

# Curriculum-integrated active learning in information sciences and the role of the information specialist

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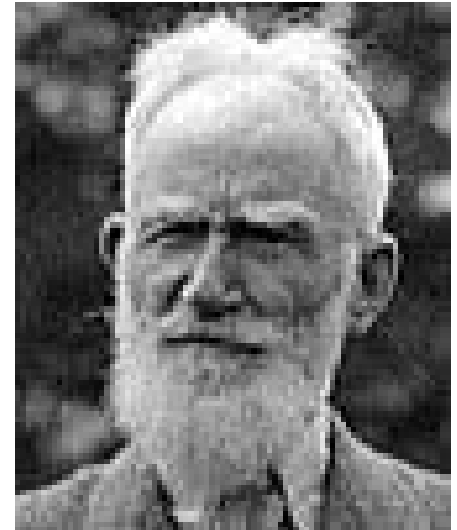
# Library, learning and curriculum

**Koç University, Sarıyer, Istanbul, Turkey**  
Rumeli Feneri Mh., 34450 Istanbul  
Province/Istanbul, Turkije

"Harry potter's school"

# Koç University, quotes in Hall

George Bernard Shaw



"All great truths begin  
as blasphemies."

Don't be afraid to think out of the box  
Truth is always contextual

# 2002 -2011

Ghent University  
Medical Faculty

From print library to virtual learning environment

The faculty decided to teach « **medical information** »,  
with focus on information resources and content  
and not on software and hardware (informatics)

# Teach « medical information sciences » in higher education ?????

## QUESTIONS:

- What, when, where, why, by whom, to whom and how
- « academic » literacy ? Does such a thing exist ?
- Has the « library » a role in this education ?

# Too many questions for one talk



Invite You to roundtable tonight just before gala dinner in the library.

21 persons are eligible to experience active learning on curriculum and information learning/teaching.



We will take some of these questions into the 2012 meeting

# LITERACY

Core definition: the competences to read and write

Expanded definition: AND ABLE TO ***UNDERSTAND the content***

many submeanings: a lot of « adjectives » multiplying after ICT-period:

## **Literacy + ICT:**

Digital literacy, first in(ti) 1970 and 1987

Computer literacy, first in(ti) 1974

(digital) **Information literacy , first in (ti) 1983, NOW MOST USED**

**BUT ..... Almost entirely in library and information literature**

Library literacy, seldom used, first in(ti) 1979

Internet literacy, very rarely, first in(ti) 1991

Media literacy , first in(ti) 1971

Network literacy, very rarely, first in(ti) 1984

New literacies (group name), first (book) 1991

« Academic (medical) literacy » as  
« my » final goal ?

The competences linked to literacy within  
higher and continuous education (role of  
information in learning processes)



# Literacy in pubmed ?

literacy - MeSH result - Windows Internet Explorer

http://www.ncbi.nlm.nih.gov/mesh?term=literacy

File Edit View Favorites Tools Help

Search: MeSH

literacy Search Clear

Display Settings:  Summary Send to:

**Results: 5**

- [Information Literacy](#)
  1. The ability to recognize when information is needed and to locate, evaluate, and use the needed information effectively.  
Year introduced: 2011
- [Computer Literacy](#)
  2. Familiarity and comfort in using computers efficiently.  
Year introduced: 1987
- [Health Literacy](#)
  3. Degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.  
Year introduced: 2010

PubMed search builder

Add to search builder AND

Search PubMed

Find related data

Database: Select

Find items

Internet 100%

start literacy - MeSH result... http://192.168.1.1:8... Microsoft PowerPoint ... 9:

Pubmed free text search on « academic literacy »

- NOTHING

# « academic literacy in LISA »

Selected items - Library and Information Science Abstracts (LISA) - ProQuest - Windows Internet Explorer

http://search.proquest.com/lisa/selecteditems?accountid=11077

File Edit View Favorites Tools Help


★ Favorites | [booking.com hotel Condesa ...](#) | [BudgetAir.nl - boek gemak...](#) | Suggested Sites | Free Hotmail | Web Slice Gallery


Homepage — Universi... | FOR VISITORS | Koç U... | "academic literacy" - G... | Selected items - Li... x

## Selected items

2 selected items: [Save to My Research](#) [Delete](#)

Check all on page [Email](#) [Print](#) [Cite](#) [Export](#) [Save as file](#)

