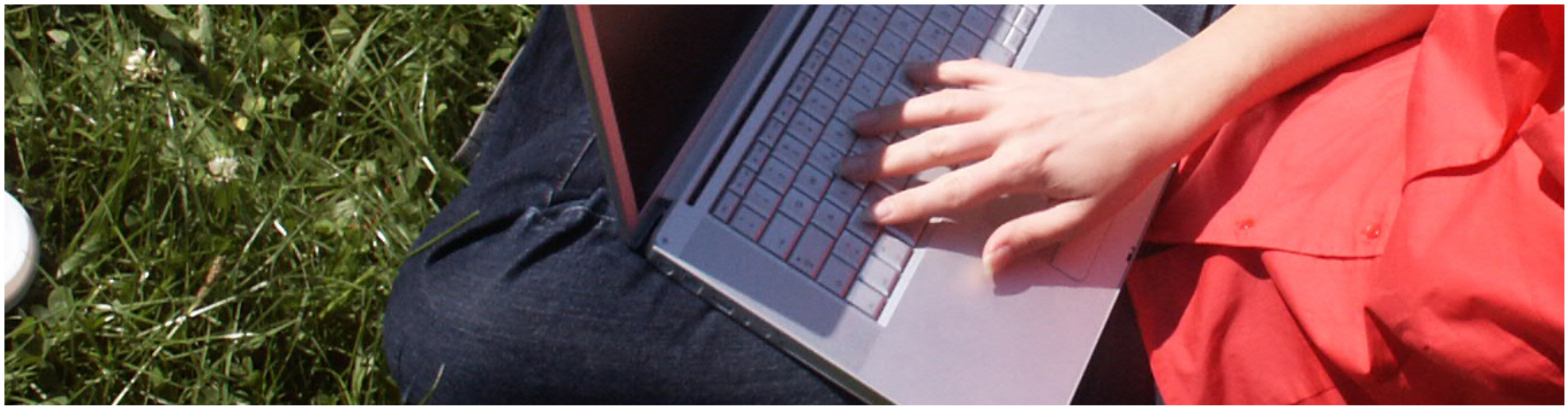
Freie Universität Berlin



E-LEARNING SUPPORT STRUCTURES

Prof. Dr. Nicolas Apostolopoulos
Freie Universität Berlin
Center for Digital Systems

CeDiS

The Freie Universität Berlin (FU)

FU facts and figures*

- 34,000 students, 60% women, 16% international
- 400 professors
- 1,700 academic staff, 40% research funded
- 2,200 additional staff
- 12 departments, including the Charité
- State budget: 290 million euros p.a.
- Third-party funding: 60 million euros p.a.
- Excellence Initiative: 150 M€ (for five years)

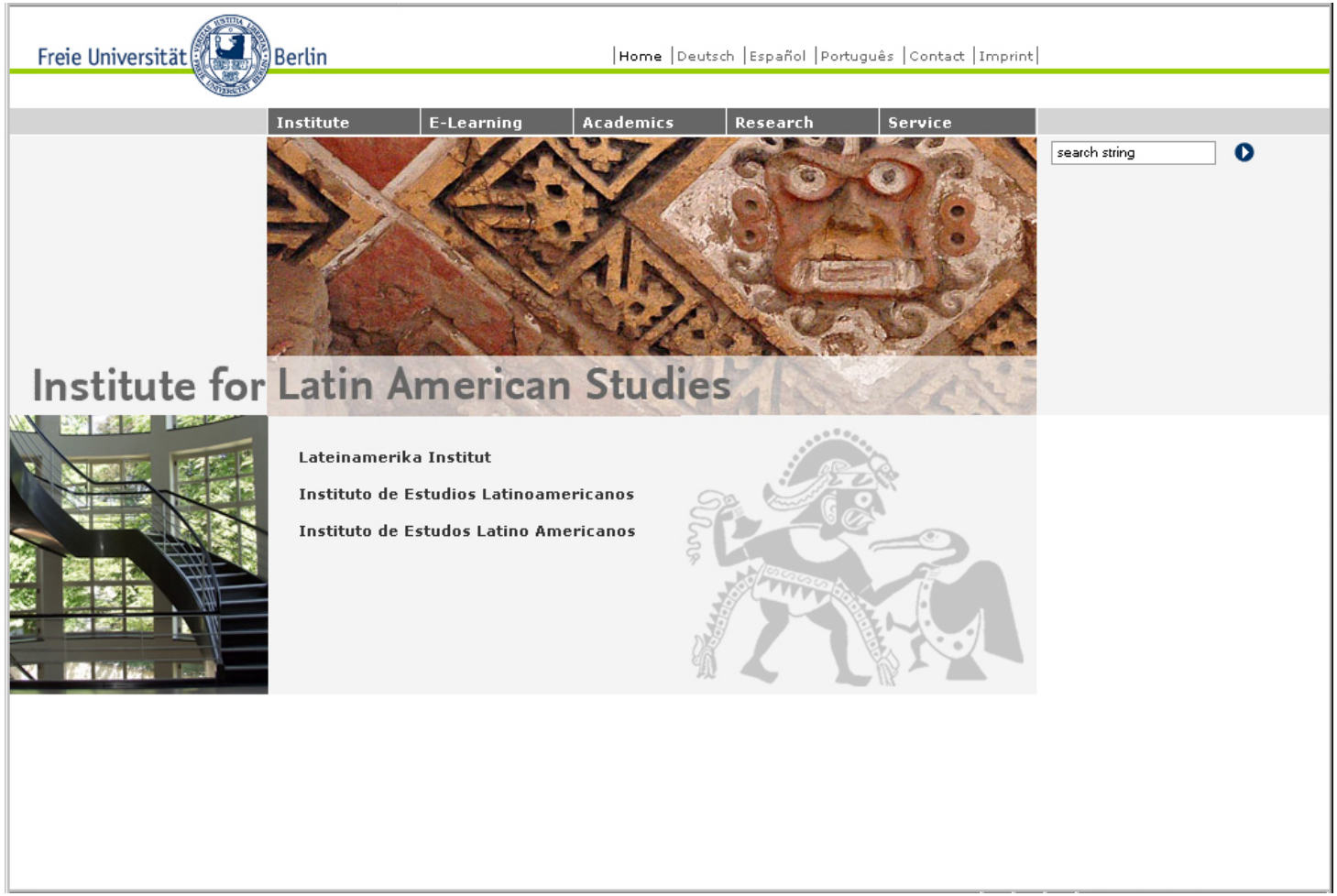
* Figures exclude human medicine (Charité)

FU Study profile

- Traditional full research university with 100 fields of study
- 74 institutes
- Center for Area Studies
  - John F. Kennedy Institute for North American Studies
  - Institute for Latin American Studies
  - Institute for Eastern European Studies
  - East Asia Studies
  - Middle East Studies
  - Center for Italian Studies
  - Center for French Studies
  - European Studies
- Bachelors and Masters programs
- Berlin University for Continuous Studies (joint venture with Klett Publ. Inc)

Institute for Latin American Studies

Institute for Latin American Studies, Homepage



What is TEL?

A phone?

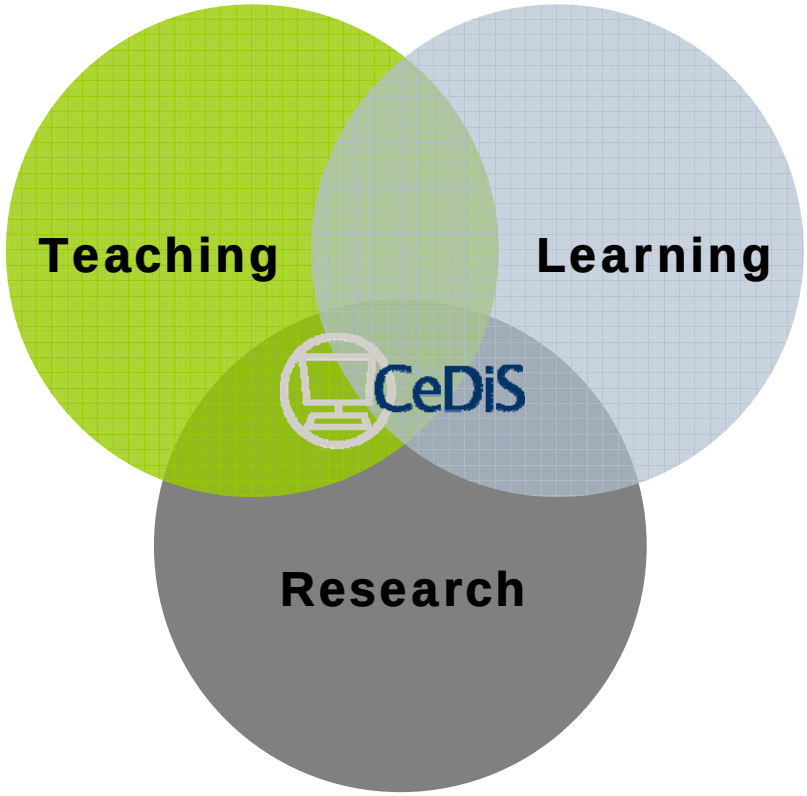
What is TEL?

A Telecom Company?

What is TEL?

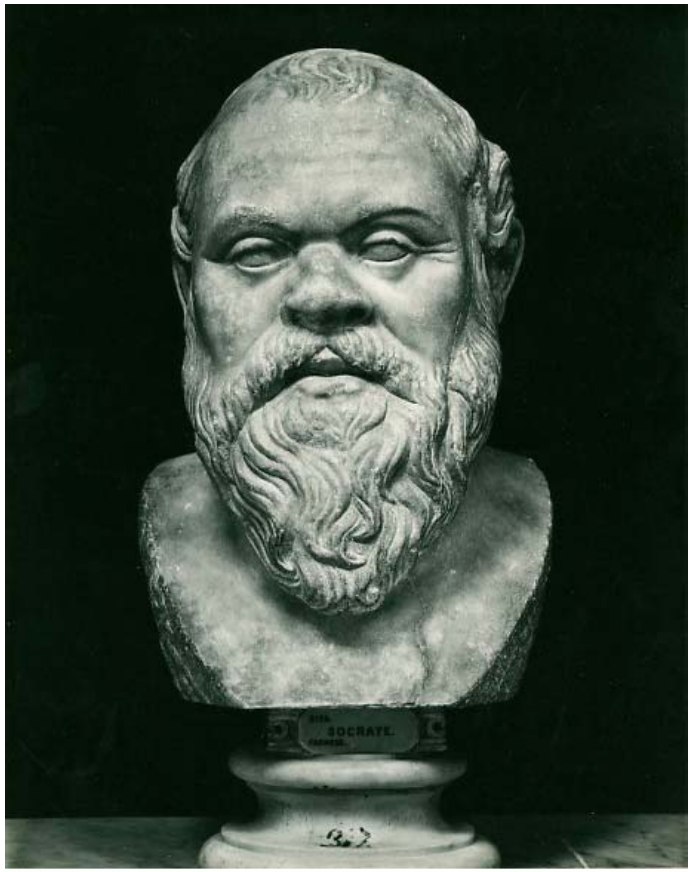
An acronym for „Technology Enhanced Learning“?

Excellence at Universities



Gerhard Casper, former President Stanford University

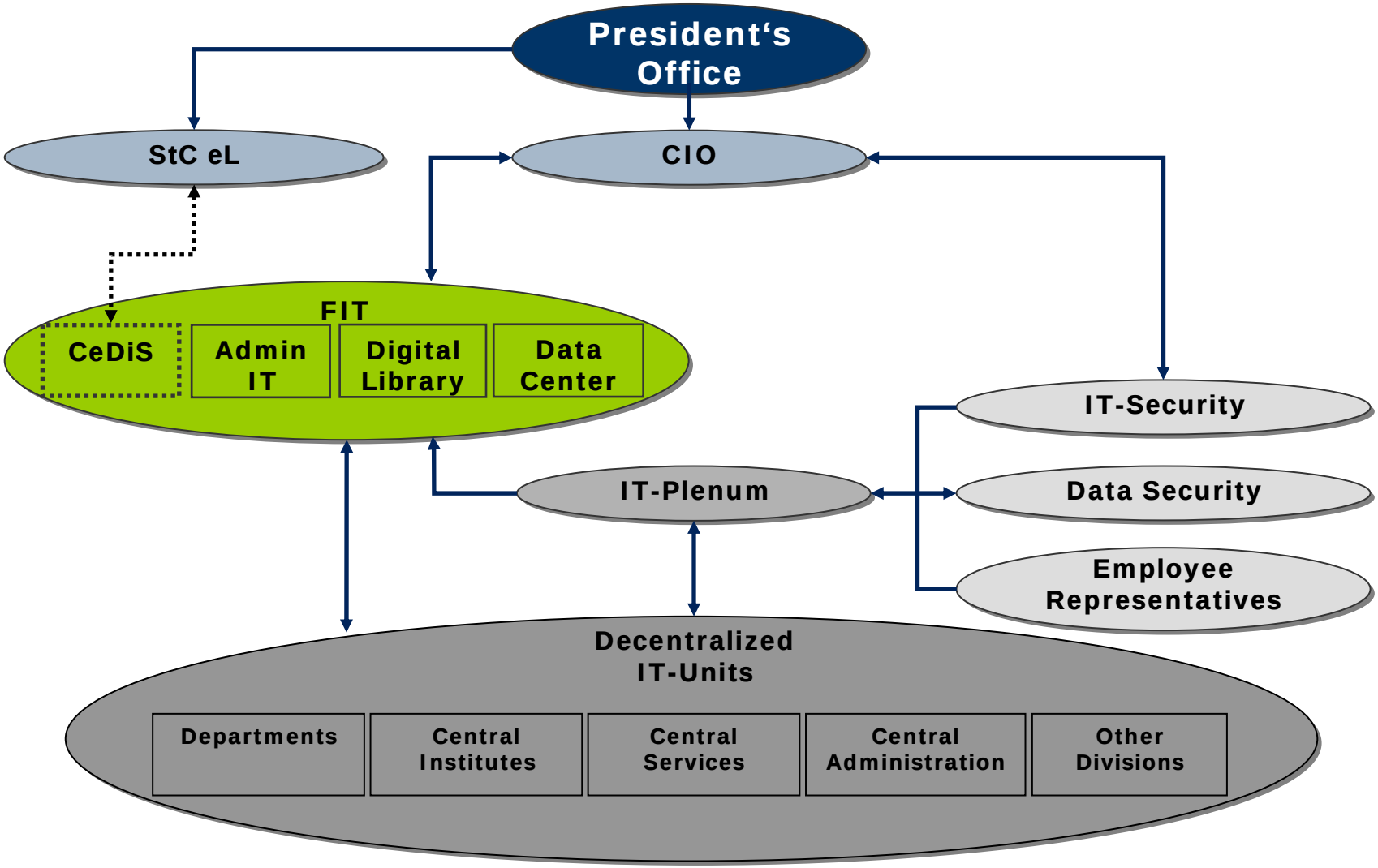
About lifelong learning …



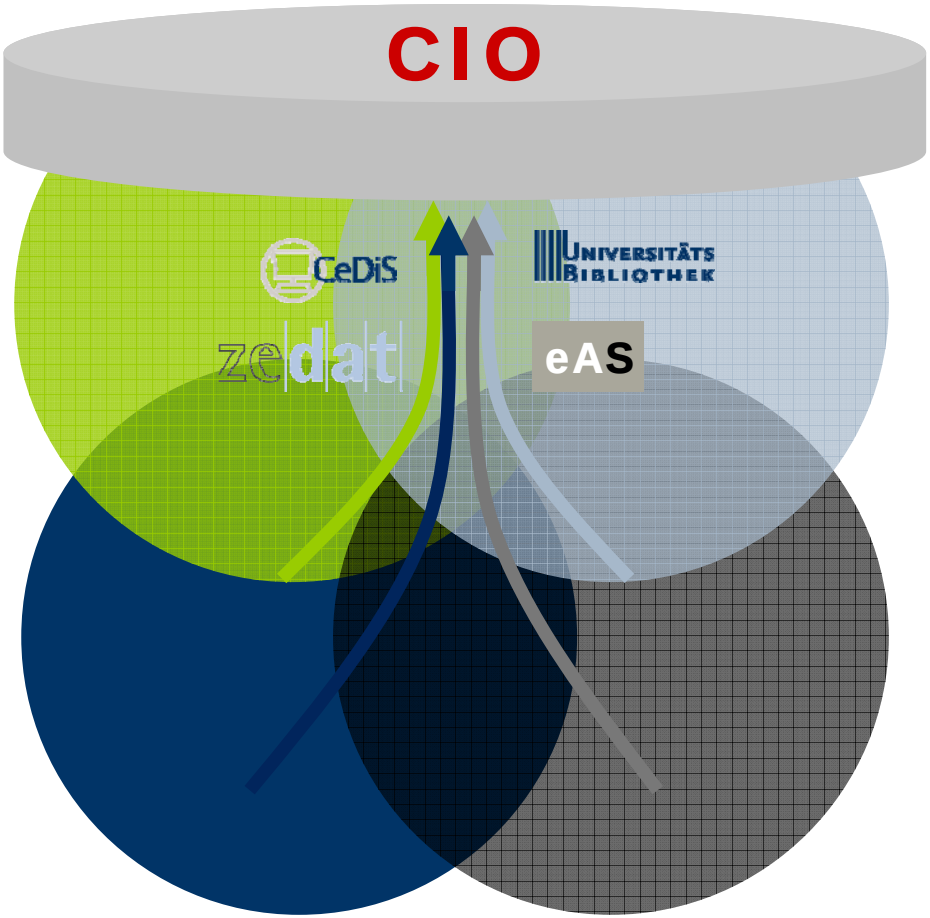
ΓΗΡΑΣΚΩ ΑΕΙ ΔΙΔΑΣΚΟΜΕΝΟΣ

ΣΩΚΡΑΤΗΣ
470-399 π.Χ.

