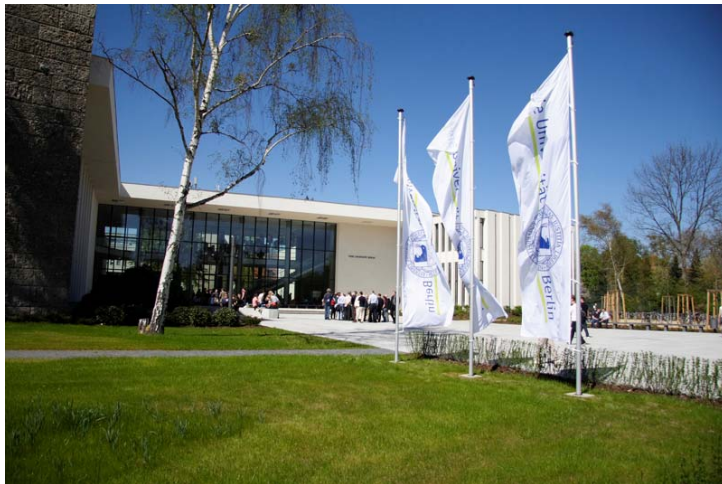


„E-Learning Support Structures in Traditional Universities“

Prof. Dr. N. Apostolopoulos
Center for Digital Systems

Freie Universität Berlin



Freie Universität Berlin: Facts & Figures




- **12** academic departments
- **157** bachelor's and master's degree programs
- **21** doctoral degree programs
- **29,000** students
- **2,662** academic staff
- **302,2** mil. € annual operating budget
- **112** mil. € annual funding

Institute for Latin American Studies




Institute for Latin American Studies, Homepage


Freie Universität  Berlin

[Home](#) | [Deutsch](#) | [Español](#) | [Português](#) | [Contact](#) | [Imprint](#)


[Institute](#) | [E-Learning](#) | [Academics](#) | [Research](#) | [Service](#)



Institute for Latin American Studies



Lateinamerika Institut
Instituto de Estudios Latinoamericanos
Instituto de Estudos Latino Americanos



About Learning and Technologies

What is
TEL?



A phone?

About Learning and Technologies

What is
TEL?



A Telecom Company?

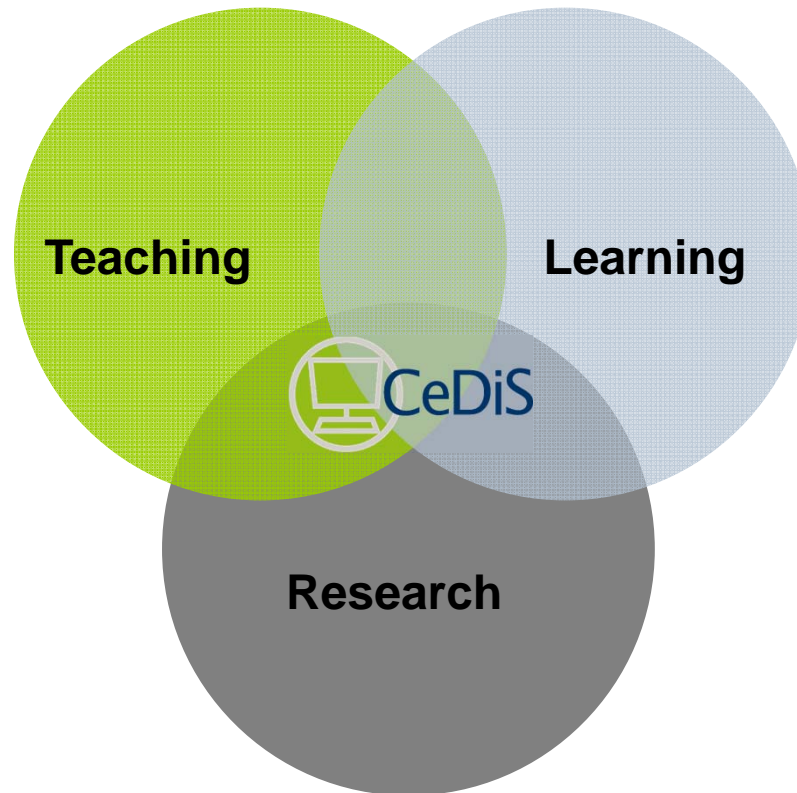
About Learning and Technologies

What is
TEL?



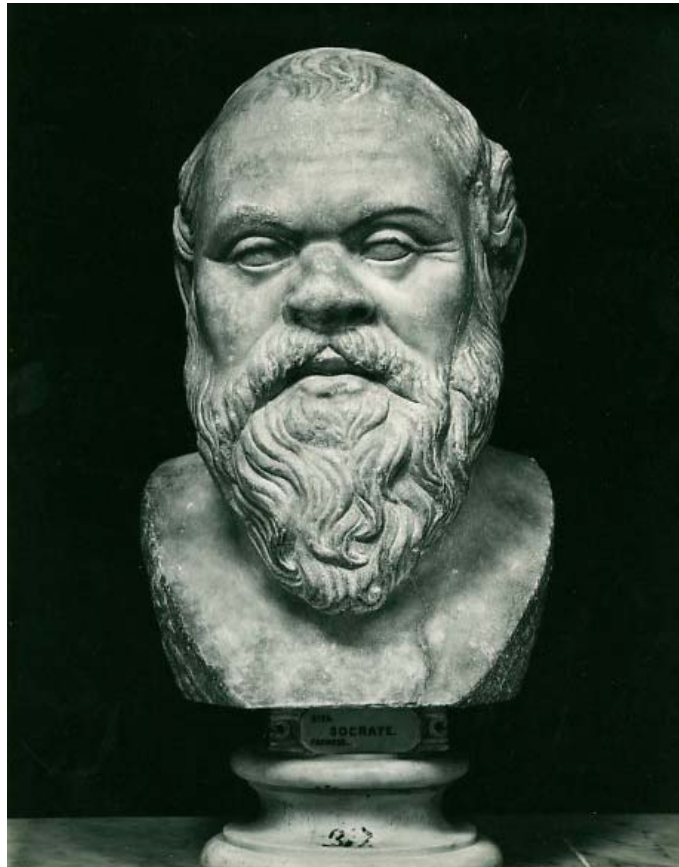
An acronym for
„Technology-Enhanced
Learning“?

