



The Integration of ICT on a Faculty-Wide Basis:

Challenges, Problems, Perspectives



The 2F Project - Objectives

- to create a stream-lined platform for a modern and flexible faculty starts by investigating, evaluating and developing:
 - the role of ICT as the catalyst
 - the role of ICT in learning methods and environments
 - the role of ICT in research networks
 - the role of ICT in knowledge sharing and knowledge management



The 2F Project – NON-Objectives

- to scare ICT weak colleagues
- to scare ICT skeptical colleagues
- to force colleagues to obey "ICT orders"
- to create an A-team and a B-team
- to ride the latest fashion wave with the hottest trends



The 2F Project - Background

- a series of web based learning experiments (1998-2000) involving the faculty and the library showed
 - that the use of ICT in teaching and learning would make the necessary upgrading of the study programmes possible
(on-campus-training → blended learning, just-in-time- and just-in-place-learning)
 - that new learning methods were needed
(instructivism → constructivism)
 - that changing the learning methods would imply changes of the whole organization



The 2F Project - Funding

- The Ministry of Education:
 - 1 million DKK a year 2001-2004 (3 years)
 - a project manager
 - a web designer
 - services from the library
- The Faculty
 - manpower: colleagues run their projects within the framework of P2F
 - ICT, support, administrative back-up



The 2F Project - Learning

- From teaching (instructivism) to learning (constructivism)
- The ICT must support the individual learning process – not old wine in new bottles, no electrified teaching
- Traditional lessons and timetables must be replaced by the just-in-time/just-in-place concept



The 2F Project - Learning

- Needed
 - adequate infrastructure
 - round the clock access to learning resources
 - ICT support for colleagues and students
 - look-out persons (programs, web sites, etc.)
 - research
 - knowledge sharing
 - co-operation



The 2F Project - LRC

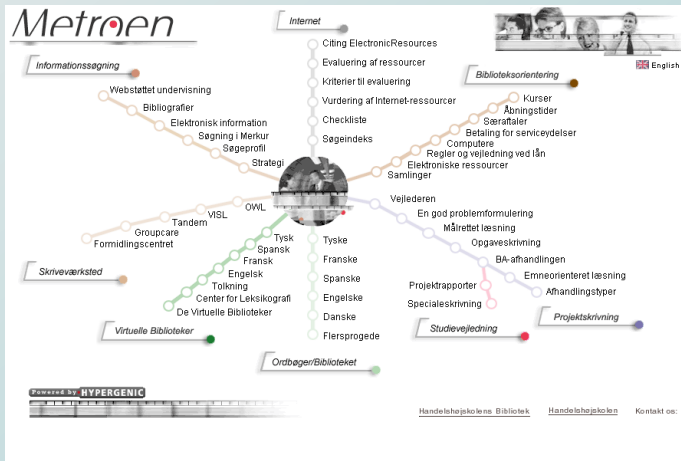
- What have we done so far?
 - set up a Learning Resource Centre
 - 64 PC's + 10 Macs
 - the Office of the Librarian
 - encyclopaedia
 - about 90% of our students have their own PC with web access
 - library resources round the clock
 - libraries and





The 2F Project - METRO

- What have we done so far?
 - set up a portal for all students, the so-called METRO






The 2F Project - METRO

- Problems
 - everybody knows the METRO
 - most students and colleagues
 - “nobody” uses the METRO
 - Reasons why
 - a too central
 - virtually
 - no
 - not profiled or positioned
 - limitations for dictionaries
 - competition from “Google”
- Petrol attendant pedagogy, after all? METRO
- Faculty (“everything and