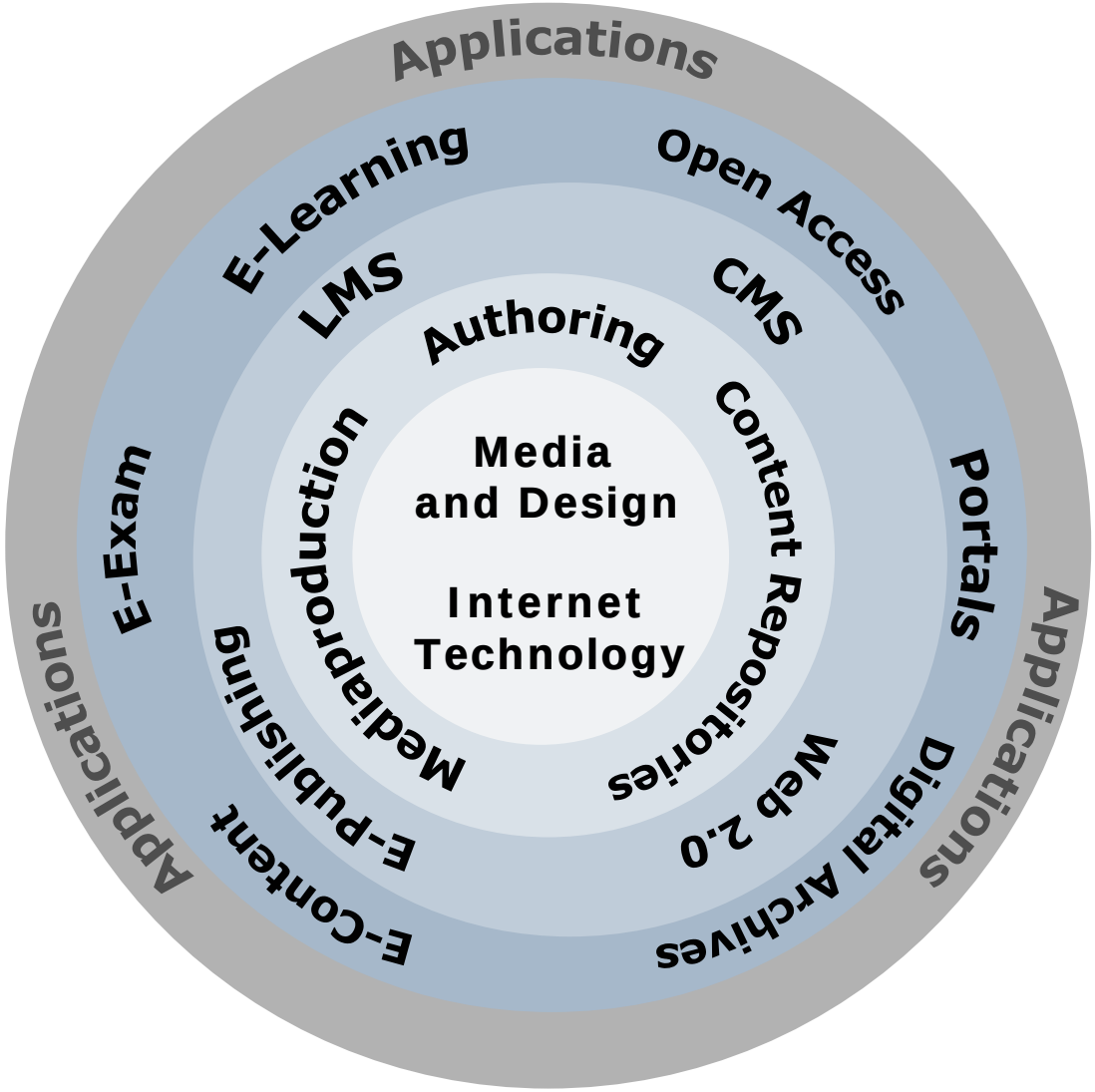
FIT: IT at the Freie Universität



FIT Strategic Alliance



CeDiS – Structure



CeDiS Teams

FU e-Learning Grants

powered by FUe-Learning

External Grants

e-Publishing Open Access

Web 2.0

Authoring

Learning Management System (LMS)

Media & Design

Content Management System (CMS)

DT in Education: Some Questions

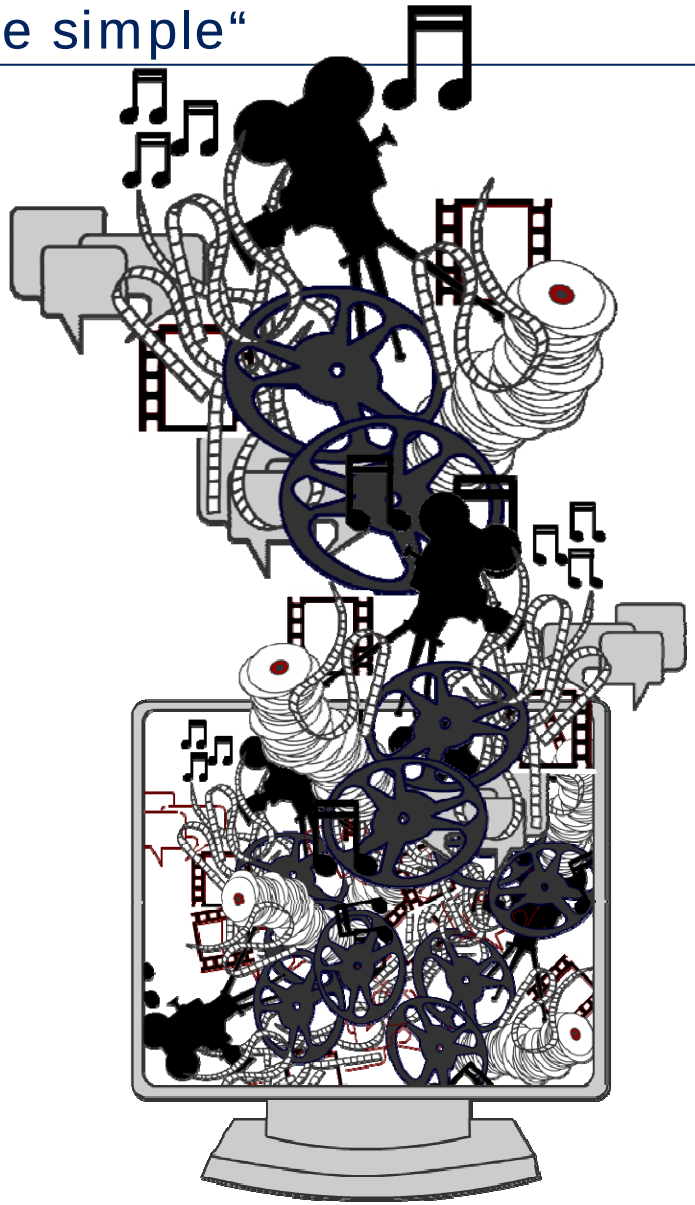
- Why is e-Learning so important?
- Why is e-Learning so difficult?
- Is there a complexity bubble?
- Is there a unique strategy?
- Will AI solve many problems?
- Will blended learning solve most of the problems?
- Will learner centered learning solve some of the problems?

- » Make wise use of Digital Technology (DT)!«

Outline I

I. **First steps in e-Learning**
II. e-Learning Engineering
III. e-Learning at a traditional University
IV. Coordinated action plan
V. The Web 2.0 Initiative
VI. Lessons learned
VII. Open issues

Multimedia “made simple“



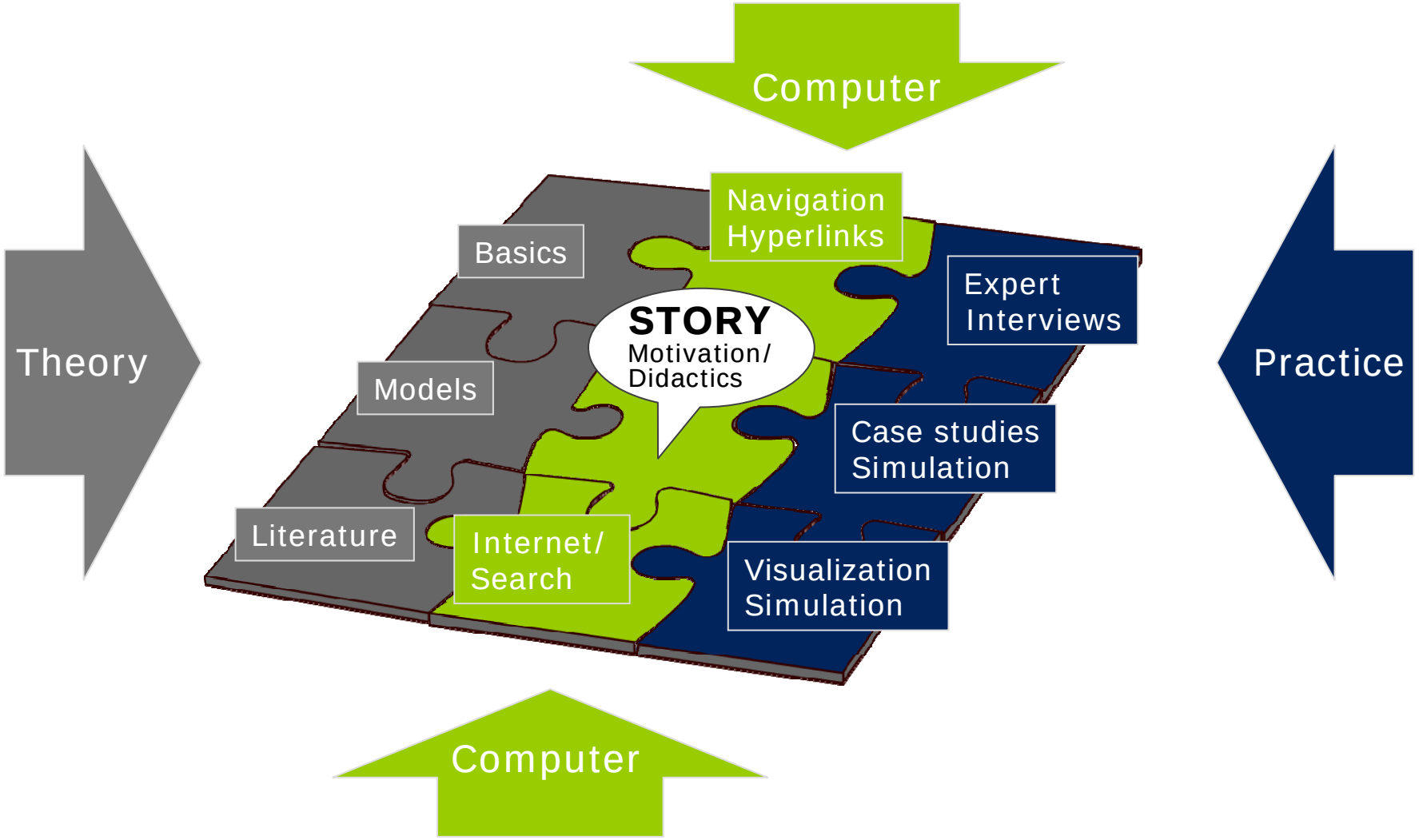
Fundamental Decisions for Multimedia Learning Applications

Attractive digital learning material increases learners' motivation and reduces the weaknesses of computer systems

- Problem based learning (constructivism)
- Combination of theory, practice and computer-aided tools (search, animation, simulation, hyperlinks)
- Enhanced visualization of abstract topics
- Integration of Video
- Active and rich interaction, personalization
- Multiple navigational assistance
- Creation of »aha«-effects

» Create humane applications «

The DIALECT Model



Outline II

I. e-Learning as an experiment

II. e-Learning Engineering

III. e-Learning at a traditional University

IV. Coordinated action plan

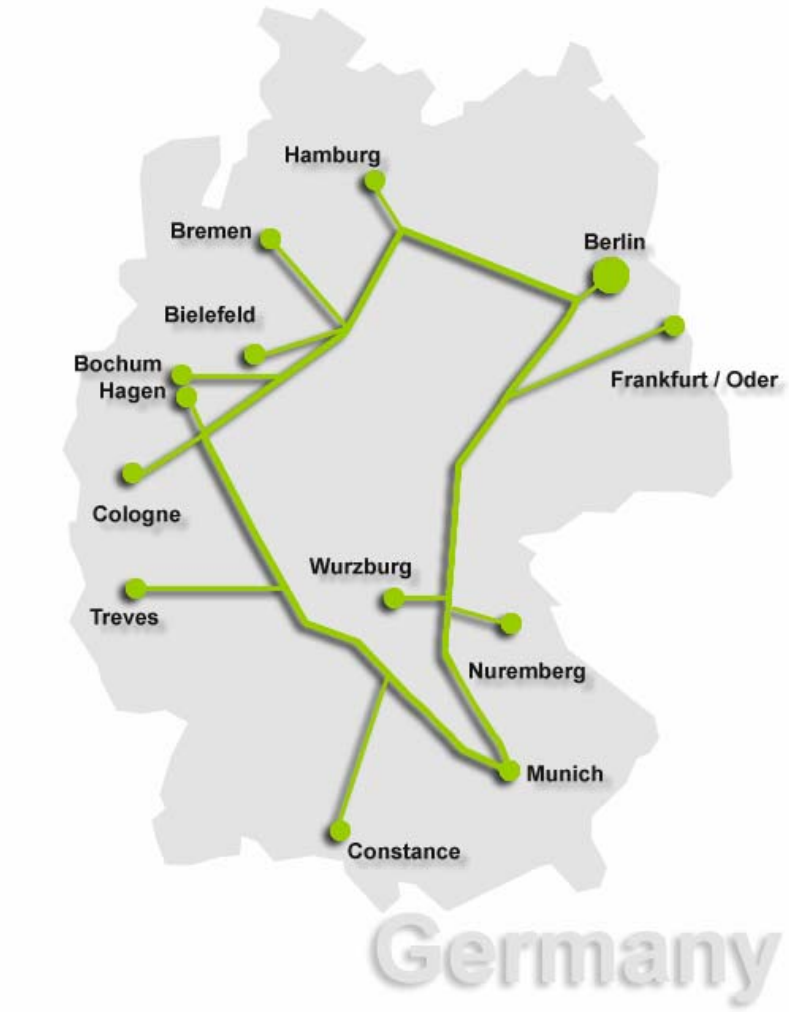
V. The Web 2.0 Initiative

VI. Lessons learned

VII. Open issues

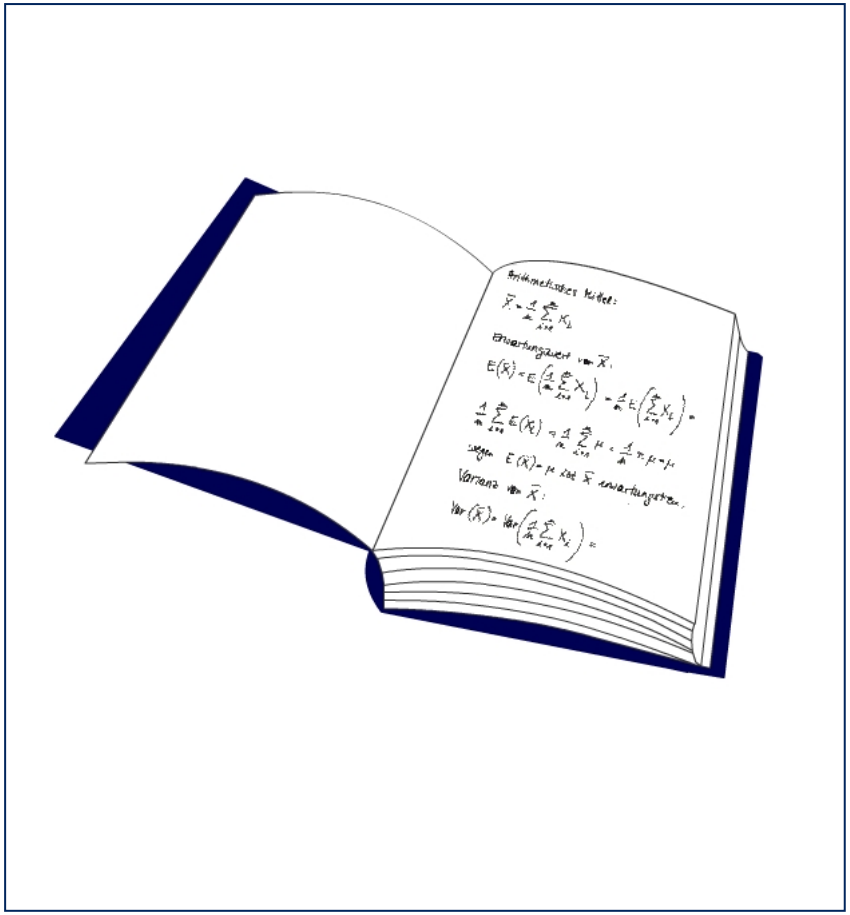
BMBF Project New Statistics

13 Departments at 10 German Universities



- European-University Viadrina Frankfurt/Oder
- University of Applied Sciences Cologne
- University Hagen
- Free University Berlin
- Friedrich-Alexander University Erlangen-Nuremberg
- Humboldt University Berlin
- University of Bielefeld
- University of Bremen
- University of Hamburg
- University of Konstanz
- Virtual University of Applied Sciences