Excellence at Universities



Gerhard Casper, former President of Stanford University

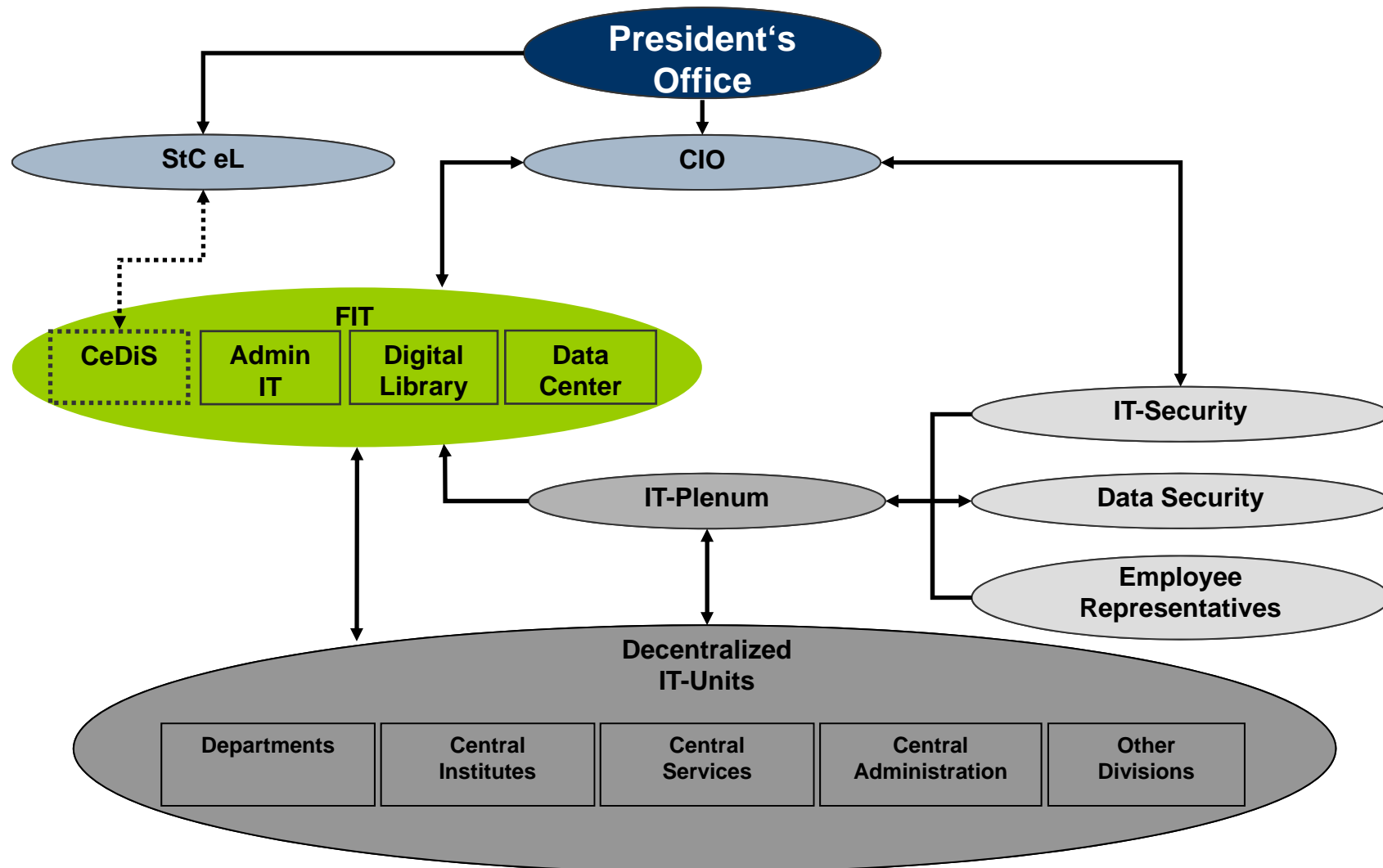
About Lifelong Learning ...



