performance.</p> <p>Providing enabling technologies for the codification and sharing of corporate knowledge.</p>	<ul style="list-style-type: none"> <li>•Establishing communities of practice</li> <li>•Knowledge managers as part of project teams</li> <li>•Processes and tools for capturing and codifying knowledge of departing employees</li> <li>•Knowledge sharing tools and knowledge bases</li> </ul>
<b>Information Management</b>	<p>Management of the life-cycle of information: bringing information into the organisation, the creation of new information, the storage and retrieval of information, the development of new information products, the retention, archiving and disposal of information.</p> <p>Management of work processes related to the collection, creation, storage and retrieval and processing of information.</p>	<ul style="list-style-type: none"> <li>•Identifying information needs</li> <li>•Acquiring, filtering, synthesising information</li> <li>•Conventions for storing information, especially electronic information</li> <li>•Conventions for labeling information to ease processing</li> <li>•Data definition standards</li> </ul>

Vale, M. (1998) *Leveraging knowledge at the Public Service Commission of Canada: A Discussion Paper*.

# Knowledge - Information Cycle



The fundamental question for individuals and organisations is: what do we know'?

## The knowledge window

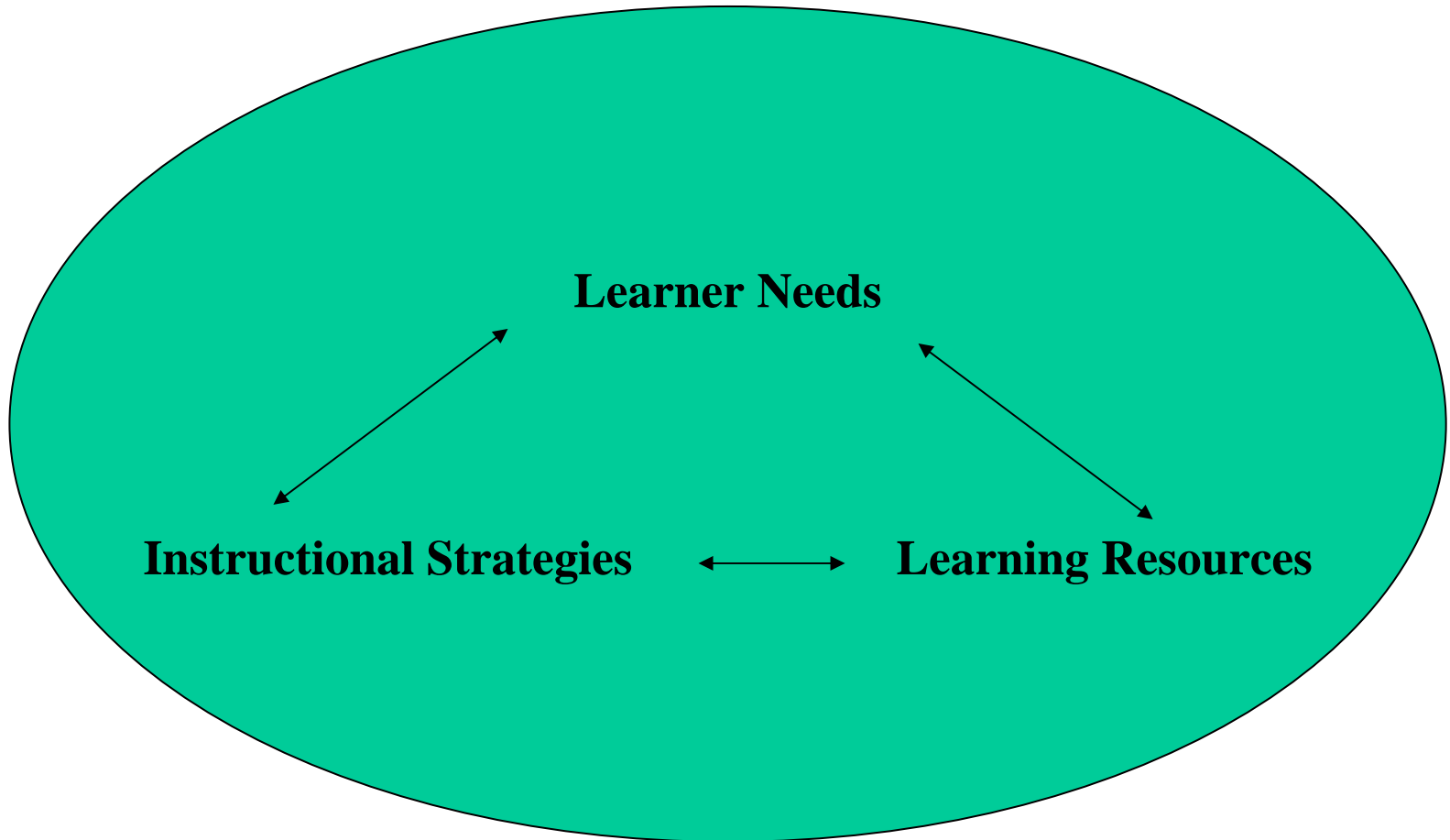
	<i>Know</i>	<i>Don't Know</i>
<i>Know</i>	Knowledge that you know you have	Knowledge that you know you don't have
	<i>Explicit knowledge</i>	<i>Knowledge gaps</i>
<i>Don't Know</i>	Knowledge that you don't know you have	Knowledge that you don't know you don't have
	<i>Tacit knowledge</i>	<i>Unknown gaps</i>