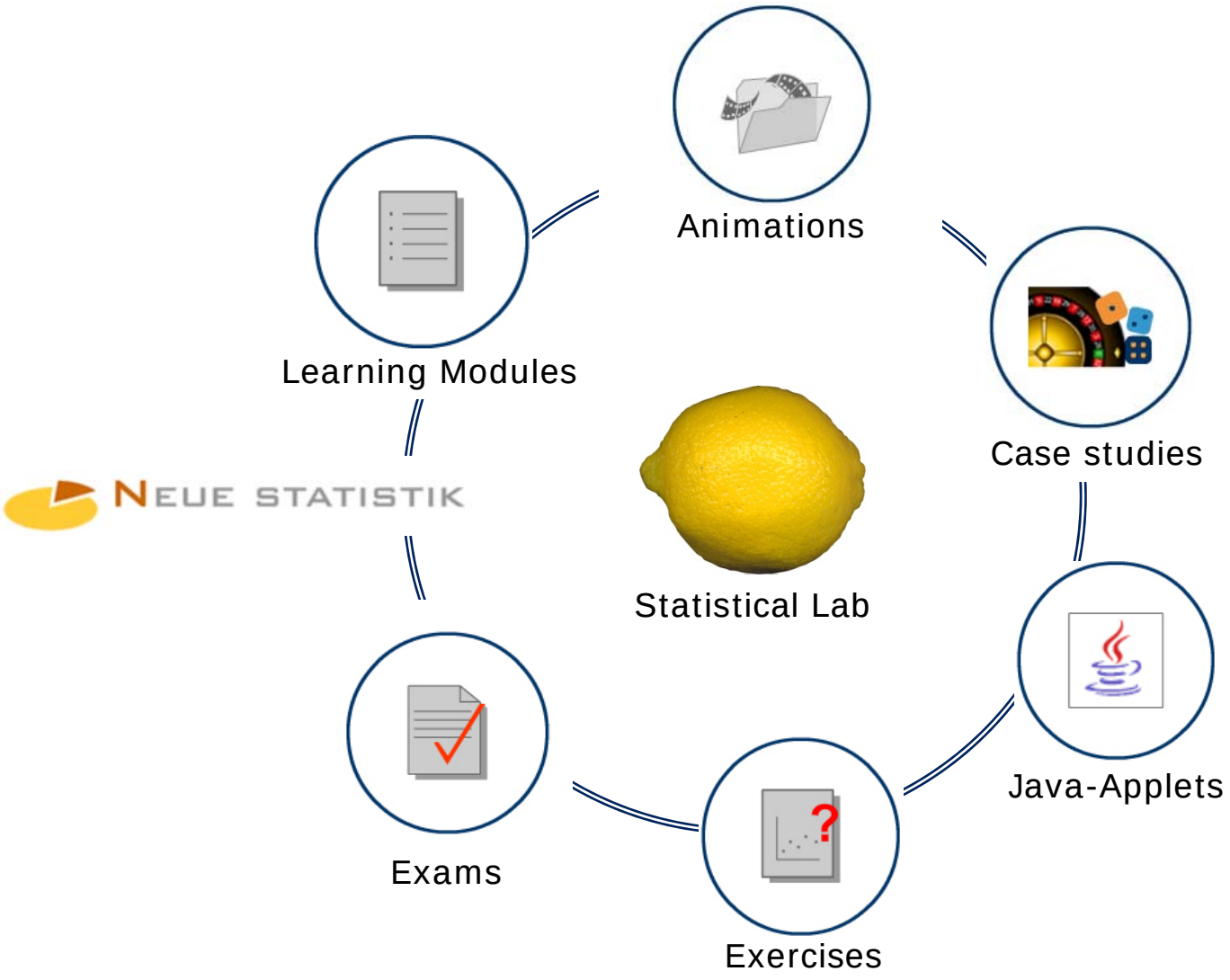
„Traditional“ versus „New Statistics“



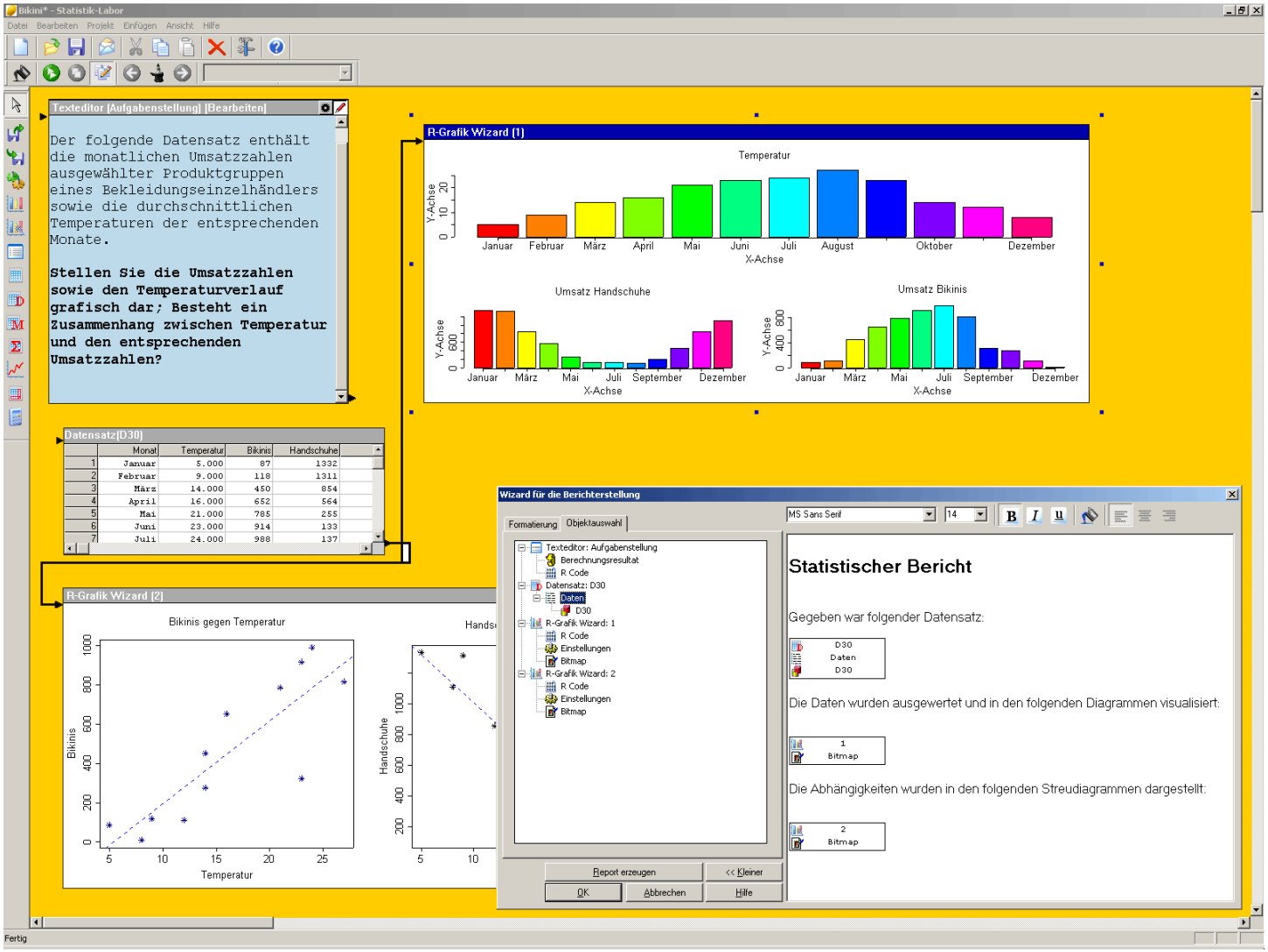
Statistics: yesterday and today

Statistics: today and tomorrow

New Statistics: Multimedia Learning Environment

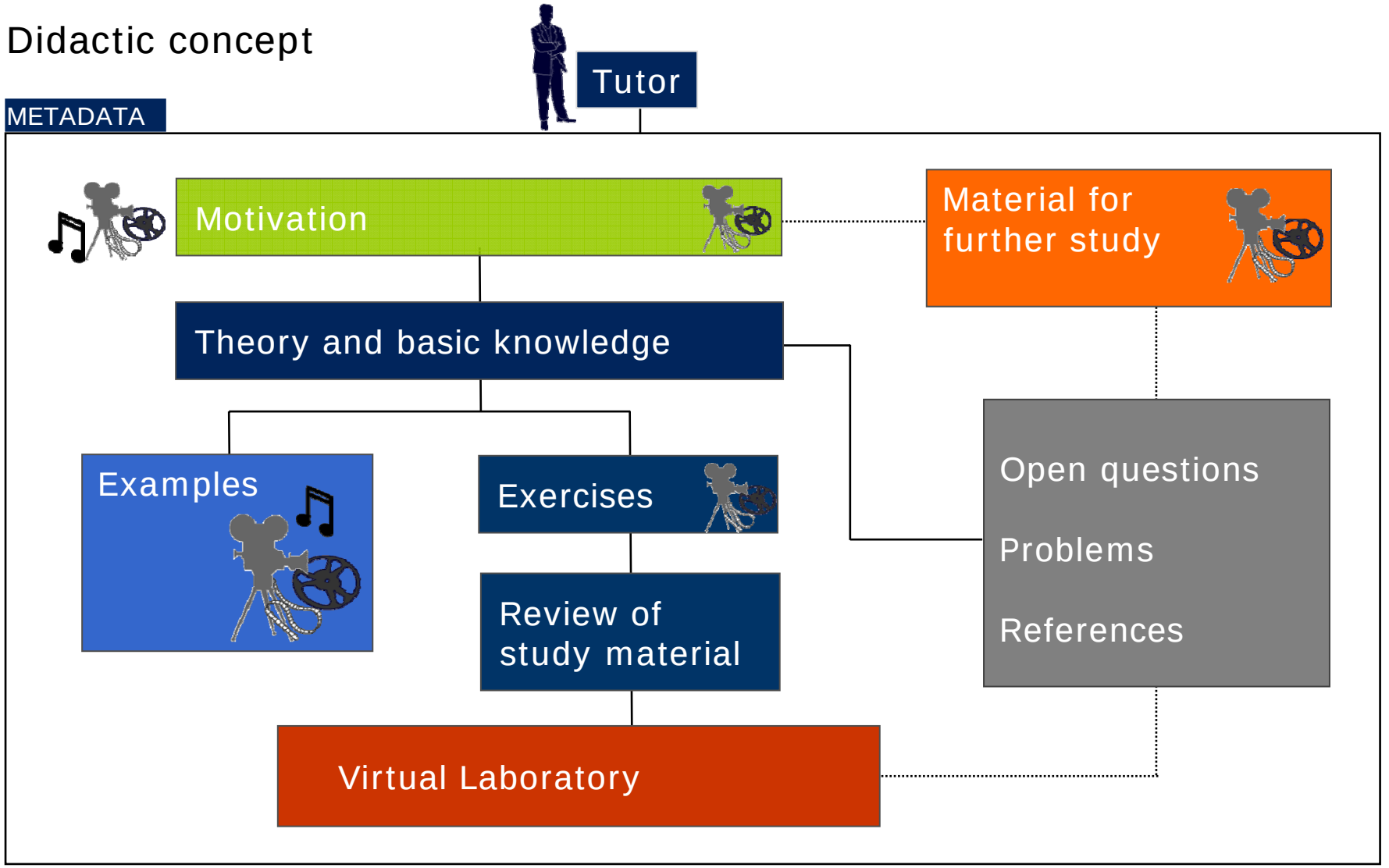


Statistical Lab (www.statstical-lab.org)