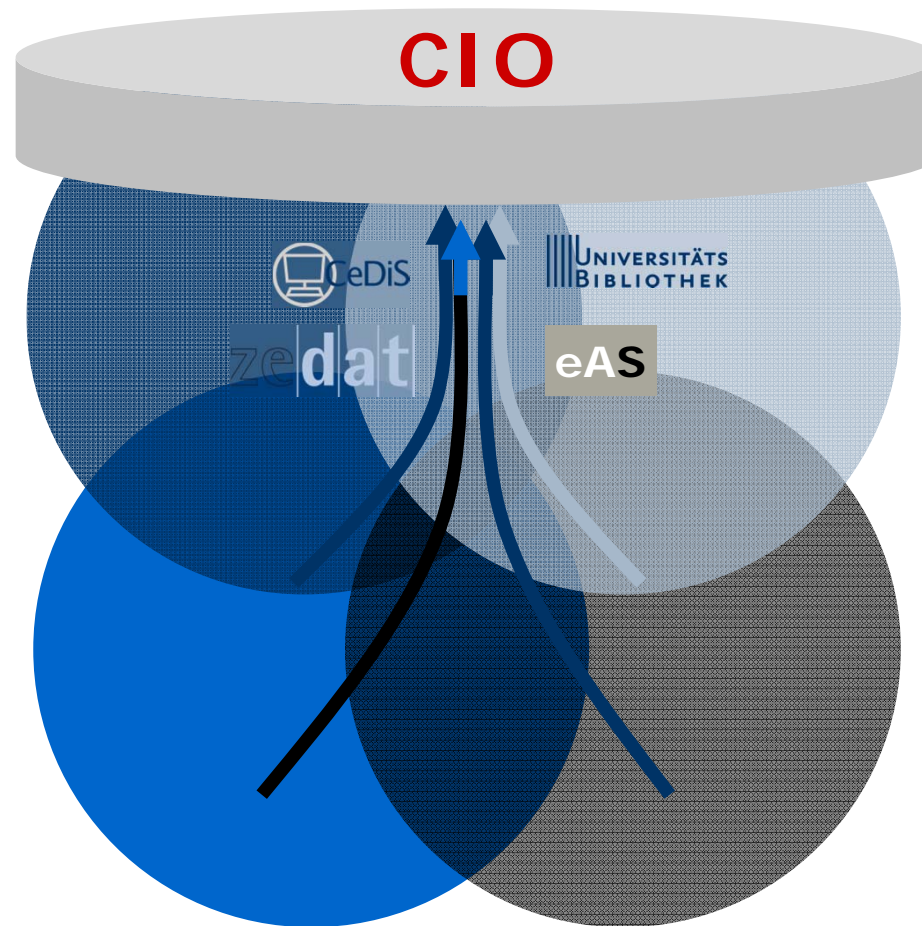
ΓΗΡΑΣΚΩ ΑΕΙ ΔΙΔΑΣΚΟΜΕΝΟΣ

ΣΟΚΡΑΤΗΣ
470-399 π.Χ.

