Blended Learning:

a tool for capacity building

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„what is common knowledge today

has been science yesterday"

Prof. Dr. - Ing. H. Nacken

Internet users in Germany [bye age]

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Gesamt	6,5	10,4	17,7	28,6	38,8	44,1	53,5	55,3	57,9	59,5	62,7
Geschlecht											
Männlich	10	15,7	23,9	36,6	48,3	53	62,6	64,2	67,5	67,3	68,9
Weiblich	3,3	5,6	11,7	21,3	30,1	36	45,2	47,3	49,1	52,4	56,9
Alter in Jahren											
14-19	6,3	15,6	30	48,5	67,4	76,9	92,1	94,7	95,7	97,3	95,8
20-29	13	20,7	33	54,6	65,5	80,3	81,9	82,8	85,3	87,3	94,3
30-39	12,4	18,9	24,5	41,1	50,3	65,6	73,1	75,9	79,9	80,6	81,9
40-49	7,7	11,1	19,6	32,2	49,3	47,8	67,4	69,9	71,0	72,0	73,8
50-59	3	4,4	15,1	22,1	32,2	35,4	48,8	52,7	56,5	60,0	64,2
60 und älter	0,2	0,8	1,9	4,4	8,1	7,8	13,3	14,5	18,4	20,3	25,1
Berufstätigkeit											
in Ausbildung	15,1	24,7	37,9	58,5	79,4	81,1	91,6	94,5	97,4	98,6	97,6
berufstätig	9,1	13,8	23,1	38,4	48,4	59,3	69,6	73,4	77,1	74,0	78,6
Rentner/nicht berufstätig	0,5	1,7	4,2	6,8	14,5	14,8	21,3	22,9	26,3	28,3	32,0

Basis: Onlinenutzer ab 14 Jahren in Deutschland
Quelle: ARD-Onlinestudie 1997, ARD/ZDF-Onlinestudie 1998 - 2007