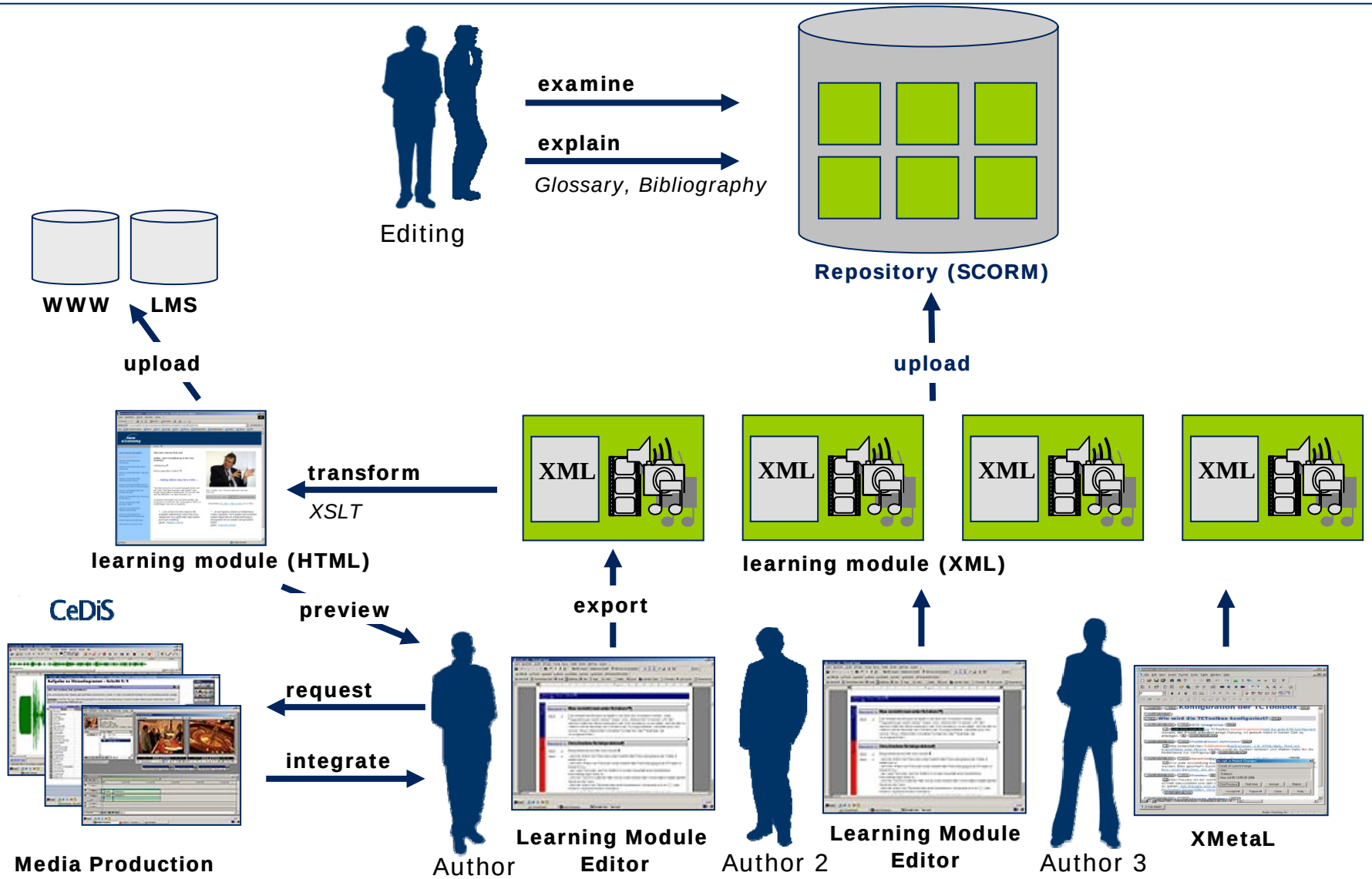


Authoring: Structure of Learning Modules

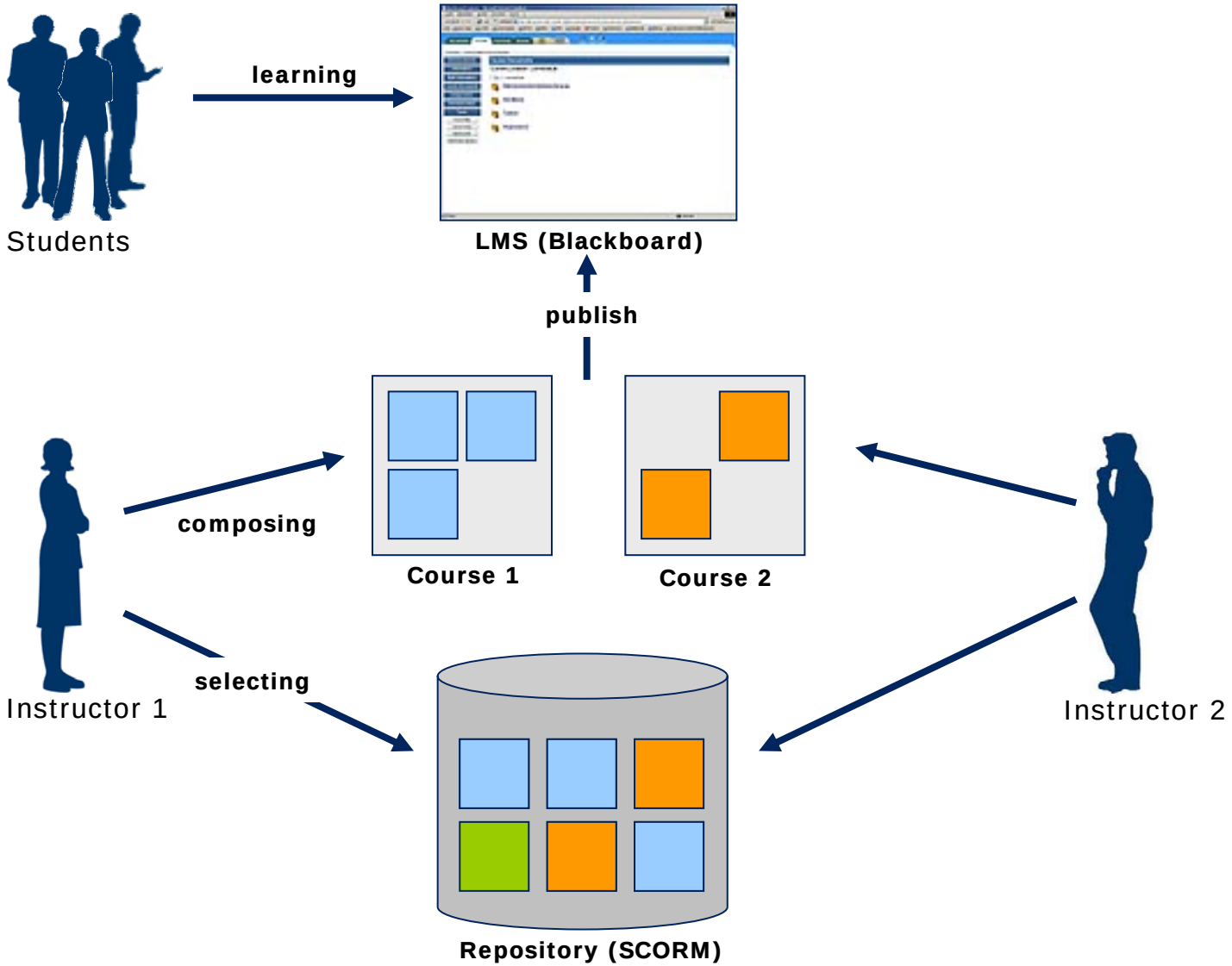
Didactic concept



Manufacturing Learning Modules



Course creation



Economics of E-Learning

It‘s the Economy, Stupid …

Outline III

I. e-Learning as an experiment
II. e-Learning Engineering
III. e-Learning at a traditional University
IV. Coordinated action plan
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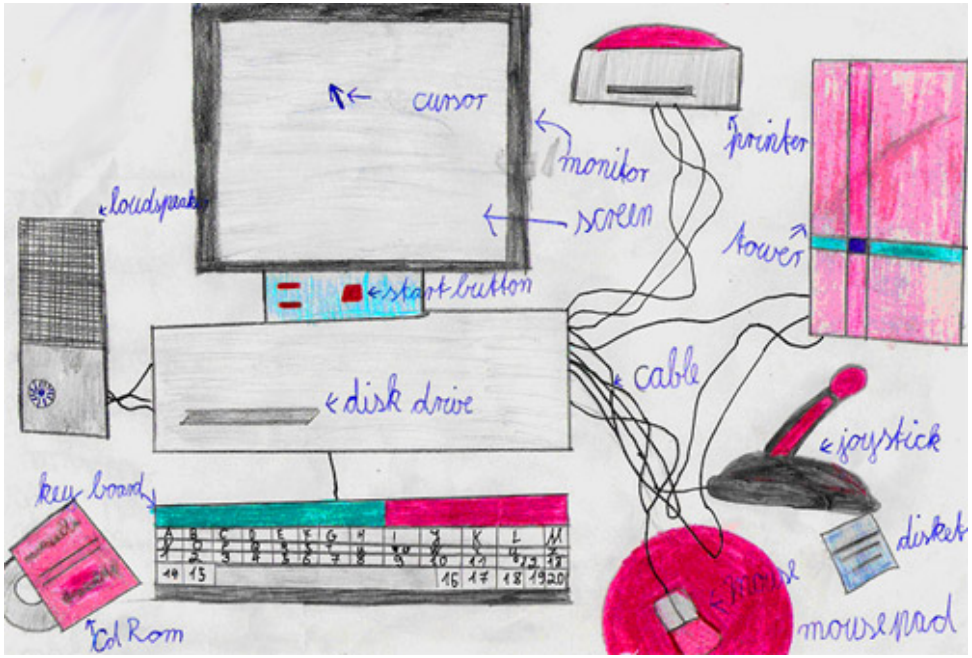
Vision: Is e-Learning easy to do!?



Source: www.uni-potsdam.de/agelearning/

e-Learning Environments

A significant advantage of e-Learning is the creation of individualized learning environments.....

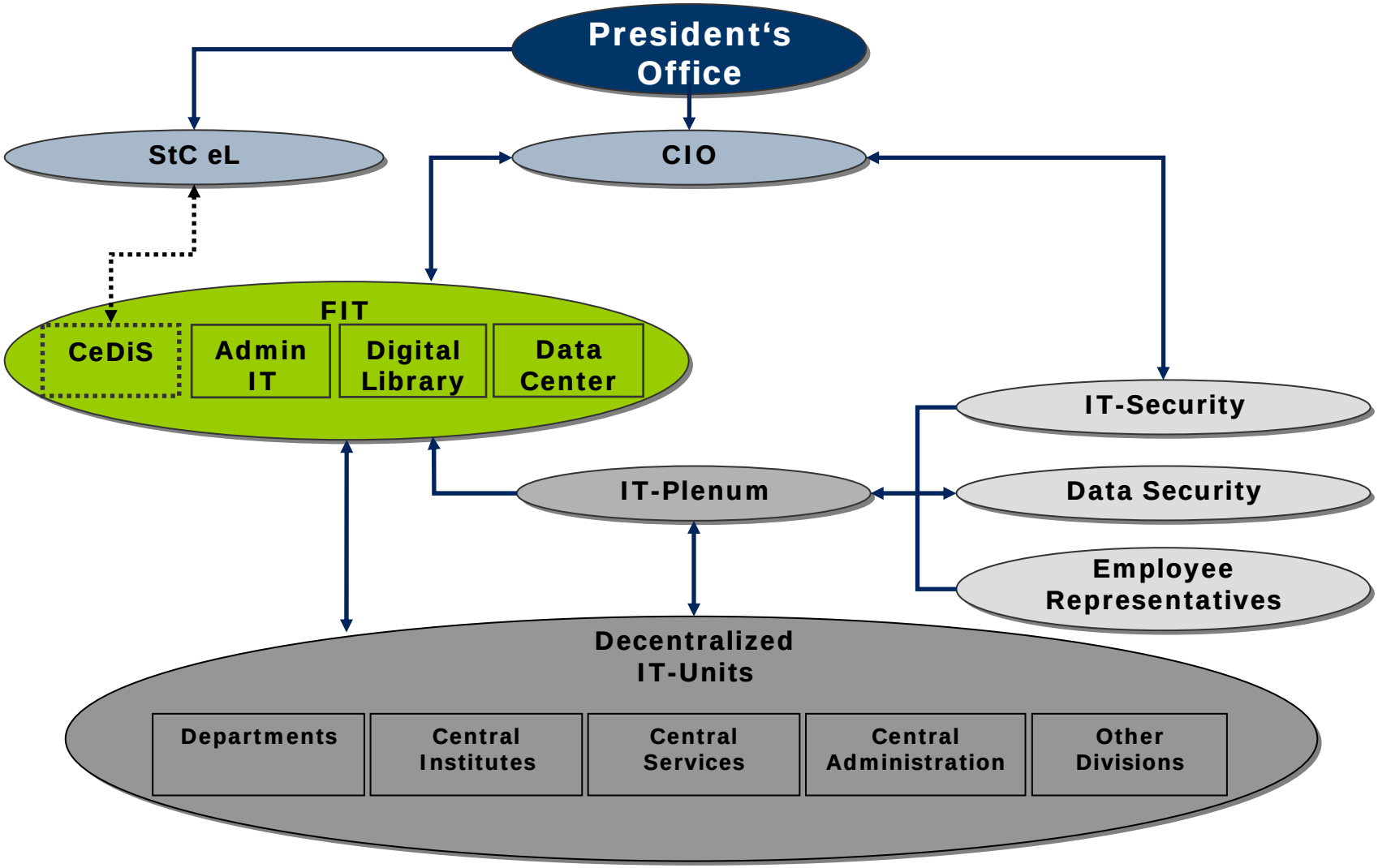
Source: www.open-academy.com/de/elearning/lernende_/index.html

e-Learning everywhere?

Digital Technology in Education: Future Vision...

Digital Technology and the Reality

FIT: IT at the Freie Universität

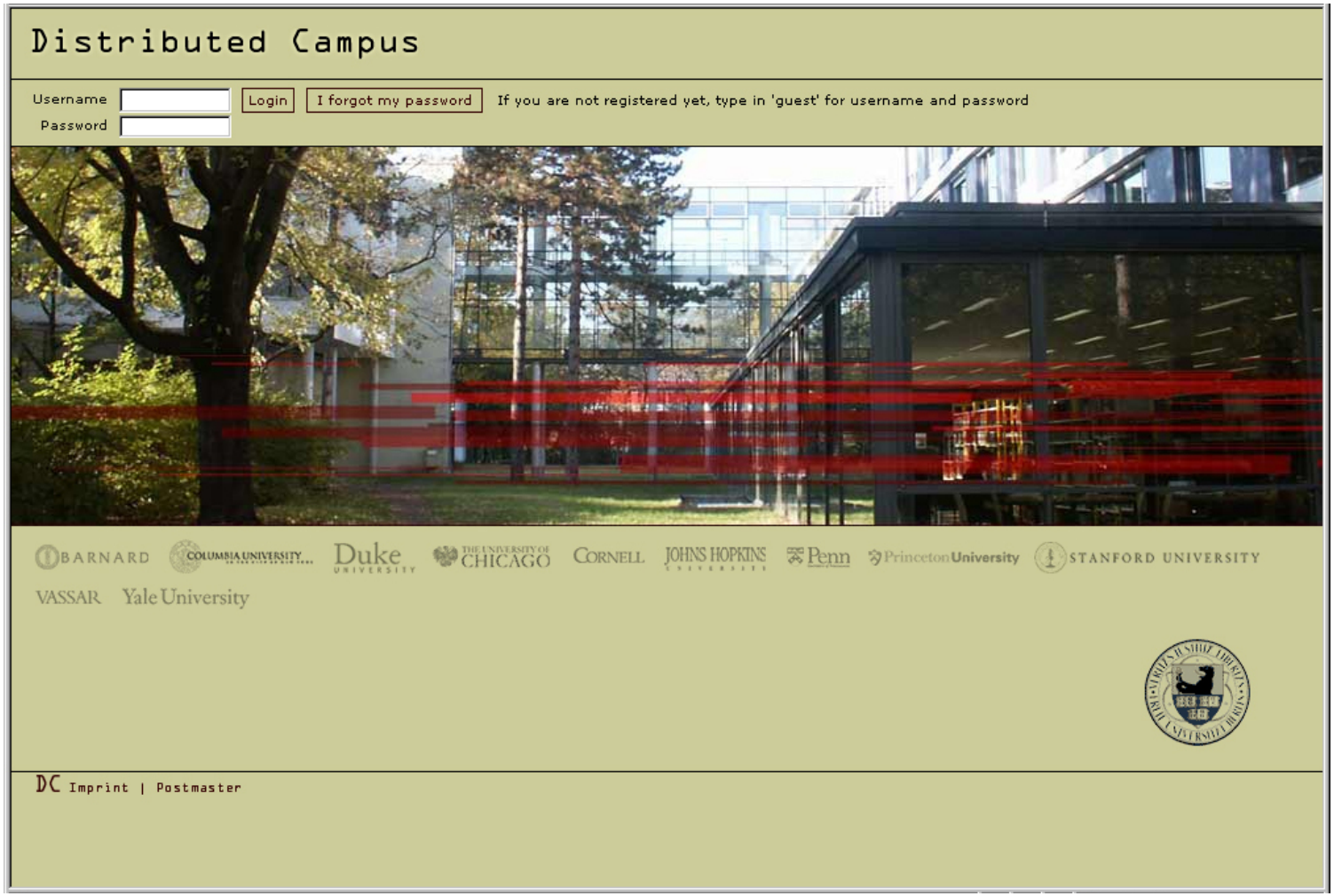


Outline IV

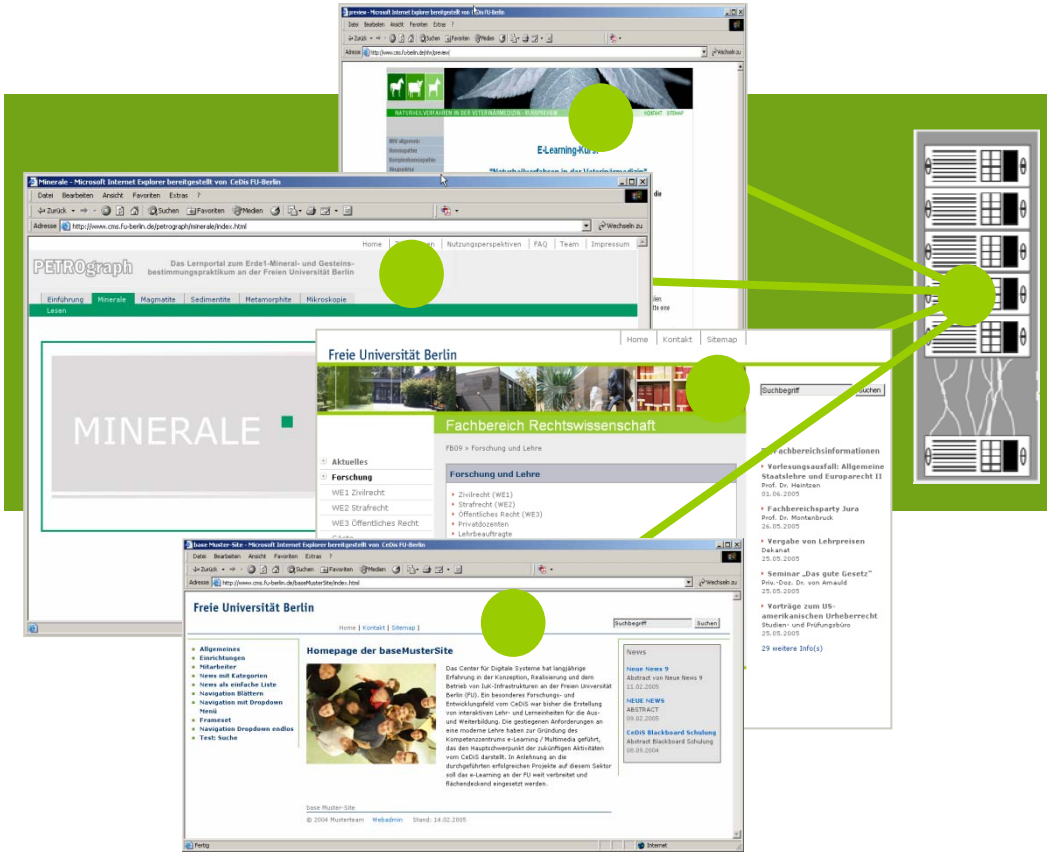
I. e-Learning as an experiment
II. e-Learning Engineering
III. e-Learning at a traditional University
IV. Coordinated action plan
V. The Web 2.0 Initiative
VI. Lessons learned
VII. Unresolved issues