The 2F Project - METRO

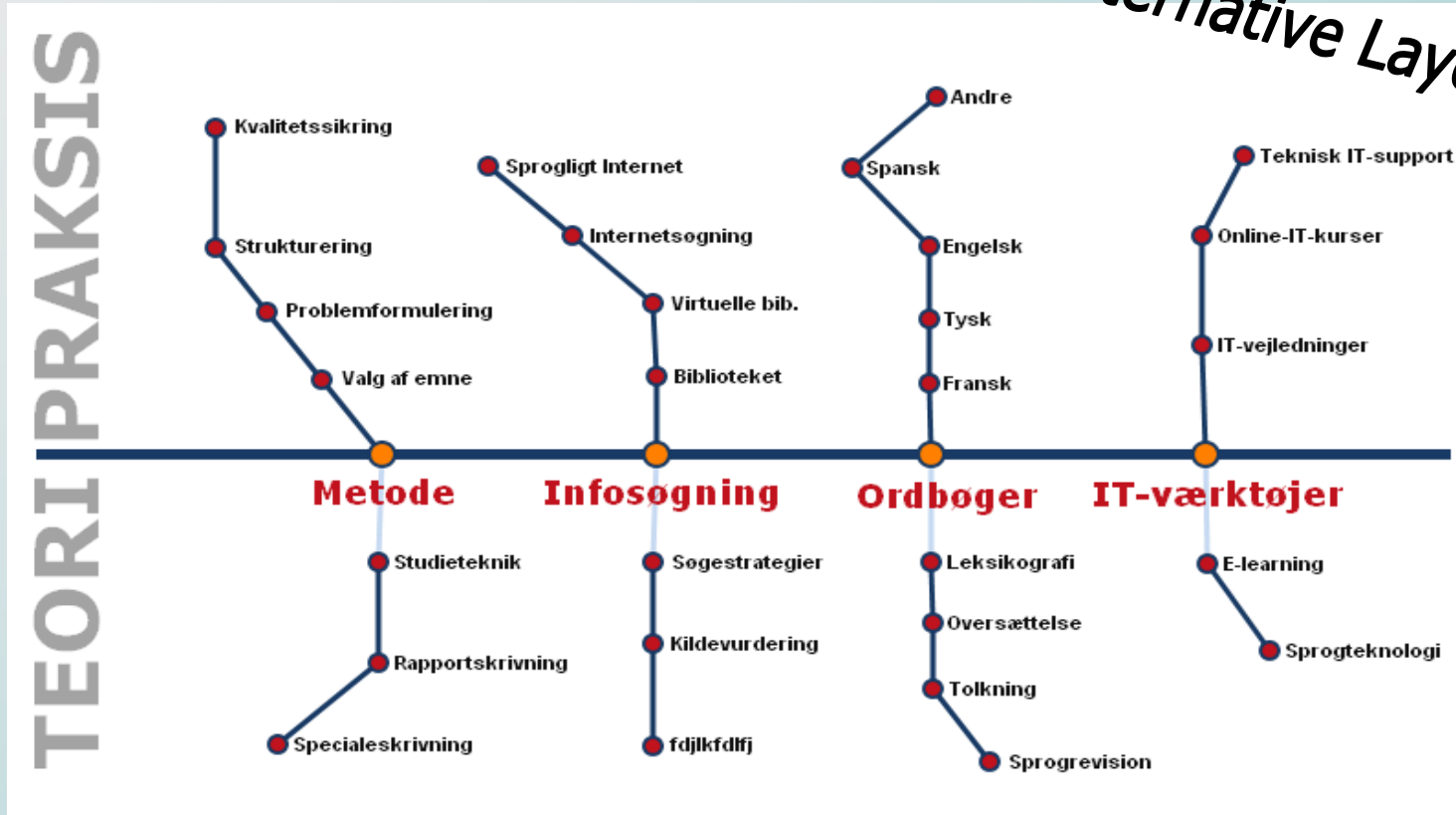
- Solutions
 - the contents of the METRO must be adapted to the individual user (via CampusNet): autonomy, personalization, individualization must be taken seriously
 - the structure must be simplified 
 - the electronic resources must be accessible off-campus (via CampusNet)
 - the teachers are more active in finding relevant material for the various stops on the lines





The 2F Project - METRO

Alternative Layout





New Learning Methods

- Develop specific and targeted information retrieval resources
 - person-specific
 - level-specific
 - discipline-specific
- Make the student him-/herself
- ... by the teacher(s)/librarian(s)

Explain WHY



New Learning Methods

- Let the students take ownership
 - create a web site for the project for which all participants are responsible
 - make the students responsible so that the students are involved in managing it
- Explain WHY
 - the three rooms
 - the Creativity Room
 - the Auditing Room
 - the Implementation Room



Explain WHY

- Fr. Nietzsche:
“Those who have a why to live can bear with almost any how”
- New learning methods cannot be implemented unless the students understand the rough changes
 - they have been brought up to be passive receptors
 - they expect edutainment



Explain WHY

- Introduce constructivism

why we follow the pedagogical line chosen
why we organize the learning environment, and
why we choose the learning tools the way we do

... of the course

- professional development

for only then are the students able to and willing to follow up,
only then do they profit from the learning process
– only then can they use our methods, the how, that is



Further MUSTS

- Introduce and use learning styles
 - learning styles based on sensation
 - learning styles based on perception
 - learning styles based on personality typology
- Questionnaires, observations and interviews are good tools for diagnosing learning styles



Further MUSTS

- Introduce communication rules (for use in communication)
 - rules

Personal differences according to psychological type
Gender specific differences
(**M** aggressive - **F** empathetic)

emojis (smilies ;-))



Requests to the teacher

- readiness to be a coach/facilitator and to stimulate the learning process
- readiness to interact empathetically with the students
- readiness to undergo changes – readiness to implement ICT
- self-insight – own learning style



Requests to the learner

- readiness to accept autonomy
- readiness to participate in teamwork
- readiness to undergo changes –
readiness to implement ICT
- self-insight, meta reflection



Some Like It Soft

- To create a well functioning learning environment we must take soft values seriously
- The technicians must not be the decision makers – but our humble servants
- The courses must be evaluated currently, and mismatches must be identified and repaired immediately