The implications for schooling?





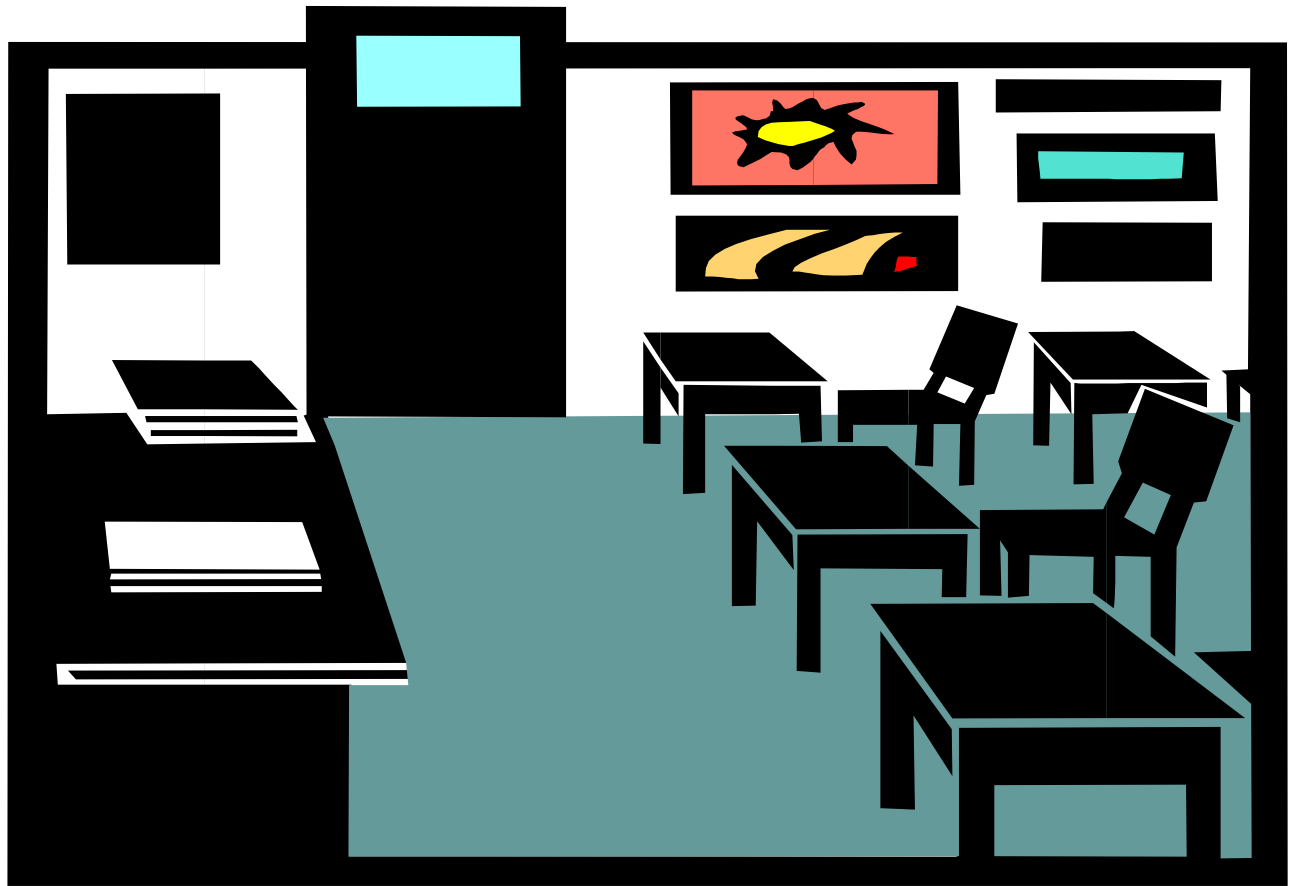
# Teaching (and learning)