NWRC Cairo
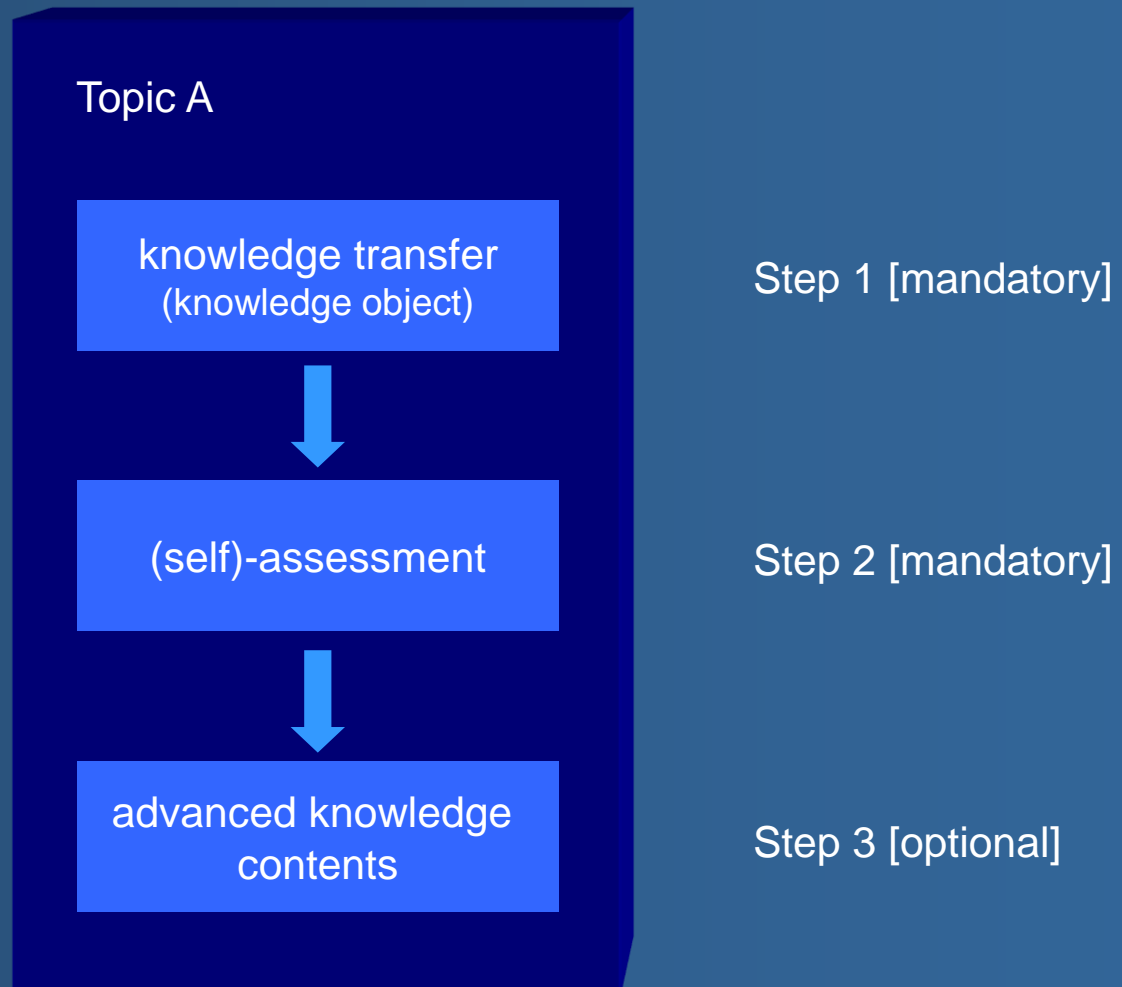9.04.2009

Blended Learning =
traditional face to face teaching + eLearning

classic teachings (real world)

local knowledge management

static contents

stationary learning

synchronous communication

cooperative learning

Blended **Learning**