Media & Design

Distributed Campus, Homepage



CeDiS – CMS

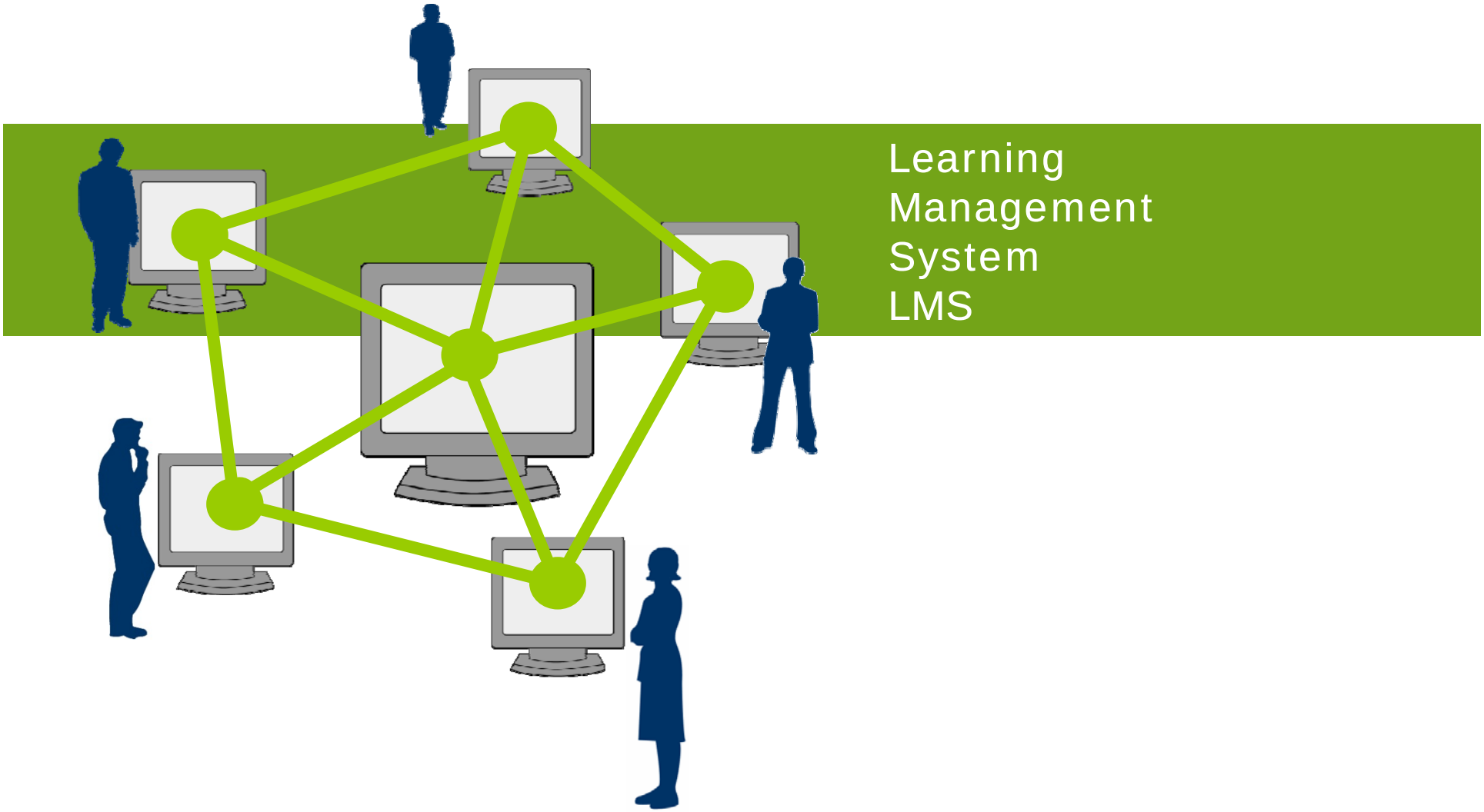


Content
Management
System
CMS

Visual History Archive (VHA)

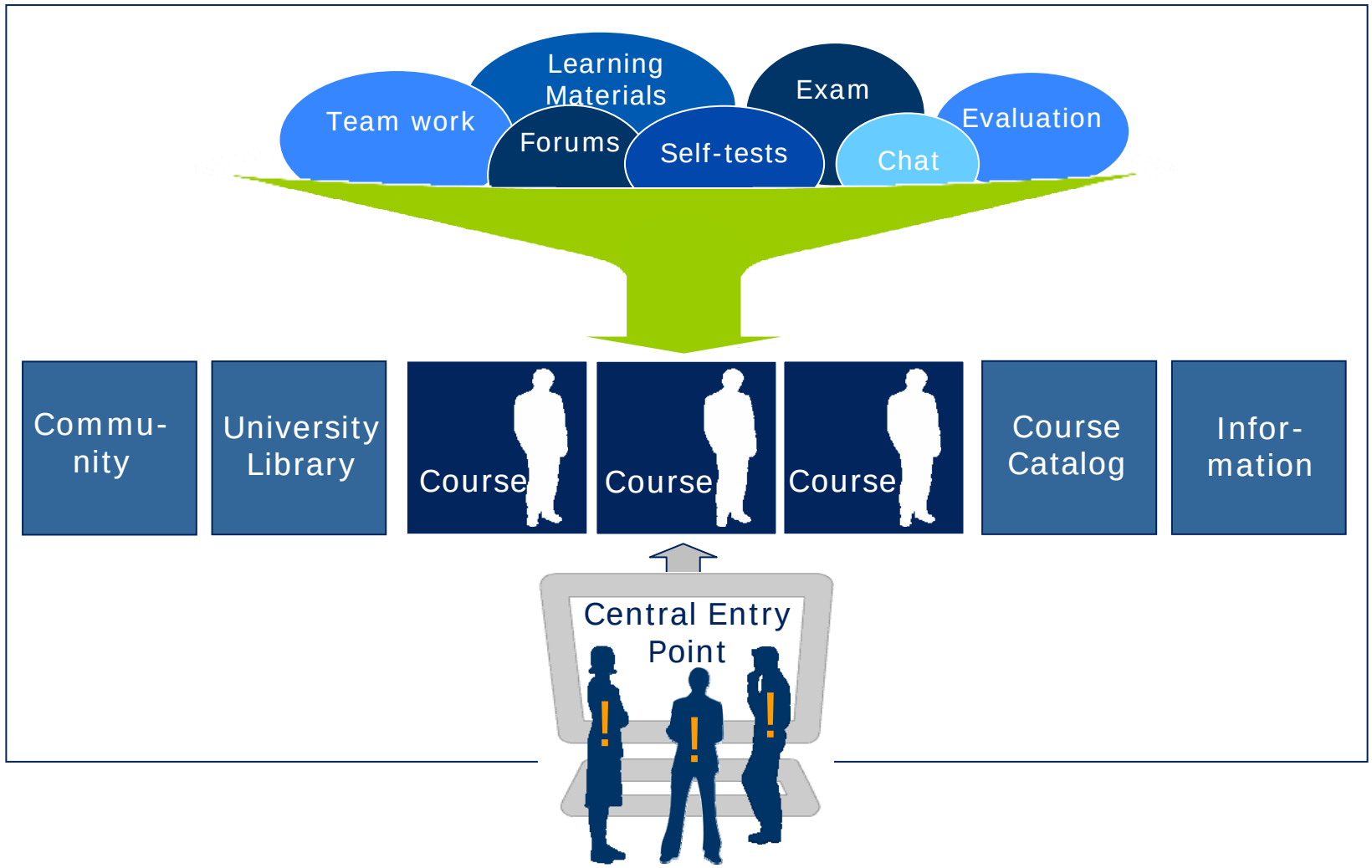
Video example

CeDiS - LMS



LMS – a Central Learning Platform for Teaching

Student Access to the Central LMS



Pro / Contra Blackboard LMS

strong points:

- ease-of-use for students and teachers (maybe except Content Collection)
- quite stable operation
- scalable architecture
- expandability (Building Blocks concept)
- large user community

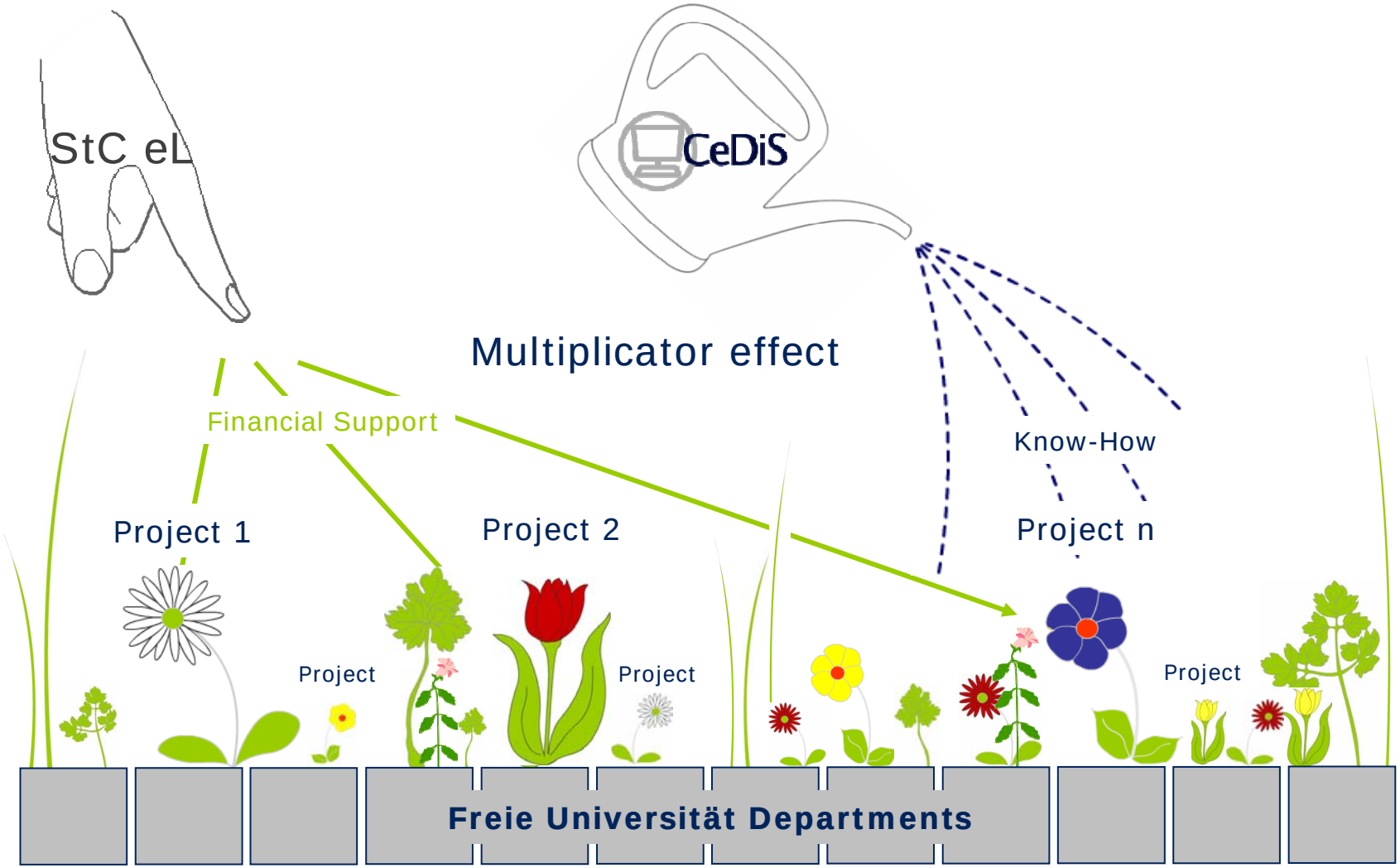
weak points:

- mainly instructor centered
- lack of tools for student participation / collaboration
- Poor technical documentation, proprietary API
- old UI techniques (no deep linking possible)
- lack of standard conformity e.g. SOAP, WSRP, JSR168
- lack of conformity with the German data protection laws