# Scenario A: Limited information sources in traditional setting

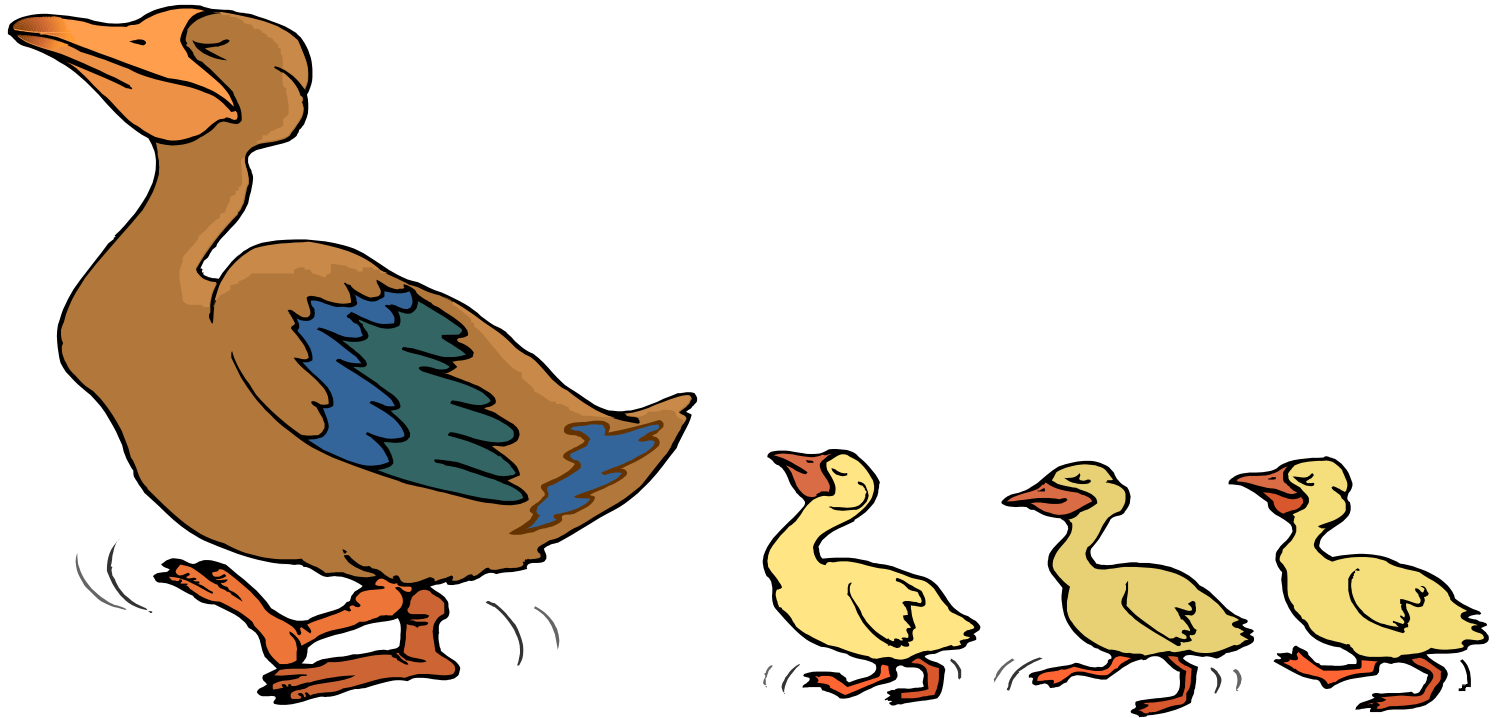


A regular teacher



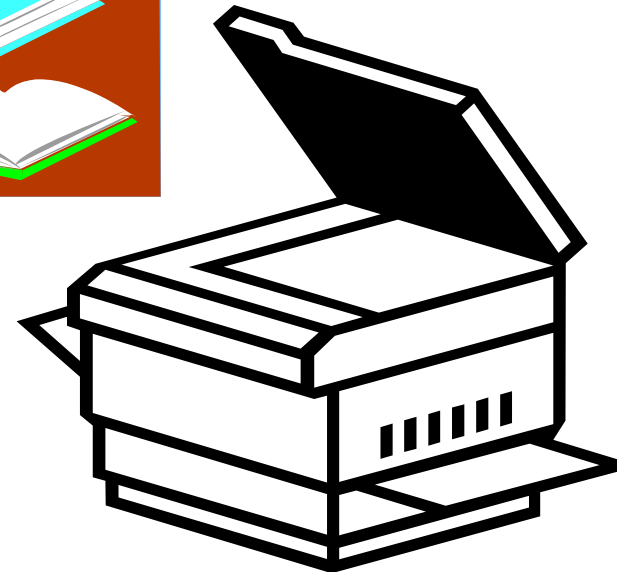
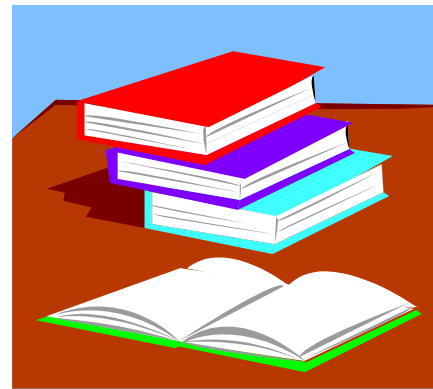