individual learning

asynchronous communication

mobile learning

dynamic contents

distributed knowledge management

virtual teachings (virtual world)

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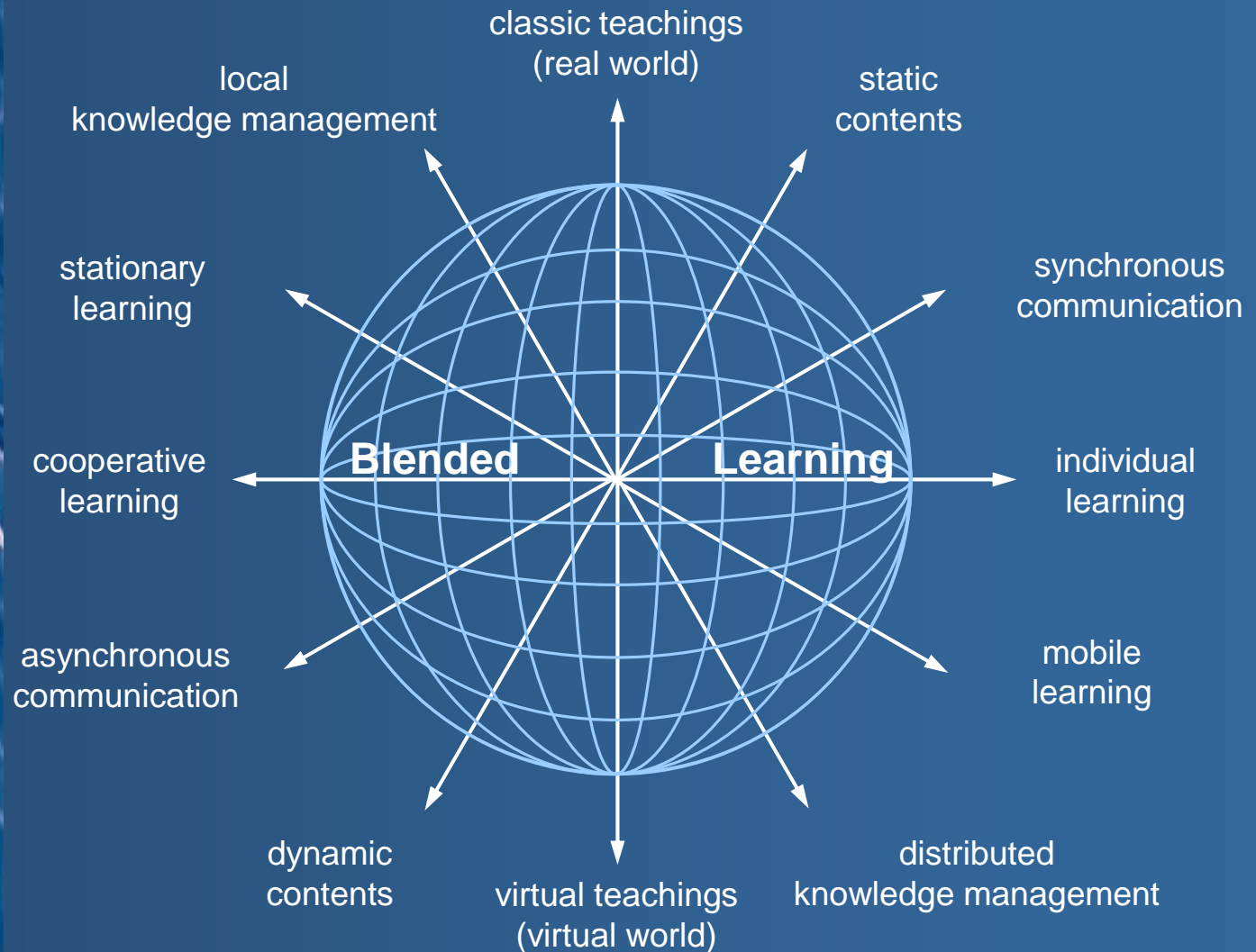
The fundamentals of the SOI-Theory