1  [Library design, learning spaces and academic literacy](#) [Preview](#)  
Beard, Jill; Dale, Penny. New Library World 111. 11-12 (2010): 480-492. [Duplicate]  
References (28)  
[Citation/Abstract](#) [S.F.X](#)  
[Save to My Research](#) [Delete](#)

2  [Redesigning Services for the Net-Gen and beyond: A Holistic Review of Pedagogy, Resource, and Learning Space](#) [Preview](#)  
Beard, Jill; Dale, Penny. New Review of Academic Librarianship 14. 1-2 (November 2008): 99-114.  
[Citation](#) [S.F.X](#)  
[Save to My Research](#) [Delete](#)

Tip

When you have a My Research account, you can save items in ProQuest for future use by clicking "Save to My Research." [Learn more](#)

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*Purpose* – To acquire academic literacy students need library buildings that take account of “what the student does”, changing learning styles and preparation for employment in a digital world. Equally as academic staff develop innovative e-learning activities, library spaces need to accommodate new learning opportunities. This paper aims to consider how the design of library buildings contributes to a complex and evolving range of academic literacies and emerging pedagogical frameworks. The paper also seeks to consider the contribution these literacies make to the experience of students reading for a degree in an increasingly digital environment.



*Design/methodology/approach* – The paper draws on the experience at Bournemouth University, where a higher education academy-funded project accelerated the introduction of new technologies into learning and teaching frameworks. A new library building, The Sir Michael Cobham Library, enabled the creation of learning spaces that are flexible and responsive to the changing needs of users.

*Findings* – Innovative spaces and evolving pedagogies demand different levels of academic literacy to enable students to succeed in physical and digital environments.

*Originality/value* – This reflective review adds new dimensions to the body of knowledge underpinning both the study of learning spaces and academic literacy.



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# OECD: The learning environment

The Nature of Learning - Books - OECD iLibrary - Windows Internet Explorer

http://www.oecd-ilibrary.org/education/the-nature-of-learning\_9789264086487-en

the nature of learning" OECD 2010

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★ Favorites | booking.com hotel Condesa ... BudgetAir.nl - boek gemakk... Suggested Sites Free Hotmail Web Slice Gallery

Homepage — U... FOR VISITORS |... academic litera... Emerald | New L... The Nature ...

**The Nature of Learning**  
*Using Research to Inspire Practice*

PDF — 3.44Mb

09 Aug 2010  
Pages : 340  
ISBN : 9789264086487 (PDF) ; 9789264086470 (print)  
DOI : 10.1787/9789264086487-en

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What do we know about how people learn? How do young people's motivations and emotions influence their learning? What does research show to be the benefits of group work, formative assessments, technology applications, or project-based learning and when are they most effective? How is learning affected by family background? These are among the questions addressed for the OECD by leading researchers from North America and Europe. This book brings together the lessons of research on both the nature of learning and different educational applications, and it summarises these as seven key concluding principles.