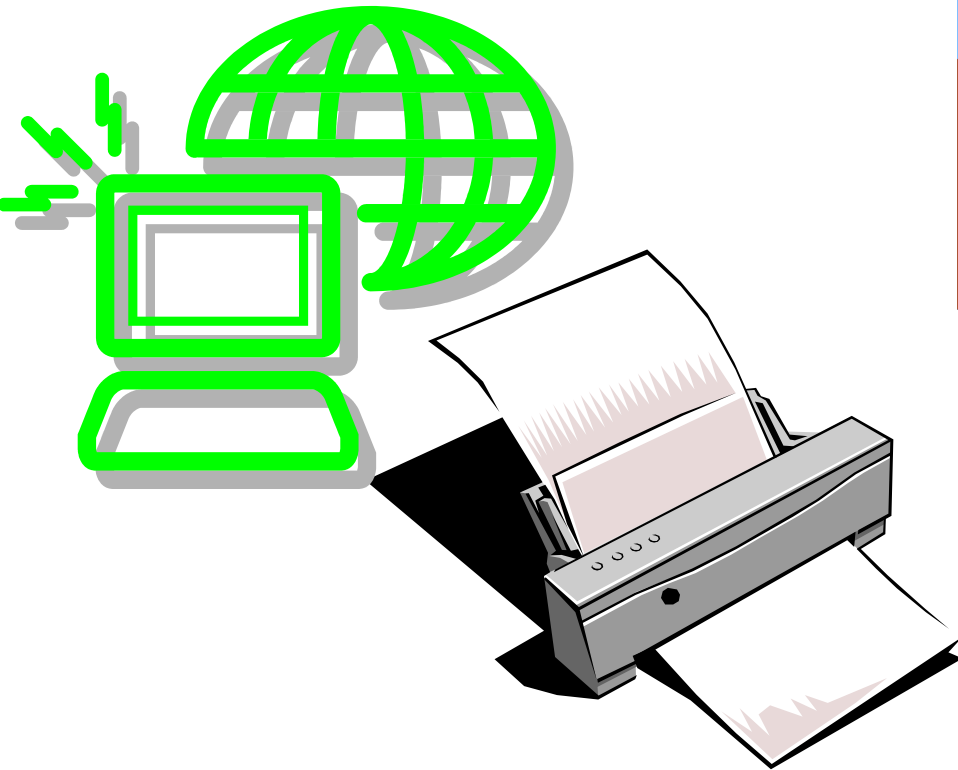
A regular classroom

# Leads almost inevitably to Duck Walking



## Knowledge by electronic osmosis:

If it 'moves' copy & paste it; if it  
doesn't, photocopy it.