The basic assumptions of the theoretical SOI-Model
(Selection-Organisation-Integration) are:

- Human knowledge processing strictly seperates between aural and visual input (two sperate channels for information entrance)

- The processing capacity of the two input channels and the work memory is limited (the magic 7)

- Learning is always an active process;
  we have to develop a coherent, mental model (or reproduction) of the learning object.

Didactical structure

Topic A

knowledge transfer
(knowledge object)

Step 1 [mandatory]

(self)-assessment

Step 2 [mandatory]

advanced knowledge
contents

Step 3 [optional]
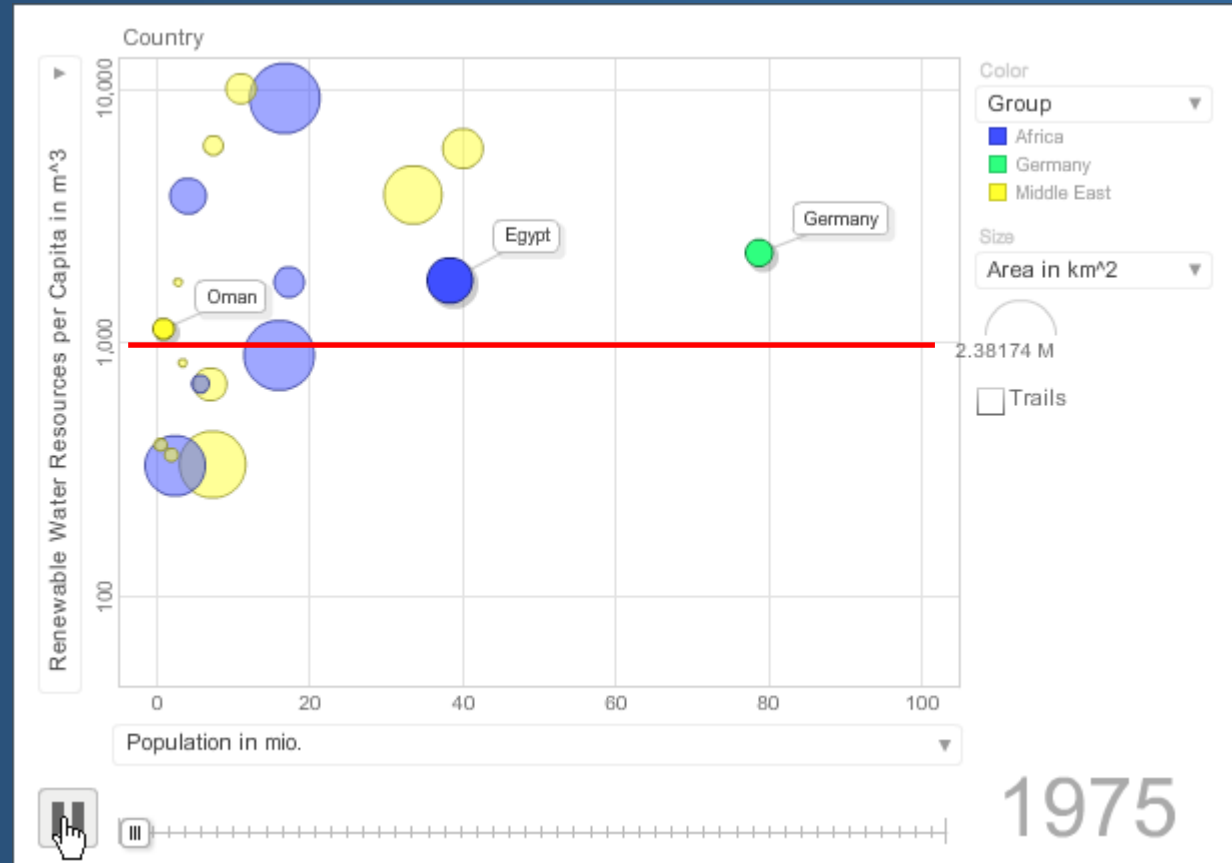
- **eSWES**

  eLearning System for Water and Environmental Studies

- **TOTWAT**

  Think Interdisciplinary: Training-of-Trainers Program for
  Interdisciplinary Water Management

- **WATENium:**

  Water Resources Management and Environmental Engineering
  Program

  Consortium:

  - National Water Research Center
  - Cairo University
  - EL-Fayoum University
  - Institute of Advanced Studies (Austria)
  - Ain Shams University
  - RWTH Aachen University
  - Helwan University

  - UNESCO-IHE Delft

  - RWTH Aachen University

UNESCO chair in Sustainable Water Management

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ihp·hwrp
germany
Water - from local to global,
progress by networking

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Basics of eLearning
by Univ.-Prof. Dr.-Ing Heribert Nacken - Thursday, 6 September 2007, 11:11 AM

Interested in basics of eLearning ?

If so, just have a look at the eLecture on basics of eLearning that has been set up in alliance with the WMO expert meeting on computer-aided distance learning in Metorology / Hydrology / Water Resources in China.

RWTH Aachen University is member of iTunes U
(starting from February 2009)

Enter the course

Prof. Dr. - Ing. H. Nacken

http://unesco-china.lfi.rwth-aachen.de/

Used standards and tools

Learning Management System:

- Moodle   Assignment / Chat / Forum / Glossary / Lesson / Quiz / SCORM / Survey / Wiki / Workshop / RSS

Standards:

- Sharable Content Object Reference Model (**SCORM**)
- Question and Test Interoperability Specification (**QTI 2.0**)

Personal learning environments

"The logic of education systems should be reversed

so that it is the system that conforms to the learner,

rather than the learner to the system"

Prof. Dr. - Ing. H. Nacken

What´s next on the agenda?

Web 1.0

Web 2.0

Learning management
system (LMS)

Personal learning
environments (PLE)

Social software

What 's missing ?

- an (non-commercial) eLearning stock exchange

- a benchmarking system for learning objects and learning content

our conclusion:

To e or not to be !