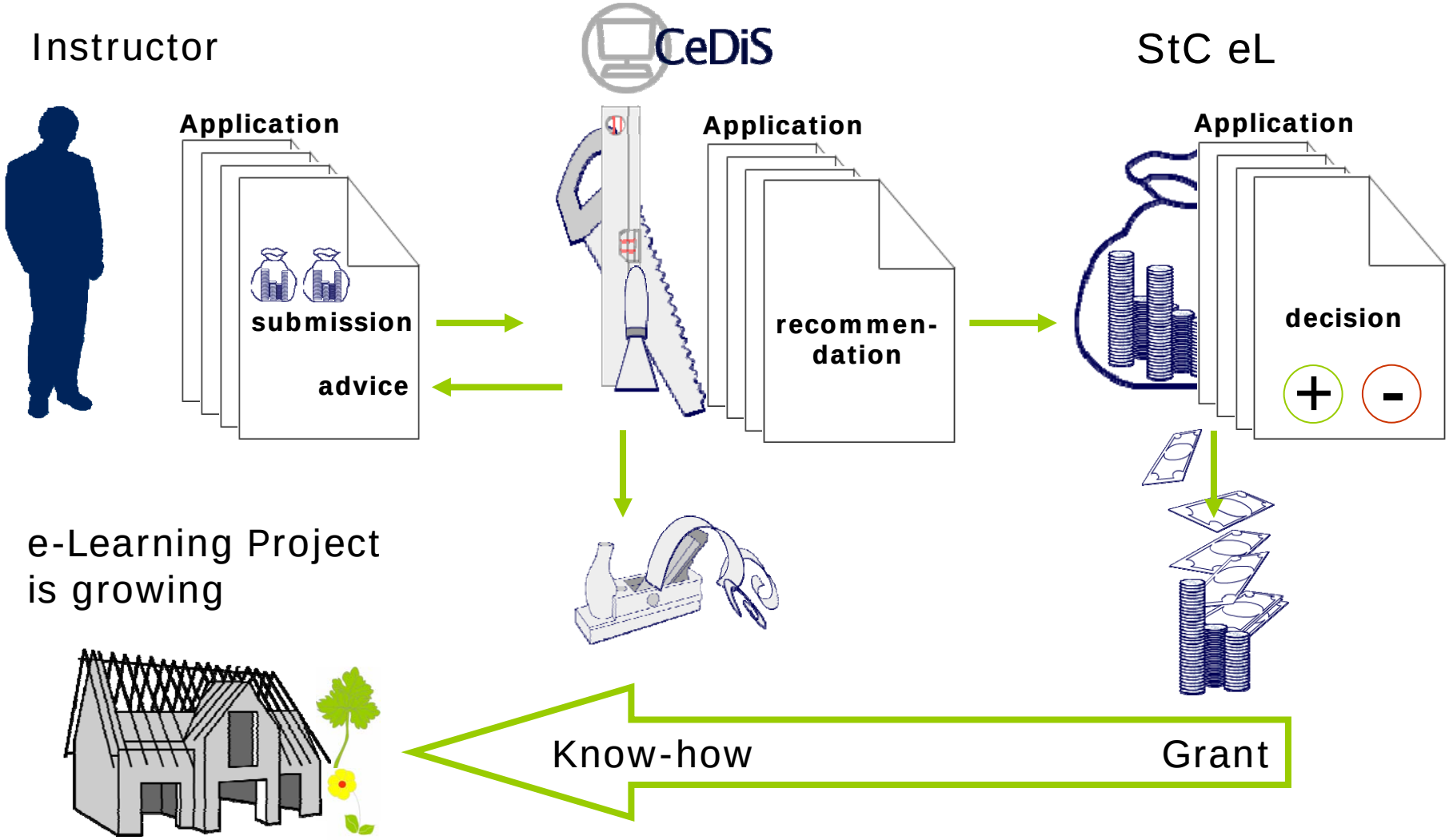
FU e-Learning Grants

powered by FUe-Learning

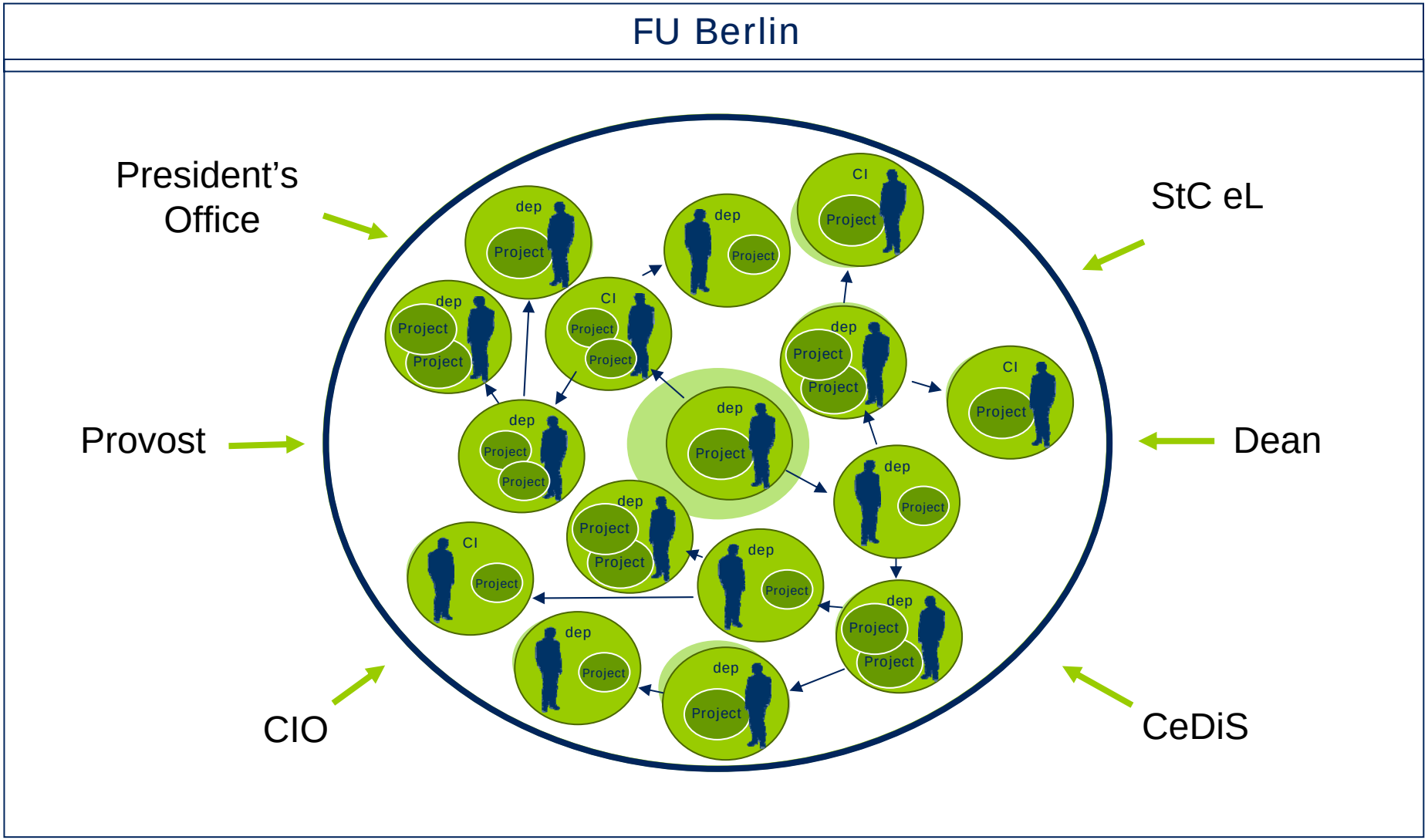
FU e-Learning Grants - Growth



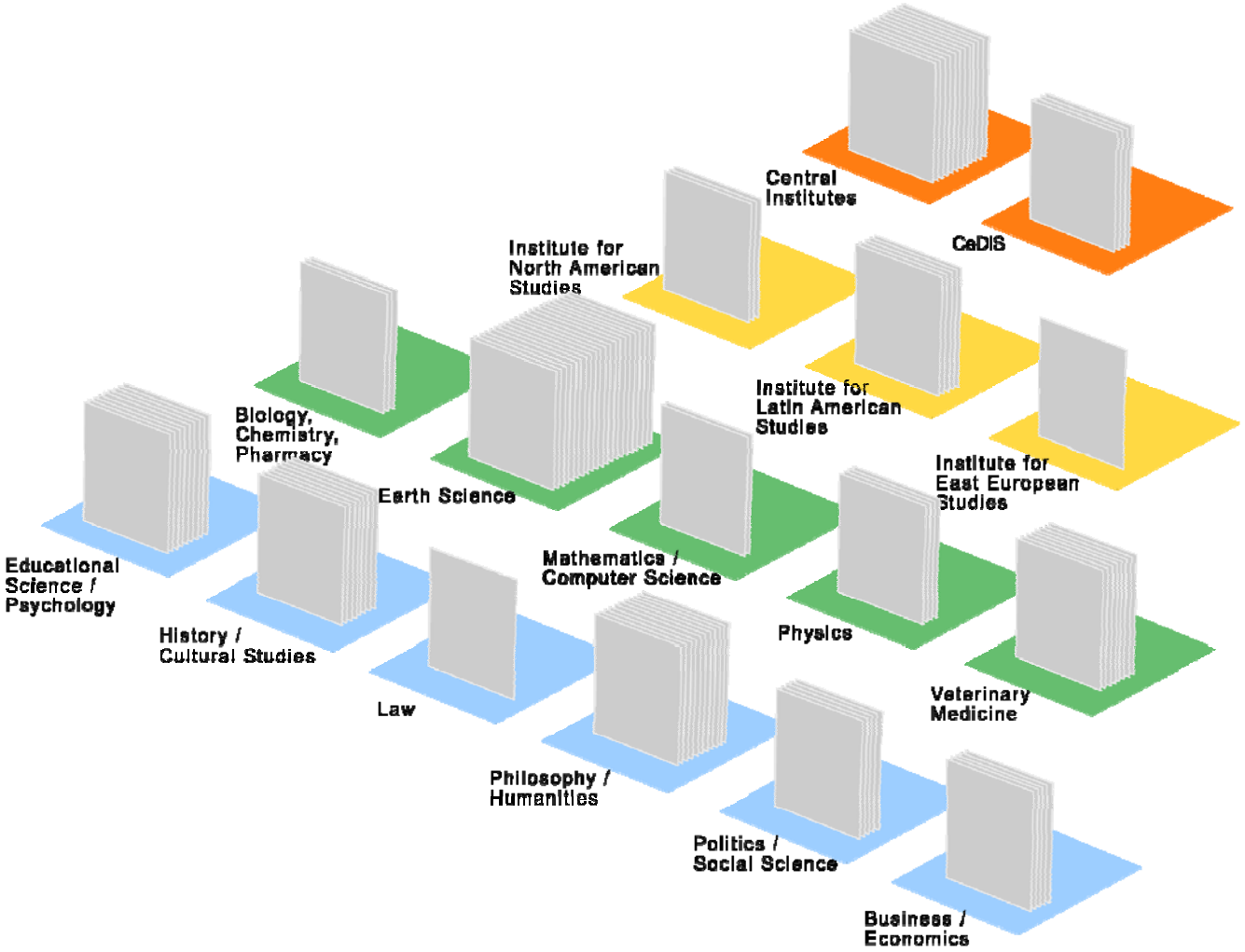
FU e-Learning Grant Program – Workflow



FU-wide e-Learning Dissemination



FU e-Learning Grants – Project Overview



E-Learning Projects

Knowledge Production of Latin-American Intellectuals

Digital Sources of Athropology of the Americas

Student foreign visits (study abroad)

Women and Gender in Latin America

Video example

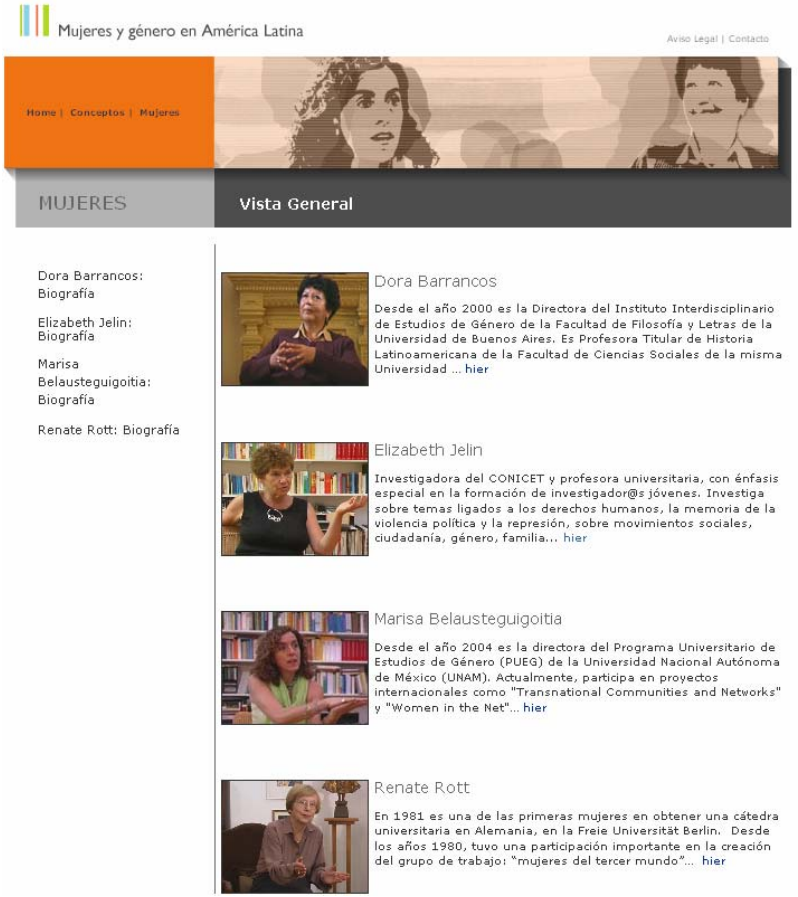
Video example

Concept for Interviewing

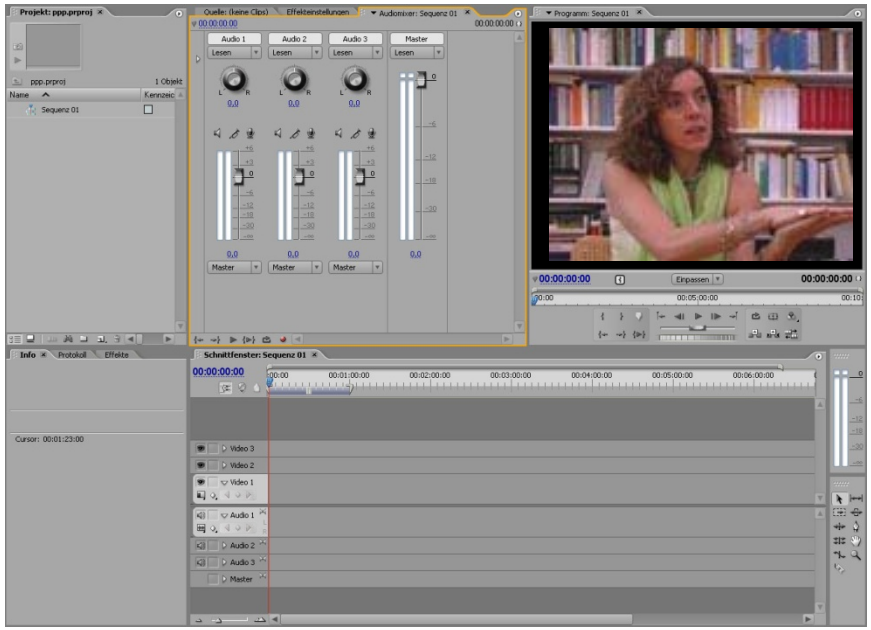
Im Seminar wurden die Porträts von vier herausragenden internationalen Wissenschaftlerinnen entwickelt: Dora Barrancos, Marisa Belausteguigoitia, Elizabeth Jelin, Renate Rott.

Es wurden Fragestellungen für die Interviewführung zu den zentralen Themen und Begriffen in den Arbeiten der Wissenschaftlerinnen erarbeitet.

Nach ihrer Durchführung wurden die Interviews geschnitten, transkribiert und mit Überschriften versehen.



Student‘s Experience



Medienkompetenz

Verankerung von Wissen und Praxis

Nachhaltigkeit des Wissens

Selbstverständlicher Bestandteil der Lehre

The project FUeL
(FU e-Learning)

FUeL – Key Issues

Establish Blended Learning in the Departments and Institutes

Integrate the Central Learning Management System within the FU IT-Infrastructure

Create a Central Student Portal

Reuse of e-Learning Materials (Learning Object Repository)