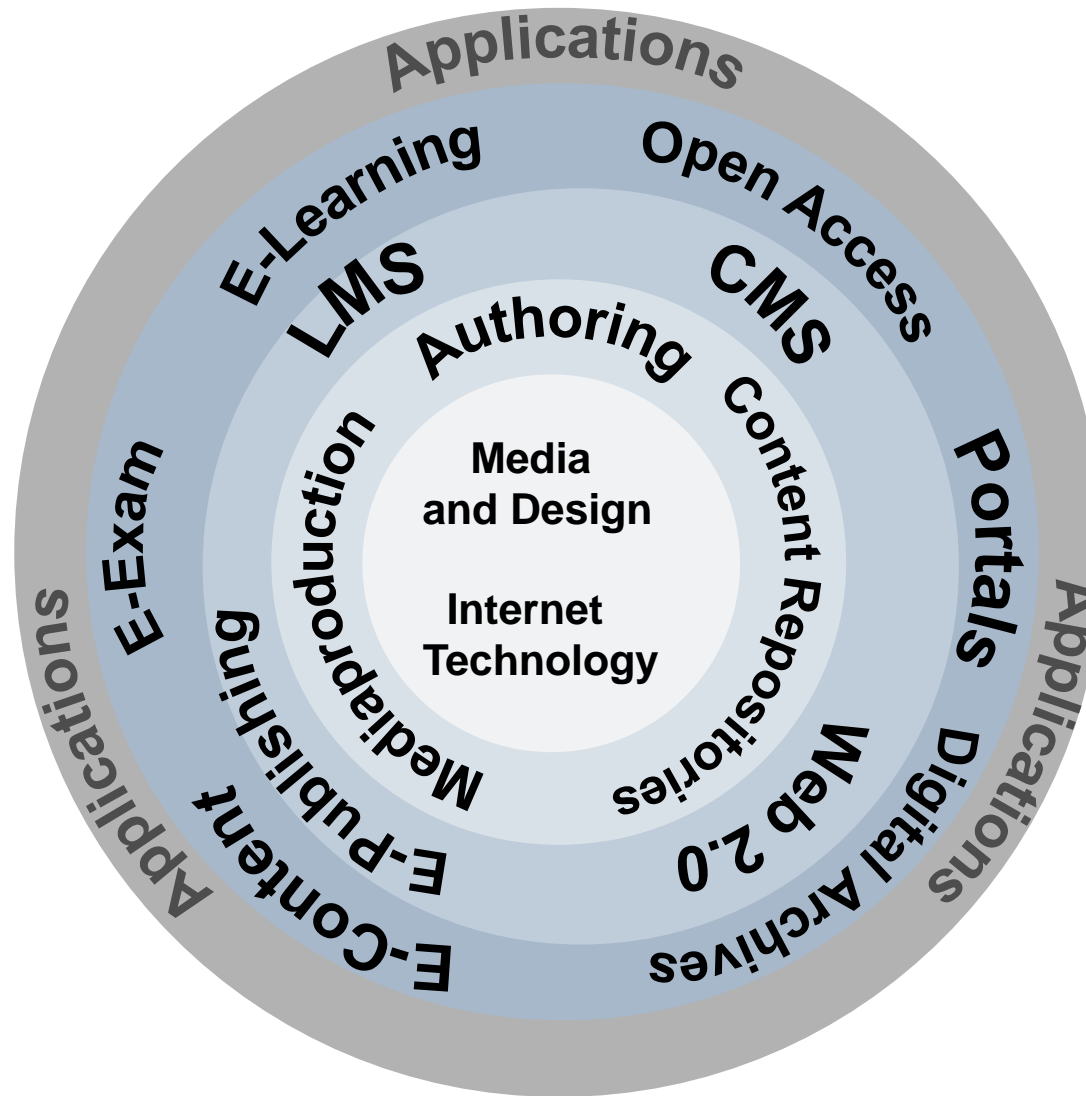
FIT: IT at Freie Universität



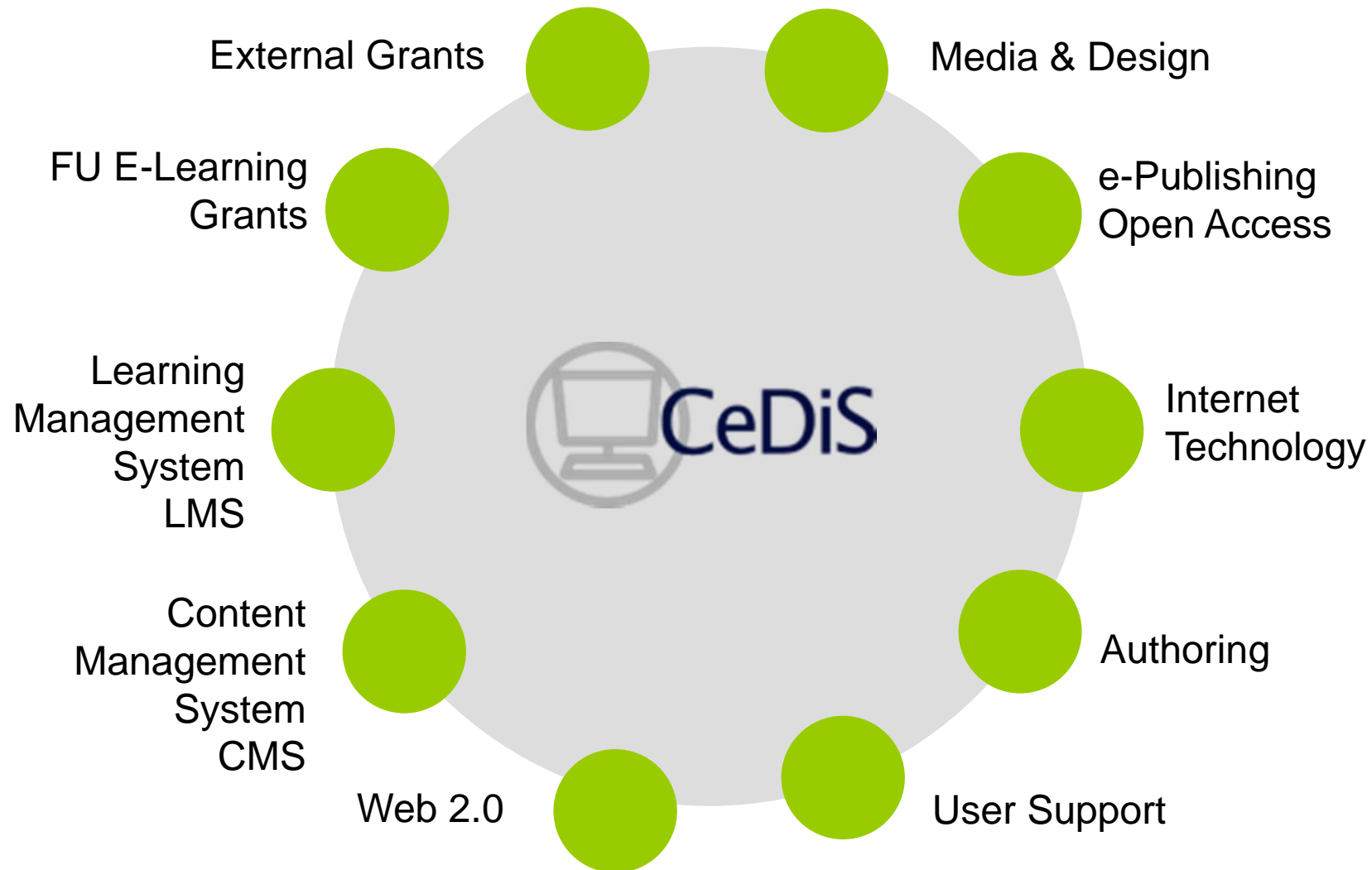
FIT Strategic Alliance



CeDiS – Structure



CeDiS – Teams



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)!«



E-Learning / E-Teaching

Consulting, Support & Quality Management

- CeDiS provides the central online learning platform Blackboard (ca. **28.500** students and **2.500** courses, winter semester 2013/14)
- Consulting, conception and realization of Blended Learning courses
- MOOC vs. MOC
- Training and support for teaching staff and tutors
- E-Examinations
- E-Learning Grants Program

CeDiS offer integrated E-Learning solutions

- Charité
- Evangelische Hochschule Berlin

SUPPORT – Teaching Quality Initiative



- *inFU* Days
- Mentors / Coaching
- Support for starting phase of studies

- E-Learning 2.0
- E-Examinations
- Audio and Video
- Mobile Learning
- OSA

- Training for new teaching staff
- Qualification for mentors
- Teaching education

- Part of the project „LEON“ with the SUPPORT-project
- Financially supported by the German Federal Ministry of Education and Research
- Third party funding for „LEON“: **4.354.703 €**