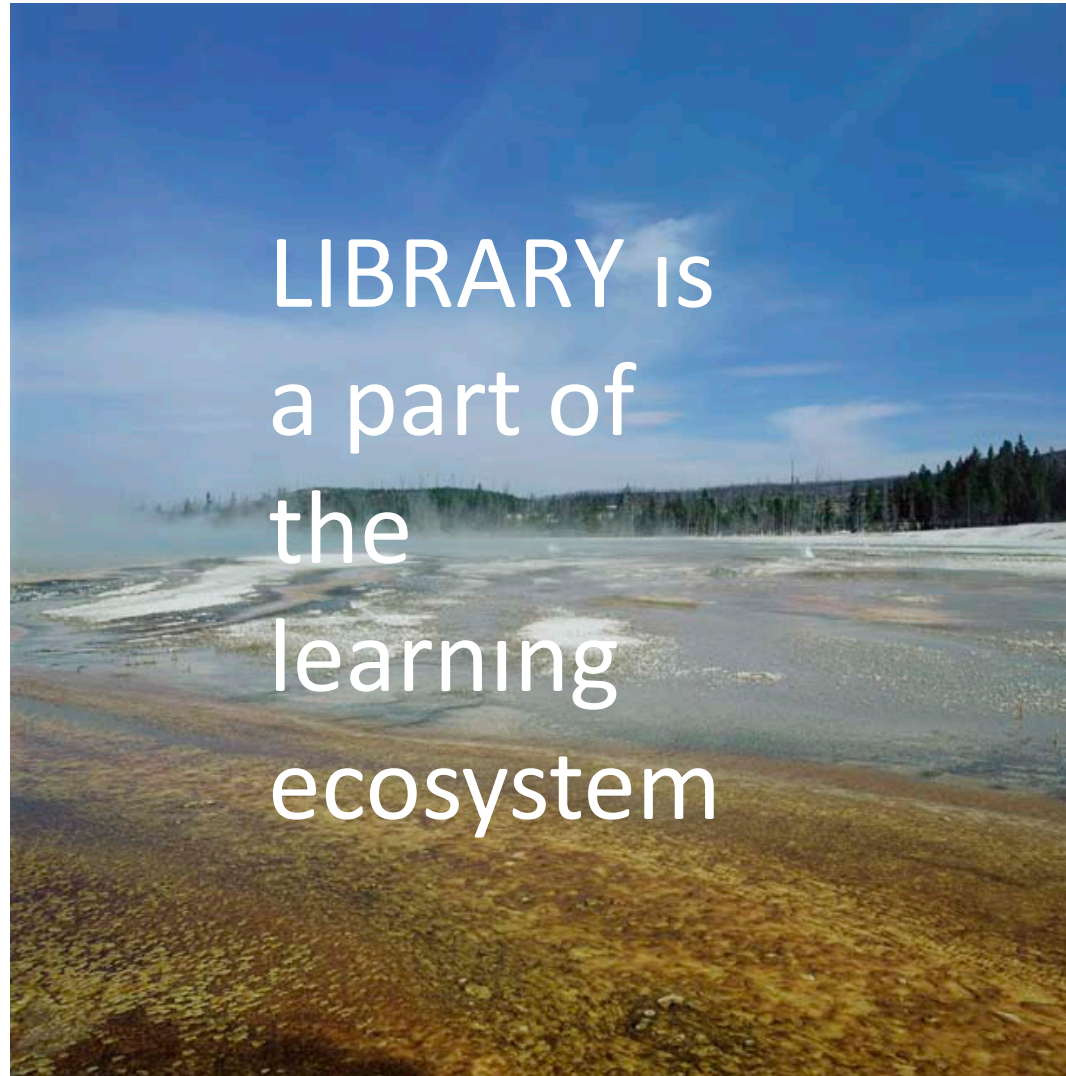
Among the contributors are Brigid Barron, Monique Boekaerts, Erik de Corte, Linda Darling-Hammond, Kurt Fischer, Andrew Furco, Richard Mayer, Lauren Resnick, Barbara Schneider, Robert Slavin, James Spillane, Elsbeth Stern and Dylan William.

*The Nature of Learning: Using Research to Inspire Practice* is essential reading for all those interested in knowing what research has to say about how to optimise learning in classrooms, schools and other settings. It aims, first and foremost, to inform practice and educational reform. It will be of particular interest to teachers, education leaders, teacher educators, advisors and decision makers, as well as the research community

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Learning environment,  
the « ECO »system in which we learn





# Learning environments

Information and knowledge management processes are part of this « ecosystem »

Two requirements:  
capacity AND capability

If we want to take profit of our technology investments, we have to **adjust our learning systems** to the benefits of the digital technology



- Development of an **outcomes-based educational approach.**
- Two factors are of great importance:
  - CONTENT MANAGEMENT**
  - COOPERATION**

**Gontsharova N**  
**Biker, 1913**

? ? ? ? ? ? ? ? ? ? ?

How did literacy (or illiteracy) becoming such a big problem that we are increasingly publishing, teaching, organising meetings and workshops about it, especially by library and information specialists....

And is it really the heart of the problem ?

# Literacy

Literacy Journals - Windows Internet Explorer

http://www.literacy.uconn.edu/litjrn.htm

File Edit View Favorites Tools Help

Home Page — U... library - Google ... Search Results ... keywords "infor... Literacy Jou... X

Find: litera Previous Next Options

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- [Grades 3-4](#)
- [Grades 5-6](#)
- [Grades 7-8](#)
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- [ESL/EFL](#)
- [Adult Education](#)

[What's New](#)  
[Literacy Topics](#)  
[The Literacy Web Home](#)

**Reading and Writing Journals**

- [Aera.net publications](#) includes online abstracts of articles published in
  - [American Educational Research Journal](#)
  - [Review of Educational Research](#)
  - [Educational Researcher](#)
  - [Education Policy Analysis](#)
  - [Review of Research in Education](#)
- [The ALAN Review](#) (Assembly on Literature for Adolescents)
- [Booklinks](#) from American Library Association
- [Booklist](#) from American Library Association
- International Reading Association's (IRA)
  - [Journal of Adolescent and Adult Literacy](#)
  - [Reading Research Quarterly Online](#)
  - [Reading Online](#)
  - [The Reading Teacher](#)
- Association for Supervision and Curriculum Development's (ASCD)
  - [Education Bulletin](#)
  - [Classroom Leadership Online](#)