Provide Expertise on the Market

Departments

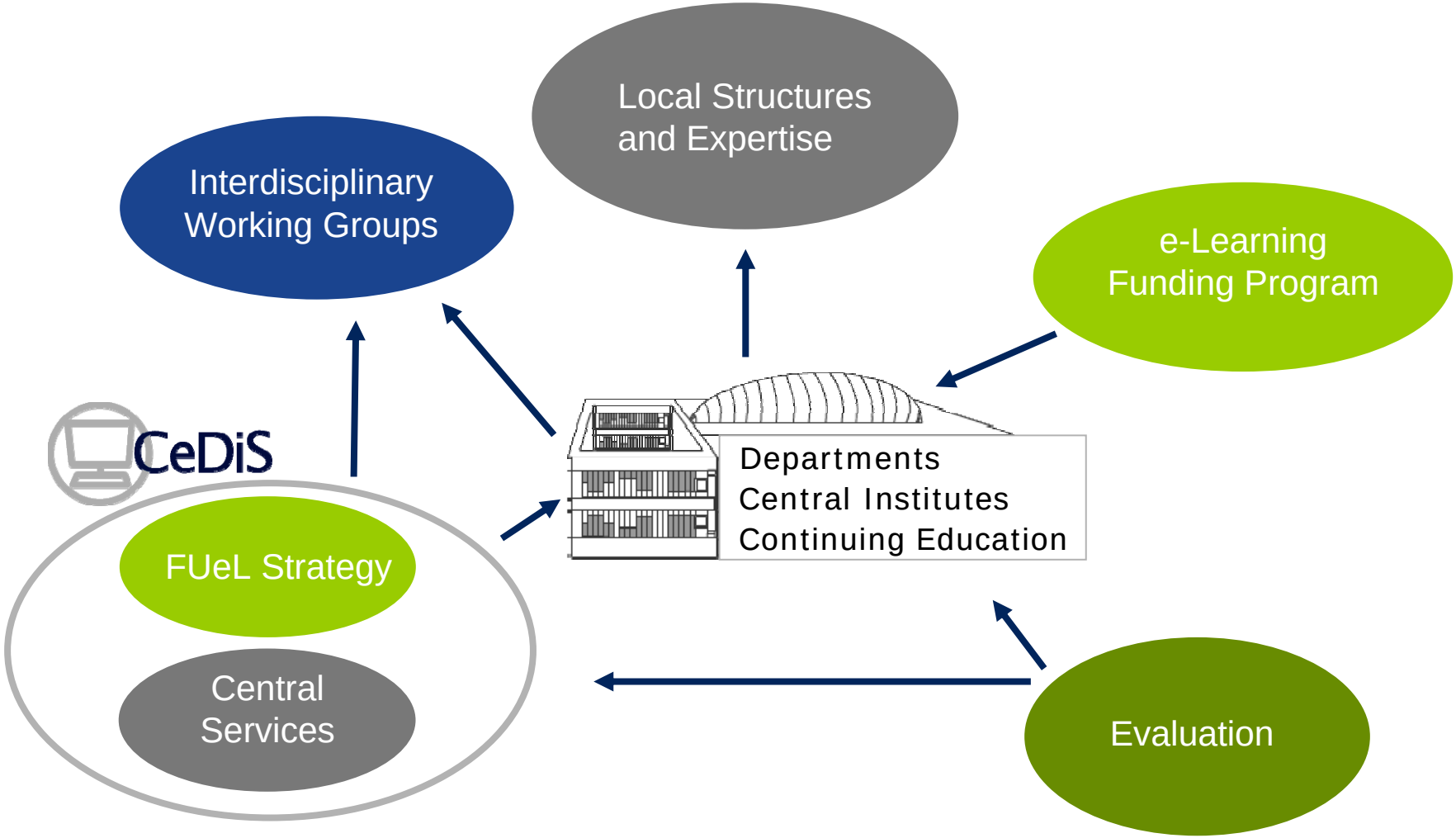
IT-Integration

Student-Portal

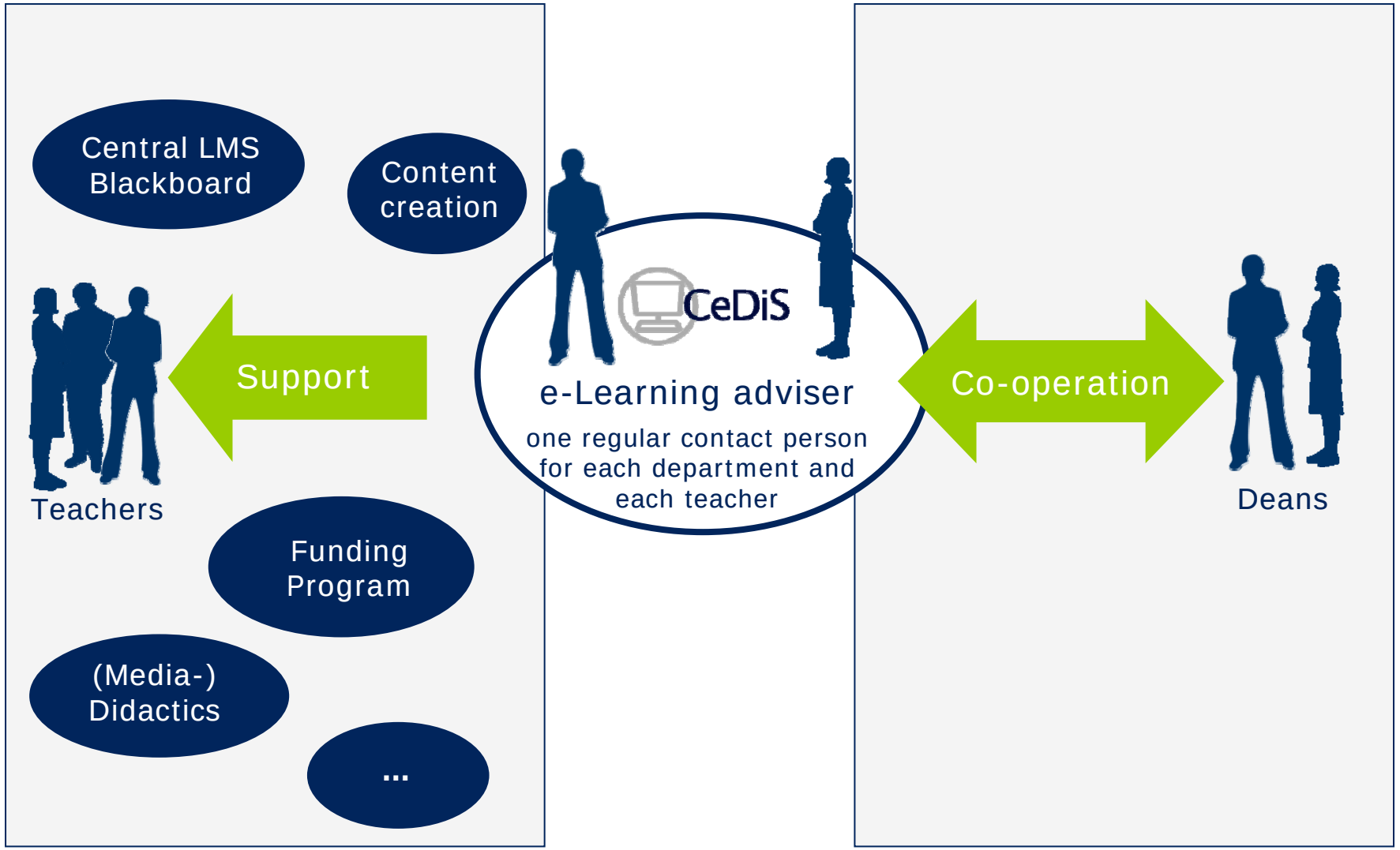
Materials

Marketing

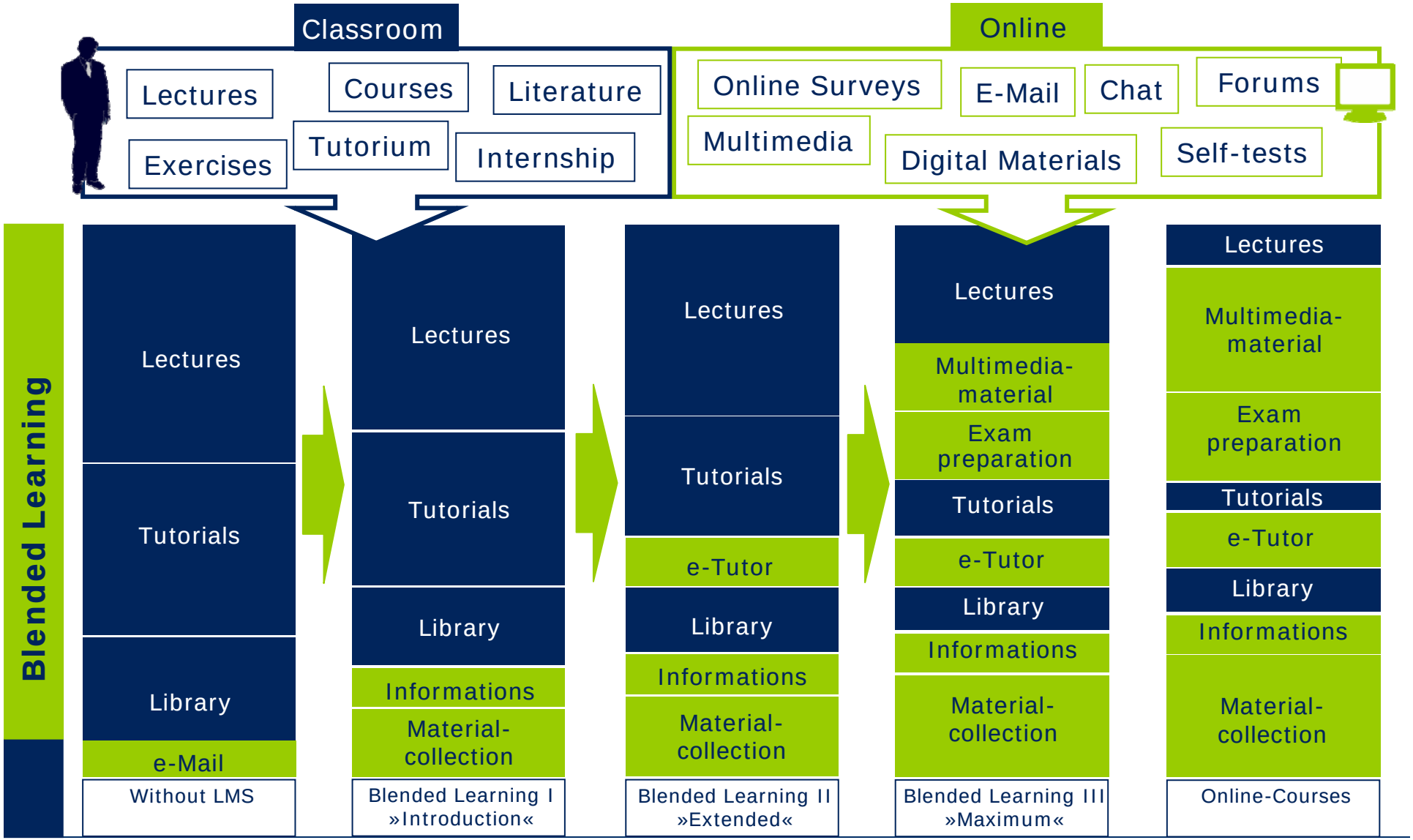
Establishing Blended Learning



e-Learning Consulting

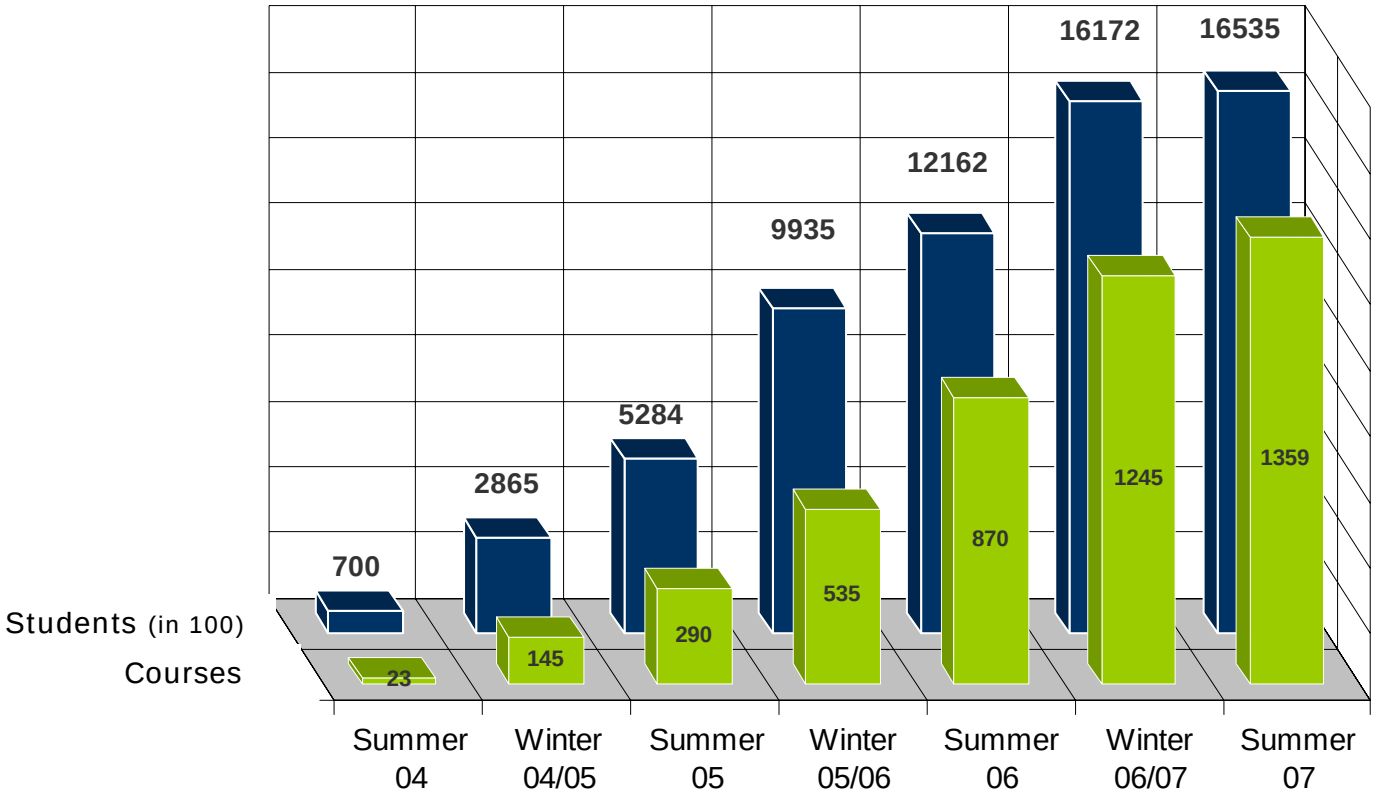


From the Traditional Classroom to Blended Learning



1.3 Bereich E-Learning

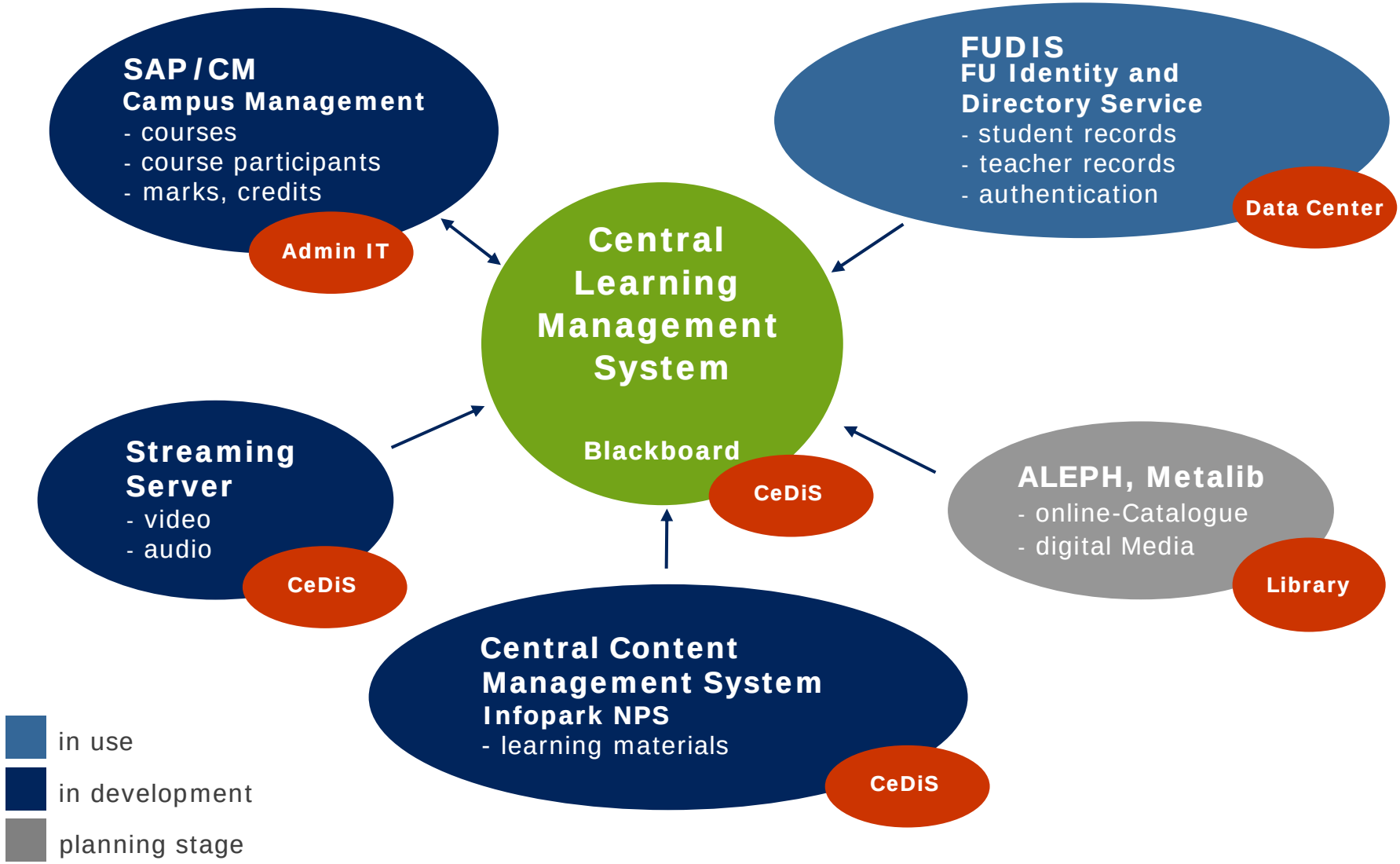
Degree of Utilization



IT-Integration

Integrating the Central LMS with the IT-Infrastructure of the FU Berlin

IT-Integration



Outline V

I. e-Learning as an experiment
II. e-Learning Engineering
III. e-Learning at a traditional University
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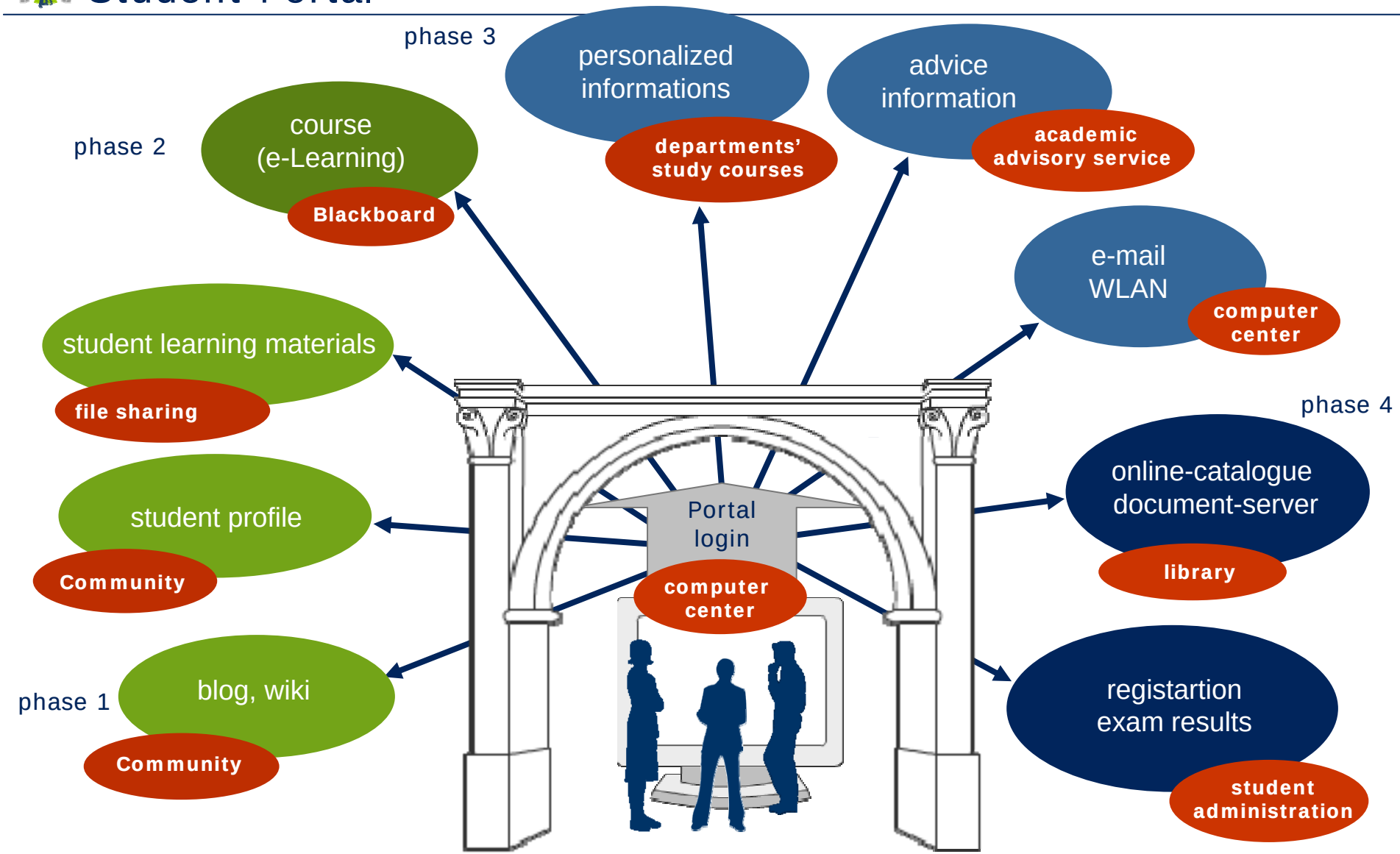
Student Portal