GEFÖRDERT VOM

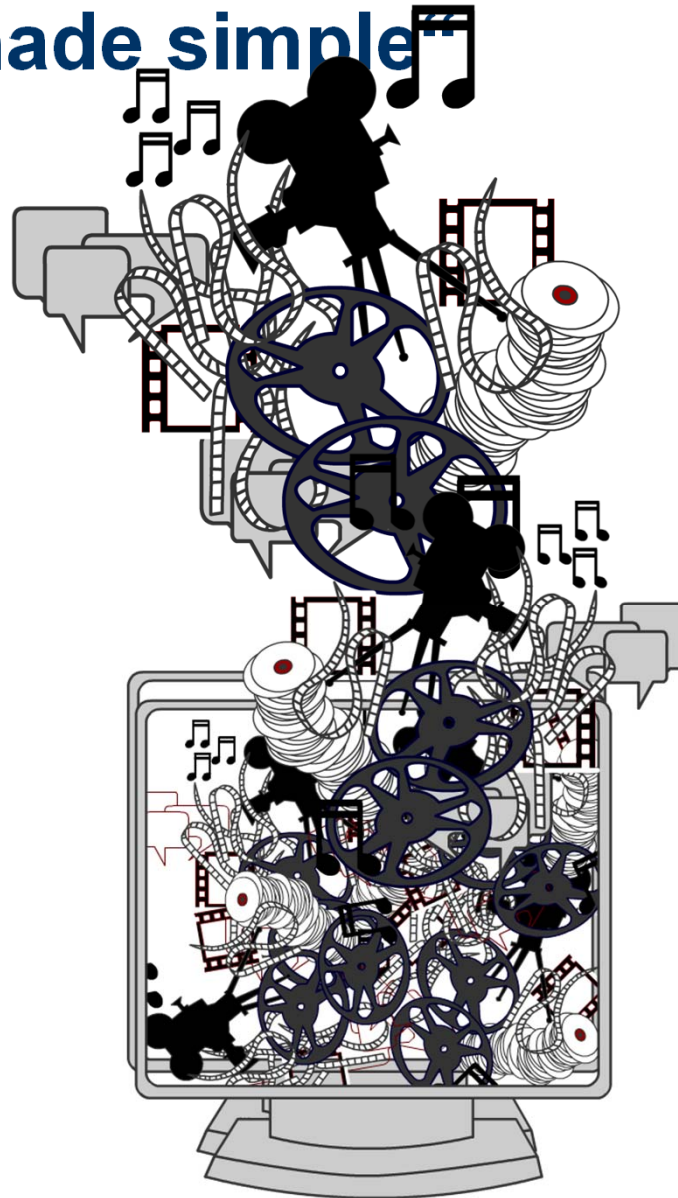


Bundesministerium
für Bildung
und Forschung

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”