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start Literacy Journals - Wi... http://192.168.1.1:8... Inbox - Outlook Express Microsoft PowerPoint ... 22:17

# IL

Information Literacy Website » IL journals - Windows Internet Explorer

http://www.informationliteracy.org.uk/information-literacy-publications/information-literacy-journals/

Search:  Go

information literacy

Home | About | Discussion List


You are here: [Home](#) » [IL publications](#) » [IL journals](#)

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## IL journals

A considerable amount of literature is available on information literacy. However, there are journals that concentrate on the topic.



**[Communications in Information Literacy](#)** is an independent, professional, refereed electronic journal dedicated to advancing knowledge, theory, and research in the area of information literacy. The journal is committed to the principles of information literacy as set forth by the Association of College and Research Libraries. CIL is also committed to the principles of open access for academic research.

The **[Educators' Spotlight Digest](#)** is a multimedia, online magazine dedicated to providing information and ideas to teachers of information literacy skills.

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start Information Literacy ... http://192.168.1.1:8... Inbox - Outlook Express Microsoft PowerPoint ... 22

# «PRINT Literacy »

Narrow: being able to read and write

Based on « a simple technology »

Broad: idem + « cognitive function »

Being able **to understand** what You read and write

**WHAT HAPPENED WITH THE DIGITAL  
REVOLUTION?**

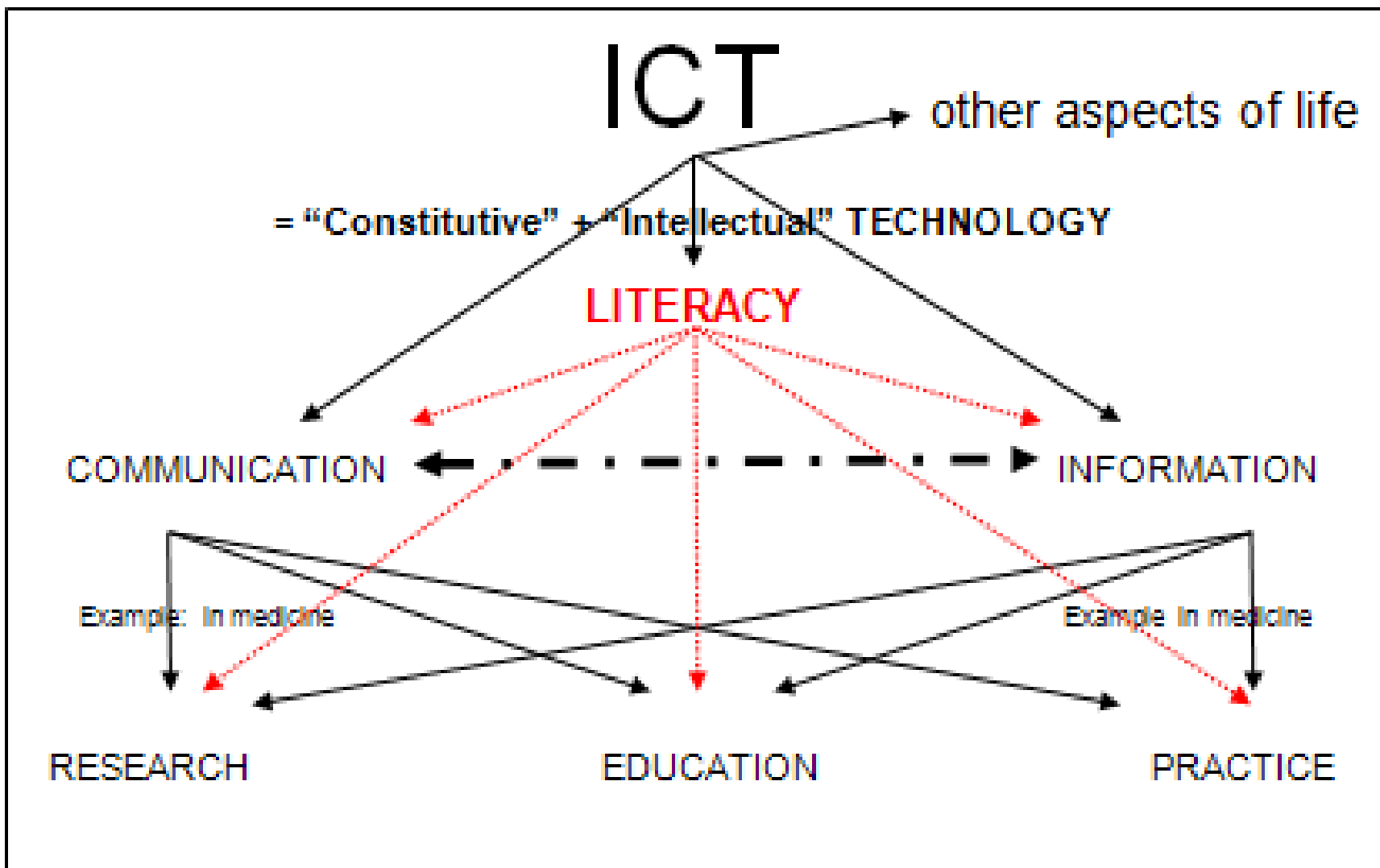
# ICT=constitutive+intellectual

- A **constitutive** technology:

Is a technology that has an impact on all aspects of human life (social,cultural, technical ...)

- An **intellectual** technology:

It mainly affects our cognitive functions and therefore has a major impact on the 'handling' of information, knowledge and learning