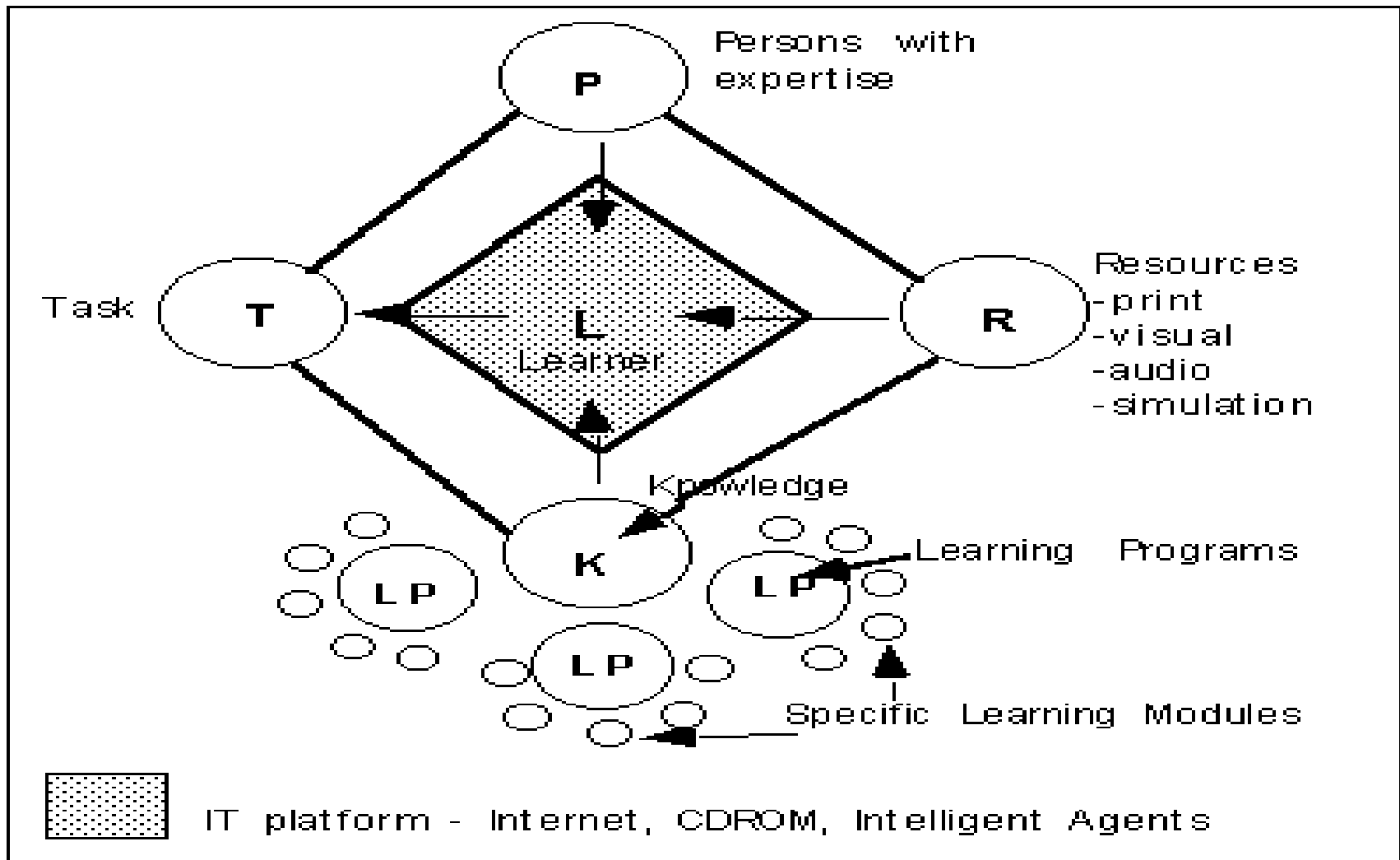


**We know it doesn't achieve  
what we want**

*"We must invent new ways of thinking to  
correct the problems created by old ways of  
thinking"*