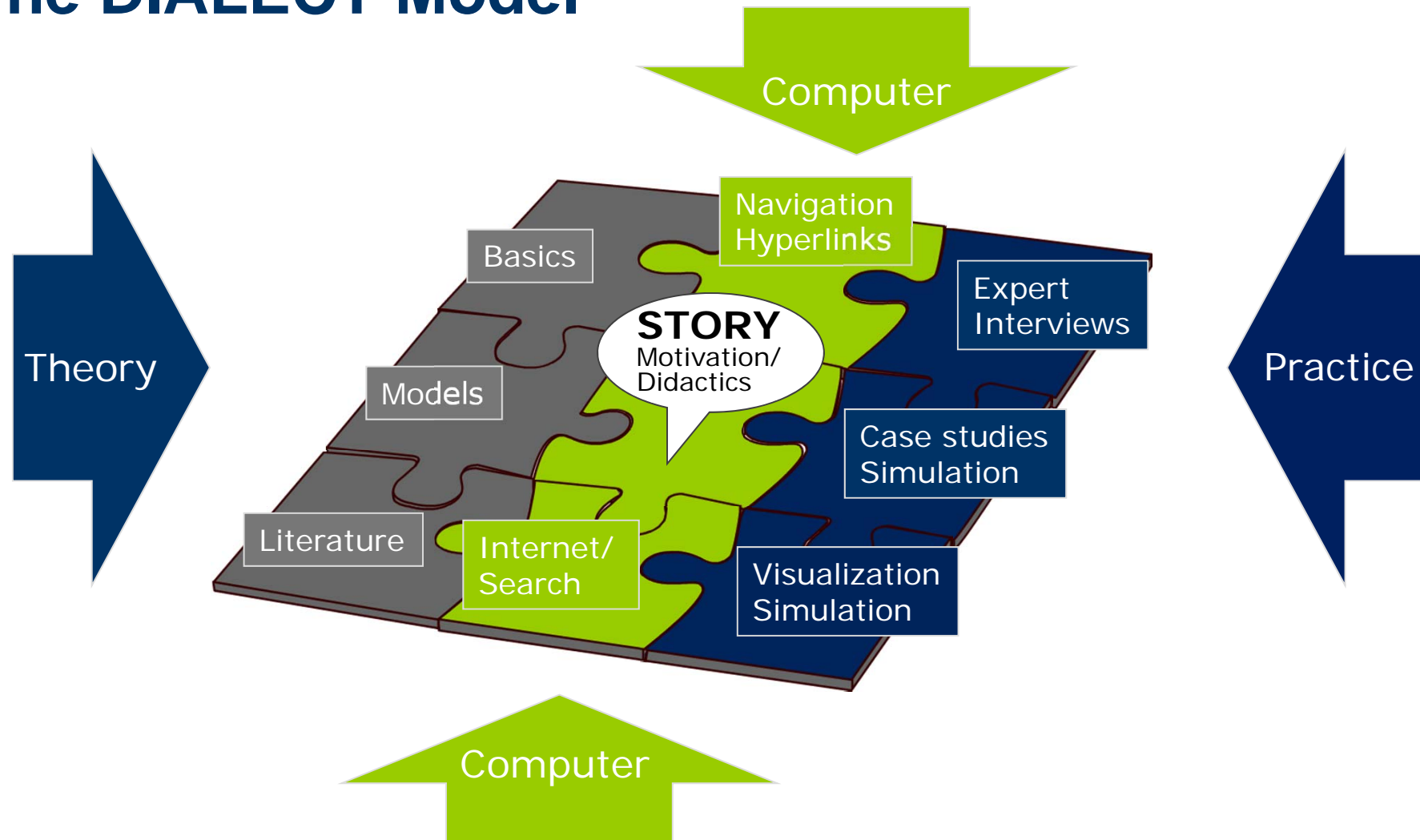


Fundamental Decisions for Multimedia Learning Applications

- 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

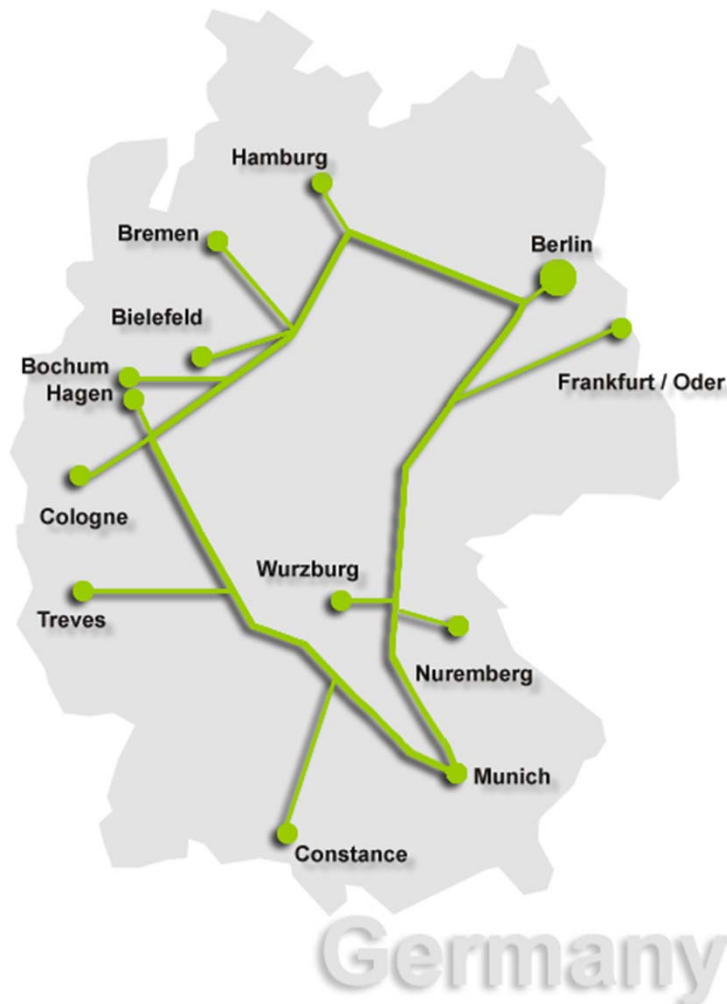


Outline II

- 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

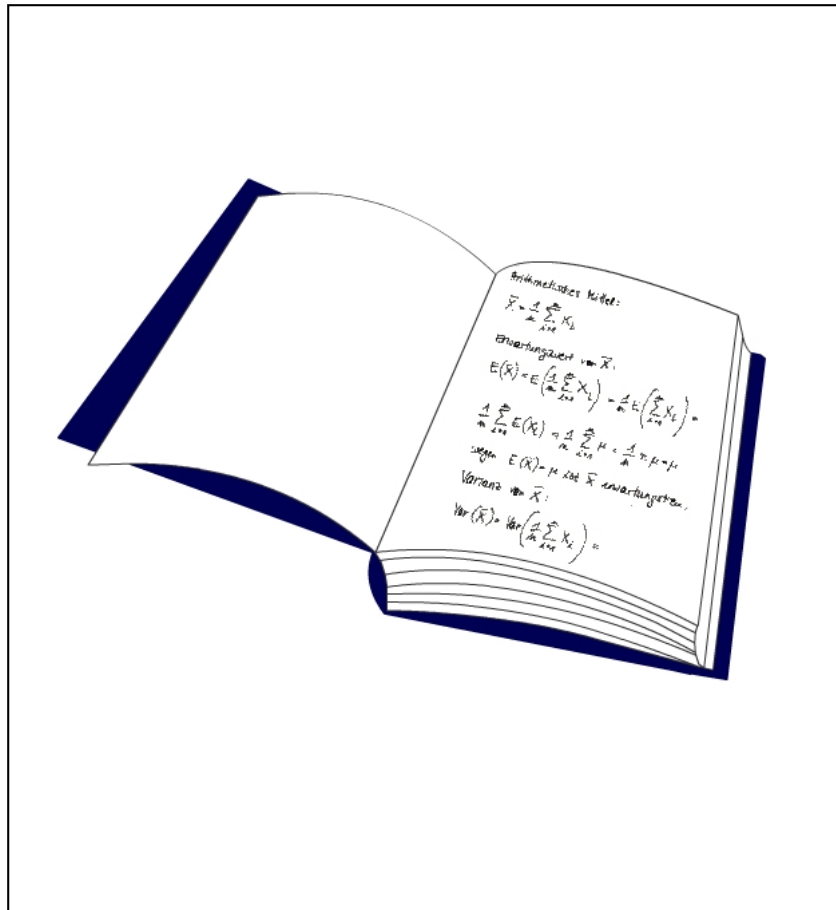
BMBF Project New Statistics

13 Departments at 10 German Universities

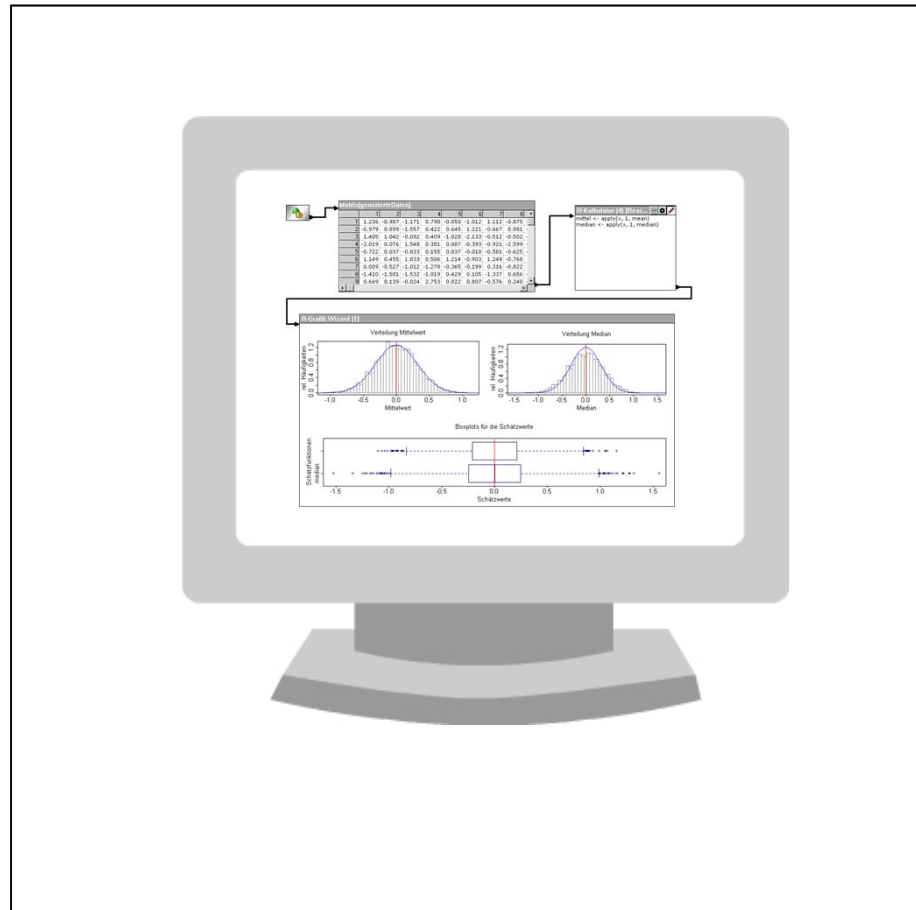


- European-University Viadrina Frankfurt/Oder
- University of Applied Sciences Cologne
- University Hagen
- Freie Universität Berlin
- Friedrich-Alexander University Erlangen-Nuremberg
- Humboldt University Berlin
- University of Bielefeld