**LEGEND of Figure:** Hierarchical schedule of the relation between ICT, intellectual functionalities and the main fields in scientific disciplines. Literacy is defined as the capability to read and write in a broad intellectual context (making sense of the symbols; ability to hermeneutics).



# How did we organize our education (1) ?

First period: 2002-2008

Only medical curriculum (bach1, bach2, Ms3)

Content:

**library and document management oriented**

(document retrieval; use of bibliographic databases, reading and writing articles)

# How did we organize our education (2) ?

Second period: 2008-2010

medical integrated and modular curriculum (bach1, bach2, Ms3) continued + doct school

Start 30hrs course in Biomedical Sciences Curr. (classical curriculum: 15 hrs auditorium. 15 hrs hands on PC class)

**Content: changed after research on e-learning and upstarting collaboration with dept of educational studies**

**Information query oriented**

In 2009-2010 practical training (15 hrs) given by information specialist (Ann DM)

# How did we organize our education (3) ?

Third period: 2010-2011

medical integrated and modular curriculum (bach1, bach2, Ms3)  
continued + doct school

Cont. 30hrs course in Biomedical Sciences Curr. (classical curriculum)

**Content: more emphasized**

**Information processing oriented**

**Book; Response colleges rather than ex-cathedra; structural exercises; reporting and presentation, group queries, example guided (malaria) first part of practicum, followed by self-activity --  
--- BLENDED LEARNING**

**Two very active collaborators: Ann DM en Daisy DS**

# Curricula modular versus classical

- Own experience:  
the students in medicine (10 hrs + writing exerc.)  
are performing as well as the biomedical students  
(30 hrs) despite less hours of education
- Eskola:  
problem-based learning helps to develop  
information skills (as defined by ALA literacy  
standards and Christine Bruce)