*(Albert Einstein)*

## Scenario B: Multiple information sources in non-traditional setting





# The choice is

<b>Orientation</b>	<b>Process</b>	<b>Product</b>
<b>Strategy</b>	<b>Construct knowledge</b>	<b>Produce knowledge</b>
<b>Interaction</b>	<b>One on one</b>	<b>Group instruction</b>
<b>Instruction</b>	<b>Different for each individual</b>	<b>Same for everyone</b>
<b>Student Involvement</b>	<b>Active</b>	<b>Passive</b>
<b>End result</b>	<b>Construction</b>	<b>Reproduction</b>

McGregor, (1995)



# Information processing models

<b>Stages</b>	<b>Task Initiation</b>	<b>Topic Selection</b>	<b>Pre-focus Exploration</b>	<b>Focus Formulation</b>	<b>Information Collection</b>	<b>Search Closure</b>	<b>Construct &amp; Present</b>
<b>Feelings</b>	Uncertainty	Optimism	Confusion Frustration Doubt	Clarity	Sense of direction Confidence	Relief	Satisfaction/ Dissatisfaction
<b>Thoughts</b>	<b>Ambiguity</b>  <b>Specificity</b>						
	<b>Increased interest</b> 						
<b>Actions</b>	<b>Seeking relevant information</b>				<b>Seeking pertinent information</b>		

After Kuhlthau, (1993)

## Stage 3 – Pre-focus Exploration

<b>Task</b>	<b>Thoughts</b>	<b>Feelings</b>	<b>Actions</b>	<b>Strategies</b>
<b>To investigate information with the intent of finding a focus</b>	<b>Become informed about general topic. Seek focus in information on topic. Identify several possible foci. Inability to express precise information needed</b>	<b>Confusion Doubt Sometimes threat. Uncertainty</b>	<b>Locate relevant information Read to be informed. Take notes on facts and ideas. Make citations</b>	<b>Read to learn about topic. Tolerate inconsistency and incompatibility of information encountered. Intentionally seek possible foci. List descriptors</b>

Kuhlthau, (1993)

## Stage 5 -- Information Collection

<b>Task</b>	<b>Thoughts</b>	<b>Feelings</b>	<b>Actions</b>	<b>Strategies</b>
<p>To gather info that defines, extends and supports the focus</p>	<p>Seeking information to support focus.            Defining and extending focus through information.            Gathering pertinent information.            Organizing information in notes</p>	<p>Realization of extensive work to be done.            Confidence in ability to complete task.            Increased interest</p>	<p>Collect pertinent information.            Request specific sources            Taking detailed notes with bibliographic citations</p>	<p>Use descriptors to search out pertinent information.            Make comprehensive search of various types of materials, i.e., reference, periodicals, nonfiction, and biography            Use indexes</p>

# Construction tools

**Back to Bloom:**

Comprehension

Application

Analysis

Synthesis

Evaluation

**Add:** qualitative tools-thinking logs, drafts, diaries, collaborative tools...

# Schools and knowledge

School is all about providing the best learning opportunities for students to make the most of their lives as sense-making, constructive, independent people

We want students (and teachers) to know how to be active agents in a rich information space

After Todd, (2000)