- University of Bremen
- University of Hamburg
- University of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

„Traditional“ versus „New Statistics“

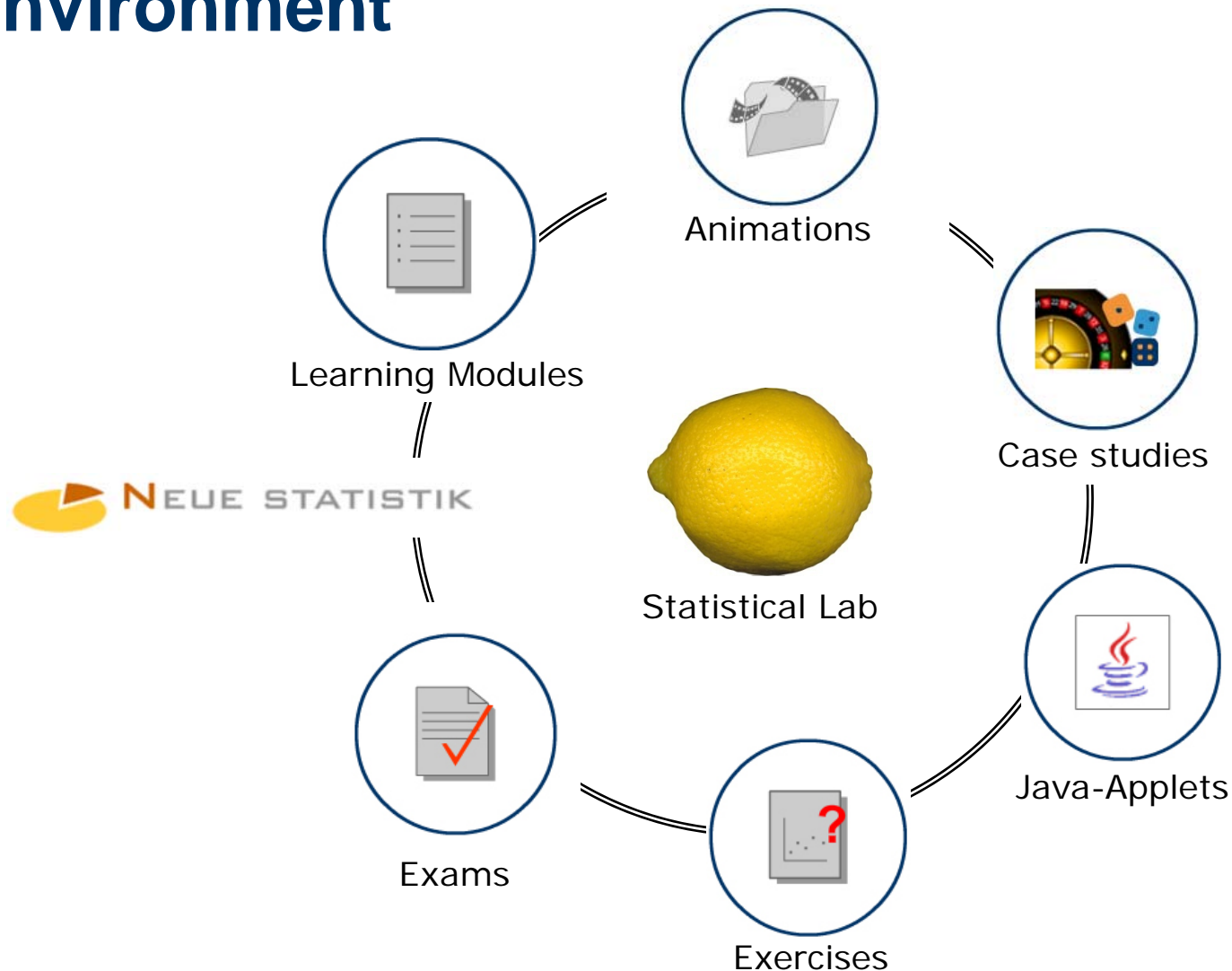


Statistics: yesterday and today



Statistics: today and tomorrow

New Statistics: Multimedia Learning Environment



Statistical Lab (www.statistical-lab.org)

Bikini* - Statistik-Labor

Datei Bearbeiten Projekt Einfügen Ansicht Hilfe

Texteditor [Aufgabenstellung] [Bearbeiten]

Der folgende Datensatz enthält die monatlichen Umsatzzahlen ausgewählter Produktgruppen eines Bekleidungseinzelhändlers sowie die durchschnittlichen Temperaturen der entsprechenden Monate.