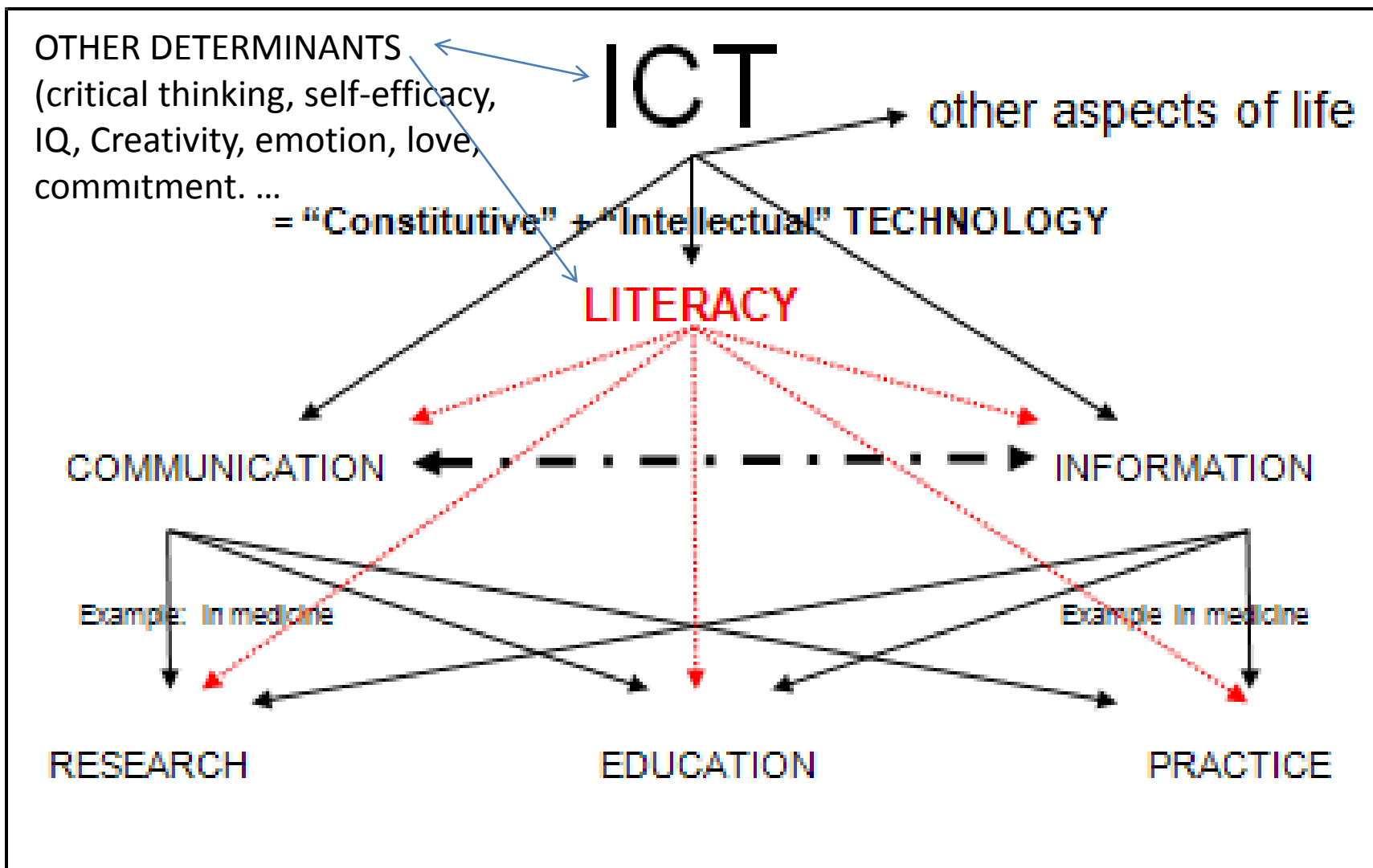
# Planning 2011-2012

- Rewrite book and write an English version
- Develop e-modules with feedback
- Reorganise information sciences course in the medical curriculum
- Integrate more content management exercises in biomedical curriculum
- Stress more the relationship research-scientific literature
- **STUDY SCIENTIFICALLY STUDENTS, OUTPUTS AND MODELS**

# Working hypothesis

(Information) literacy is a dependent variable related to the same determinants in the digital environment as in the print-environment:

- Critical (scientific) thinking
- Self-efficacy (creativity)
- Basic literacy (in its broad definition) – cognitive functions



**LEGEND of Figure:** Hierarchical schedule of the relation between ICT, intellectual functionalities and the main fields in scientific disciplines. Literacy is defined as the capability to read and write in a broad intellectual context (making sense of the symbols; ability to hermeneutics).

# New competences of the information specialist needed

- Curriculum analysis
- Integrate « ressources » in content (=course building)
- Master learning methodology
- Special focus areas: doctoral school, dissertation and thesis (reference librarianship)
- « ad hoc » counseling of consumers
- Interactive learning skills (digital learning platform use, webmodules design, social media, ....)



Able to swim in sweet AND salt water



# Future next exit (Prof. Kansu)

- Teaching 'basic' information sciences will be done in Kindergarten
- 'academic' literacy will be a requirement to start higher education and should be part of the curriculum

(Quote Kansu: the only thing they haven't learned is how to learn')

- Librarians will have another education, another role, a different work environment

# An old philosopher's lesson



No person is free who  
is not the master of  
the technology he  
made

*"No (wo)man is free who is  
not master of (her)himself."*

# EXTRA SLIDES

# Main errors in past (in my opinion)

- Train the consumer to become a librarian.....
- Teach information outside the context of the real information needs
- Focus too much on technology issues
- Confuse technology with creativity
- Teach information unrelated to content