# Knowledge construction

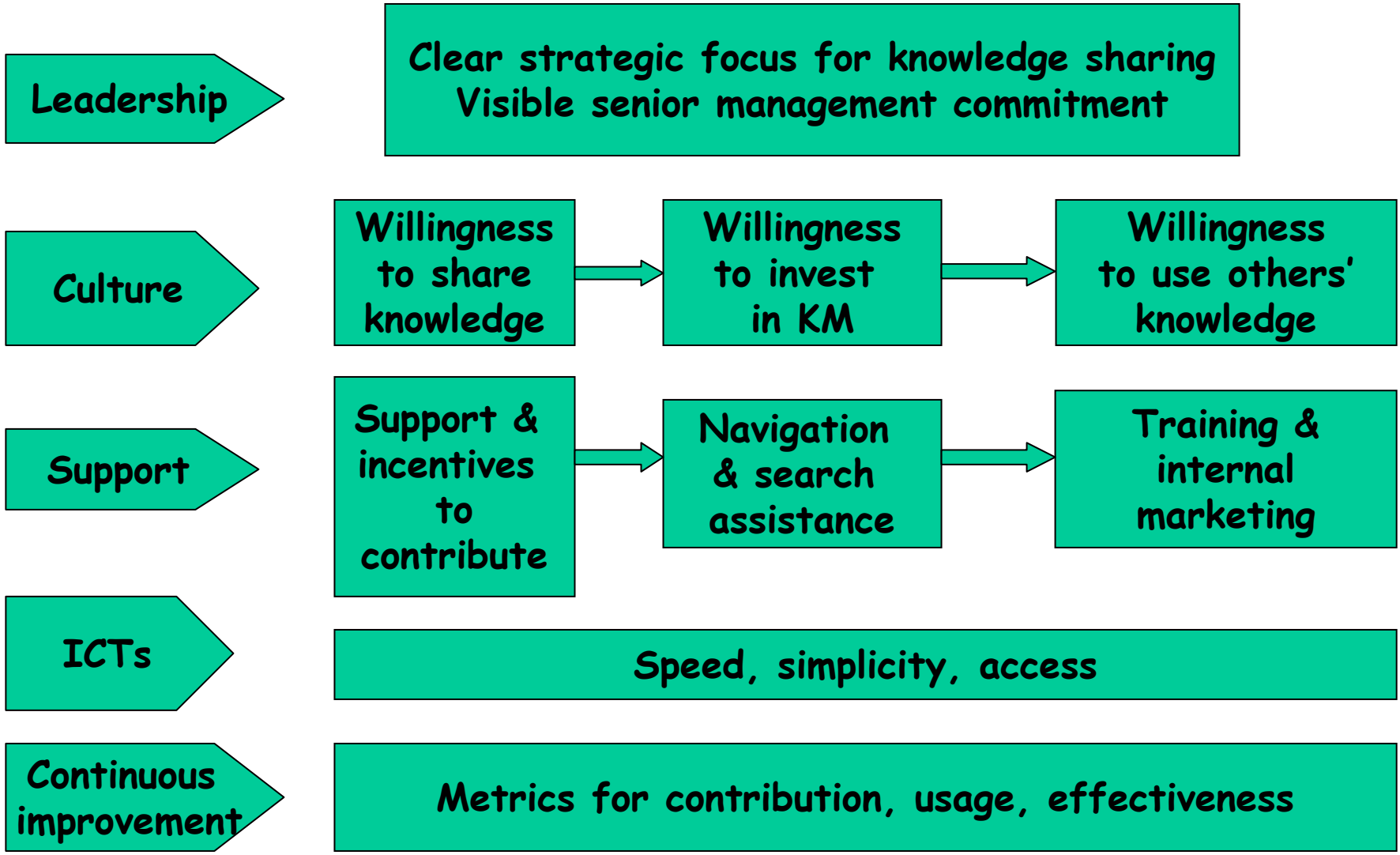
**Turning information into knowledge is the most intellectually challenging, time-consuming, and potentially controversial process.**

**Knowledge is created and expanded through social interaction between tacit knowledge and explicit knowledge.**

Nonaka and Takeuchi

# KC not KM

Likewise Esko Kilpi (1999) suggests that the heart of the KM movement is actually a function of the flow of meaning. The challenge then is to connect people in meaningful ways and enhance their capacity to transform information into invention and initiative.



Trussler, S. (1998). Building blocks for successful knowledge management



# Teachers and KM

## Fullan's Black Box of Collaboration

- Assessment of learning
- Professional learning community
- Pedagogical practice

# Teachers and KM

## Henri's Information Literate School

- ⌘ Messiness with trust
- ⌘ Planning for collegiality
- ⌘ Selective innovation
- ⌘ Networking and boundary crossing
- ⌘ Time for questions and reflective practice
- ⌘ Controlled anxiety

# Schools (principals) and KM

- ⌘ Develop an information policy
- ⌘ Create flexibility
- ⌘ Target changing minds not 'reproduction'
- ⌘ Prioritize collegiality and information literacy among teachers
- ⌘ Teach themes not subjects
- ⌘ Reward teachers who are good learners

*"Don't believe what your eyes are telling you, all they show is limitation. Believe with your understanding, find out what you already know, and you'll see the way to fly. "*

*-- Richard Bach, author of Jonathan Livingston Seagull*