Personalized Information
and Services for Students

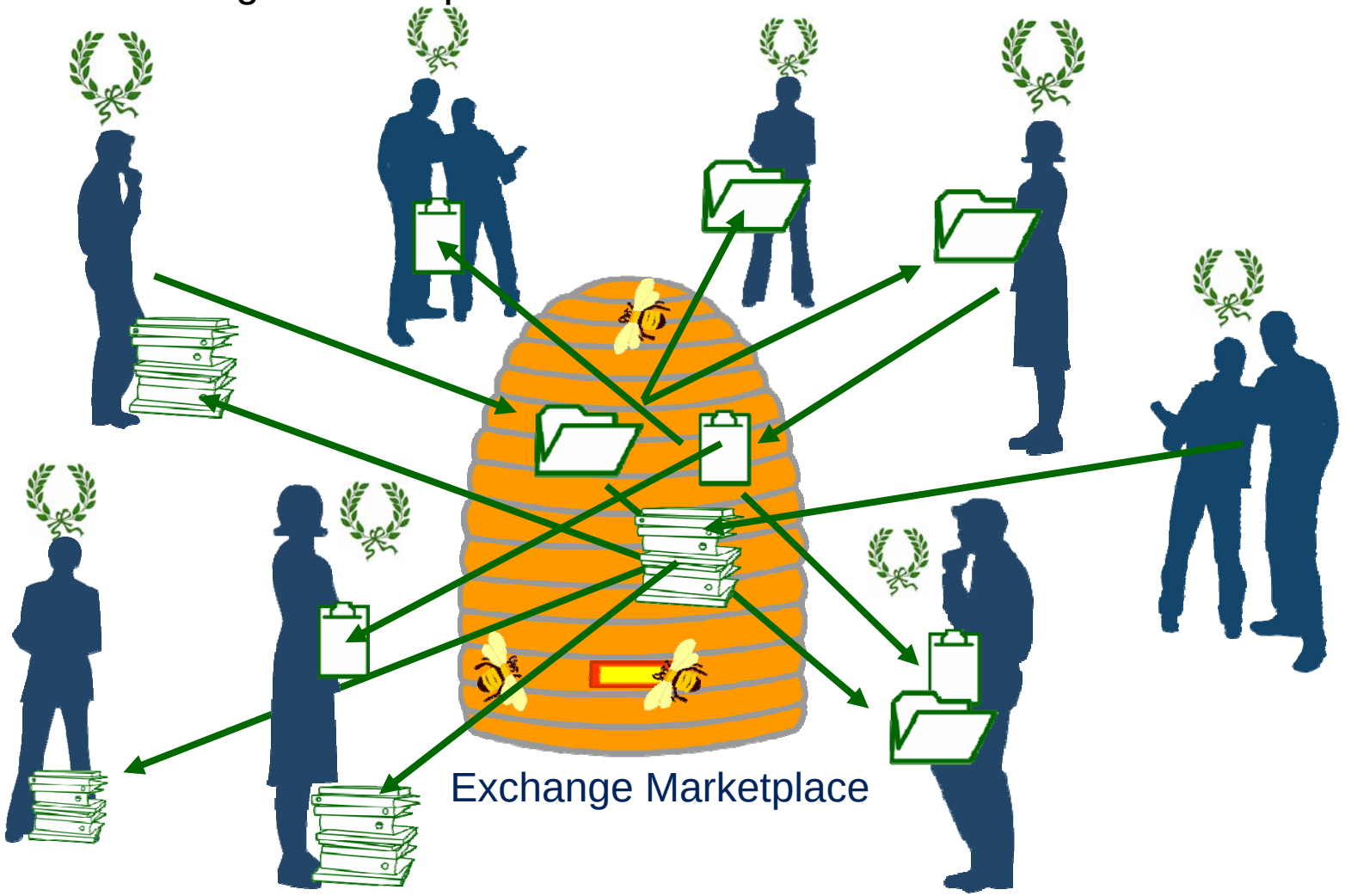
For Students...

Student-Portal



Student Portal

Material Exchange Marketplace



Student Portal: Realization

Involving the students

Online survey (11.12.06 – 15.01.07)

- Feedback: 1530 students, numerous free text field answers
- Introduction of a student portal is welcomed
- Integration of systems already in use is important
- Portal should support one‘s studies (“not a lifestyle portal”)
- Detailed evaluation taking place at the moment

Personal interviews (student representatives)

Beta testers

Phase 1: Basic functions

Blogs, Wikis (teaching and research)

Personal profile (interests and competence)

Exchange marketplace for students‘ learning materials

Search (Portal contents)

Going Public: Summer 2008

“Web 2.0” / Social Software

Social Software

Content produced by users
Low threshold / easy-to-use
The Web as workspace
User self-organization
Social networks
Linking of content and services

Blogs and Wikis in teaching

Simple creation of Web content by teachers and students
Supporting collaboration and communication
Discursive writing style
Peer-to-peer review
Working together on texts
Knowledge exchange through networking and linking up

“Web 2.0” / Social Software

CeDiS Blog Services

Blog availability

- personal blog for all FU members
- (multi-user) blog for Blackboard courses
- Selected System: WordPress

CeDiS Wiki, RSS Services

Wiki availability

- Wikis for all FU members
- Wikis for Blackboard courses
- Selected System: Confluence

RSS feeds

- Announcements from Blackboard courses

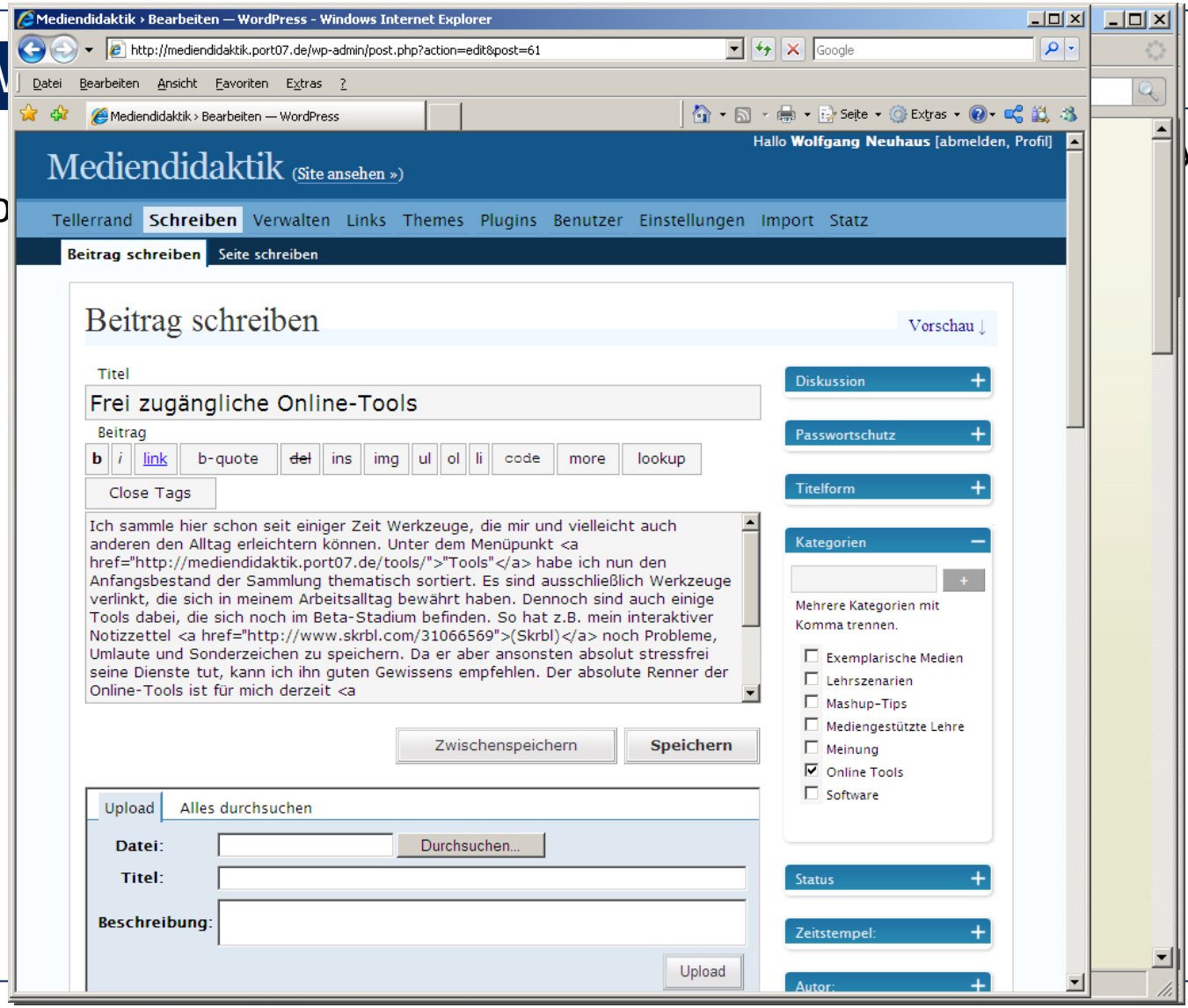
(Podcasts, Social Bookmarking, ...)

„Web 2.0“: Social Software

Blogs (W

Website

Used mo

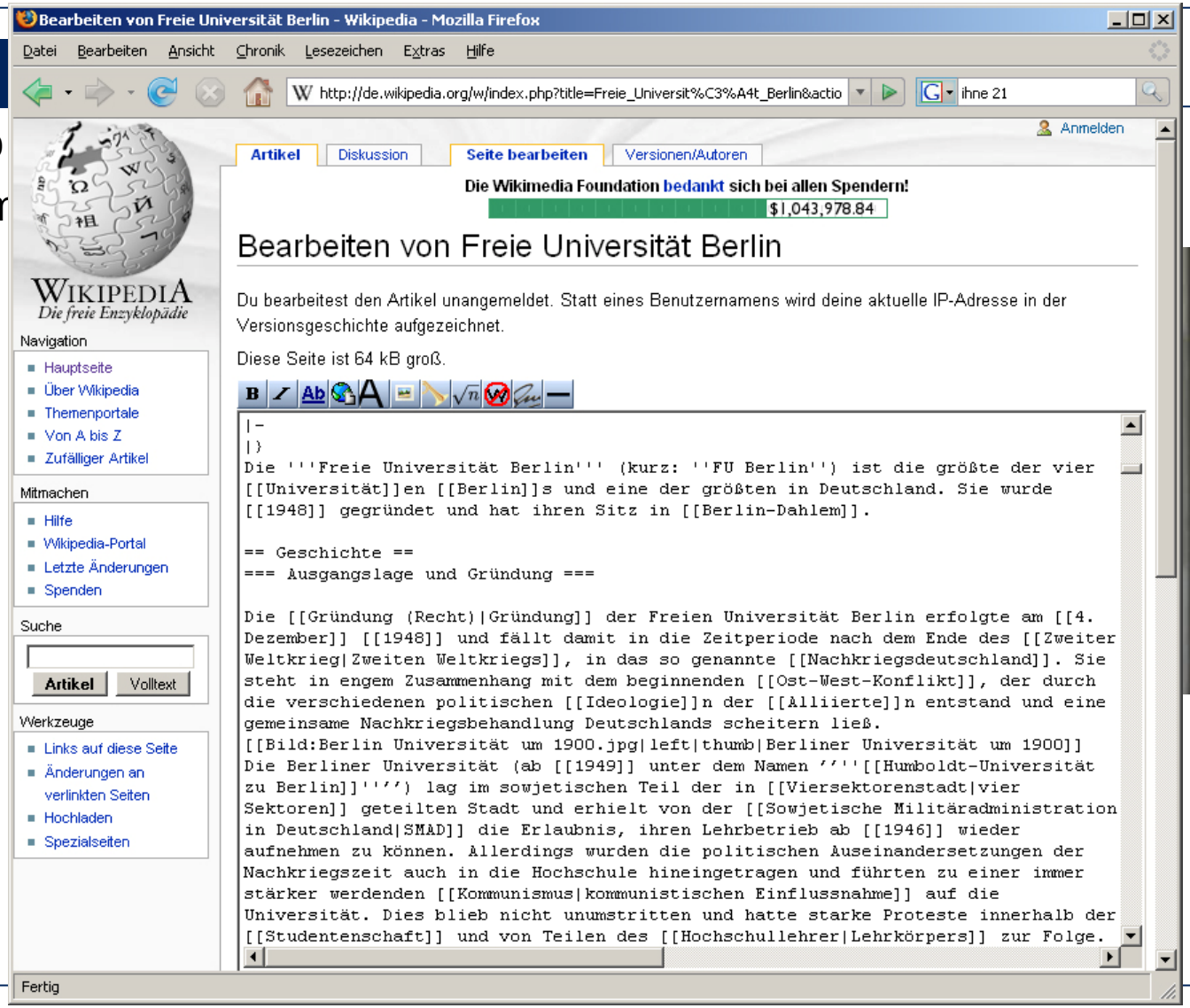


„Web 2.0“ / Social Software

Wikis

Collectio

Most fam



Outline VI

I. e-Learning as an experiment
II. e-Learning Engineering
III. e-Learning at a traditional University
IV. Coordinated action plan
V. The Web 2.0 Initiative
VI. Lessons learned
VII. Open issues

Digital Technology in Education: Involve…

- … »computer specific« features (storing, searching, calculating)
- … visualization techniques
- … media enriched contents
- … extensive use of tutorials & help functions
- … multiple navigation and tracking
- … instructor's »presence«
- … problem based approach
- … »real« AND virtual (i.e. hybrid) reality
- … extensive personalization
- … common sense intelligence (things that teach)?
- … user controlled privacy and security!

… »Create humane applications«

Digital Technology in Education: Avoid …

- … new incomplete systems
- … additional complexity
- … incompatible environments
- … slow responding applications
- … poor design
- … poor interaction
- … »surprising« features
- … »faked« security
- … poor personalization

e-Learning lessons – Summary

- e-Learning is a long-term project
- Executive support is necessary
- Competence Center
- Close cooperation with the departments
- Decentralize know how
- Stepwise Migration
- Offer grants and incentives
- Central LMS leads to high synergy effects
- Open content and commercial content helps saving costs
- Multimedia authoring is challenging
- Reuse of learning modules is …
- Reduce technical complexity (KIS)

Outline VII

I. e-Learning as an experiment
II. e-Learning Engineering
III. e-Learning at a traditional University
IV. Coordinated action plan
V. The Web 2.0 Initiative
VI. Lessons learned
VII. Open issues

Open Issues

1. Is learning with multimedia more effective?
2. How can we produce ‘aha’-effects?
3. Are there simple and good models of evaluation?
4. How to integrate the authority of the instructor?
5. Design reusable content modules
6. Exploit the use of games
7. High level authoring tools for multimedia learning modules?
8. How to build intelligent navigation systems?
9. How to create adaptive learning environments?
10. Are there such things as ‘learning-agents’ (»things that teach«)?

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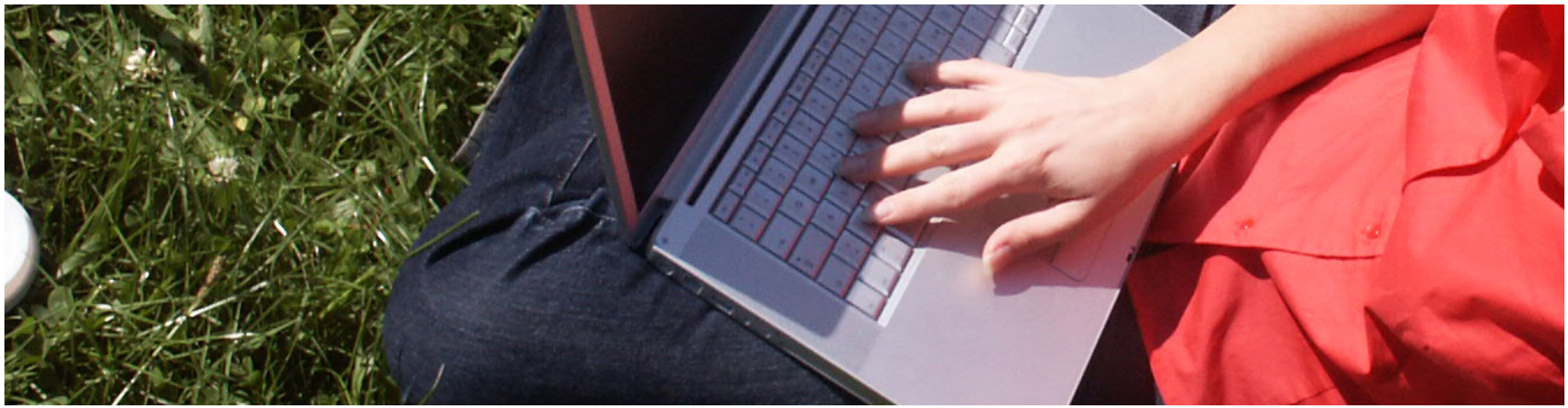

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