Stellen Sie die Umsatzzahlen sowie den Temperaturverlauf grafisch dar; Besteht ein Zusammenhang zwischen Temperatur und den entsprechenden Umsatzzahlen?

Datensatz[D30]

| | Monat | Temperatur | Bikinis | Handschuhe |
|---|---------|------------|---------|------------|
| 1 | Januar | 5.000 | 87 | 1332 |
| 2 | Februar | 9.000 | 118 | 1311 |
| 3 | März | 14.000 | 450 | 854 |
| 4 | April | 16.000 | 652 | 564 |
| 5 | Mai | 21.000 | 785 | 255 |
| 6 | Juni | 23.000 | 914 | 133 |
| 7 | Juli | 24.000 | 988 | 137 |

R-Grafik Wizard [1]

Temperatur

Umsatz Handschuhe

Umsatz Bikinis

R-Grafik Wizard [2]

Bikinis gegen Temperatur

Handschuhe gegen Temperatur

Wizard für die Berichterstellung

Formatierung Objektauswahl

MS Sans Serif 14 B I U

Statistischer Bericht

Gegeben war folgender Datensatz:

D30
Daten
D30

Die Daten wurden ausgewertet und in den folgenden Diagrammen visualisiert:

1
Bitmap

Die Abhängigkeiten wurden in den folgenden Streudiagrammen dargestellt:

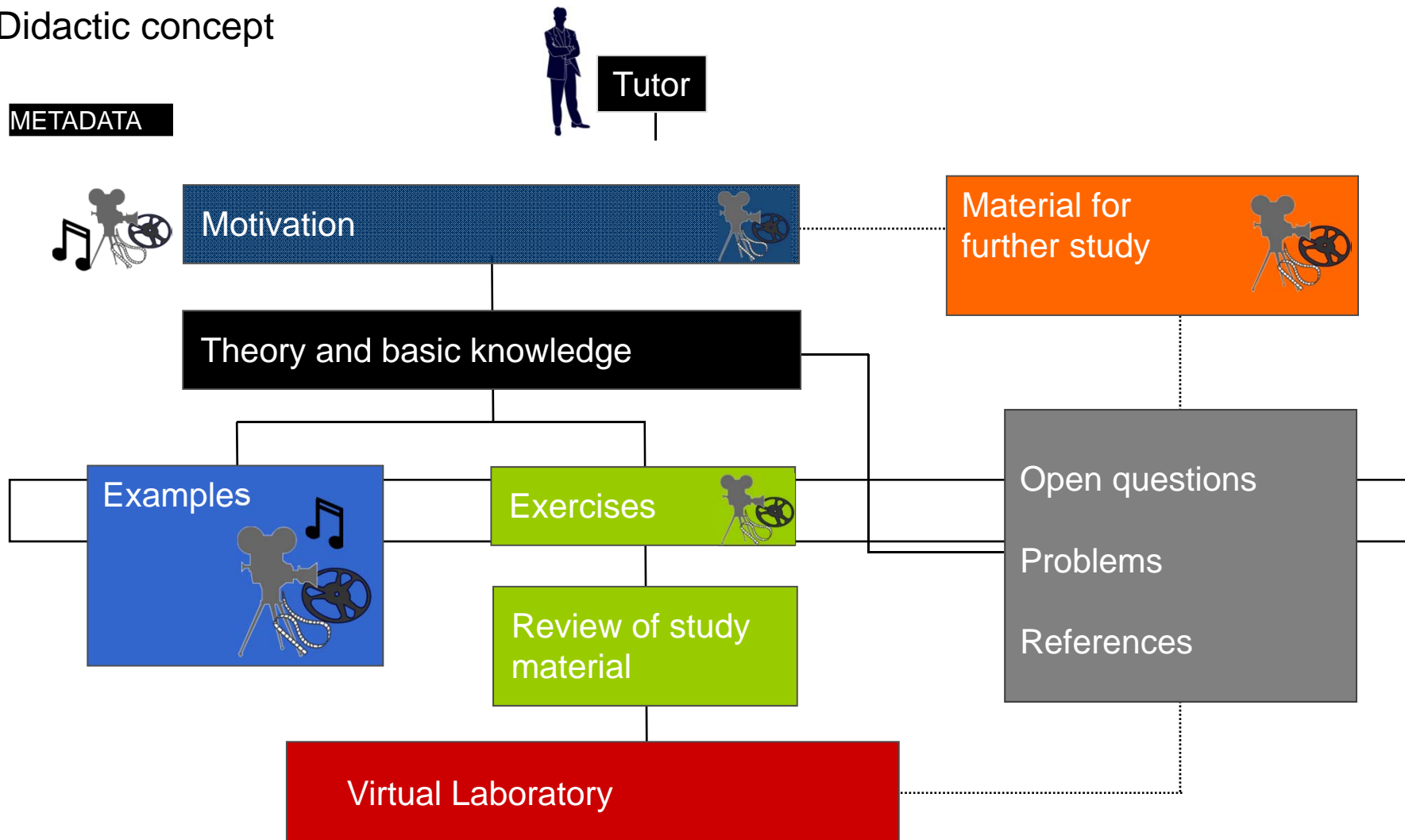
2
Bitmap

Report erzeugen << Kleiner

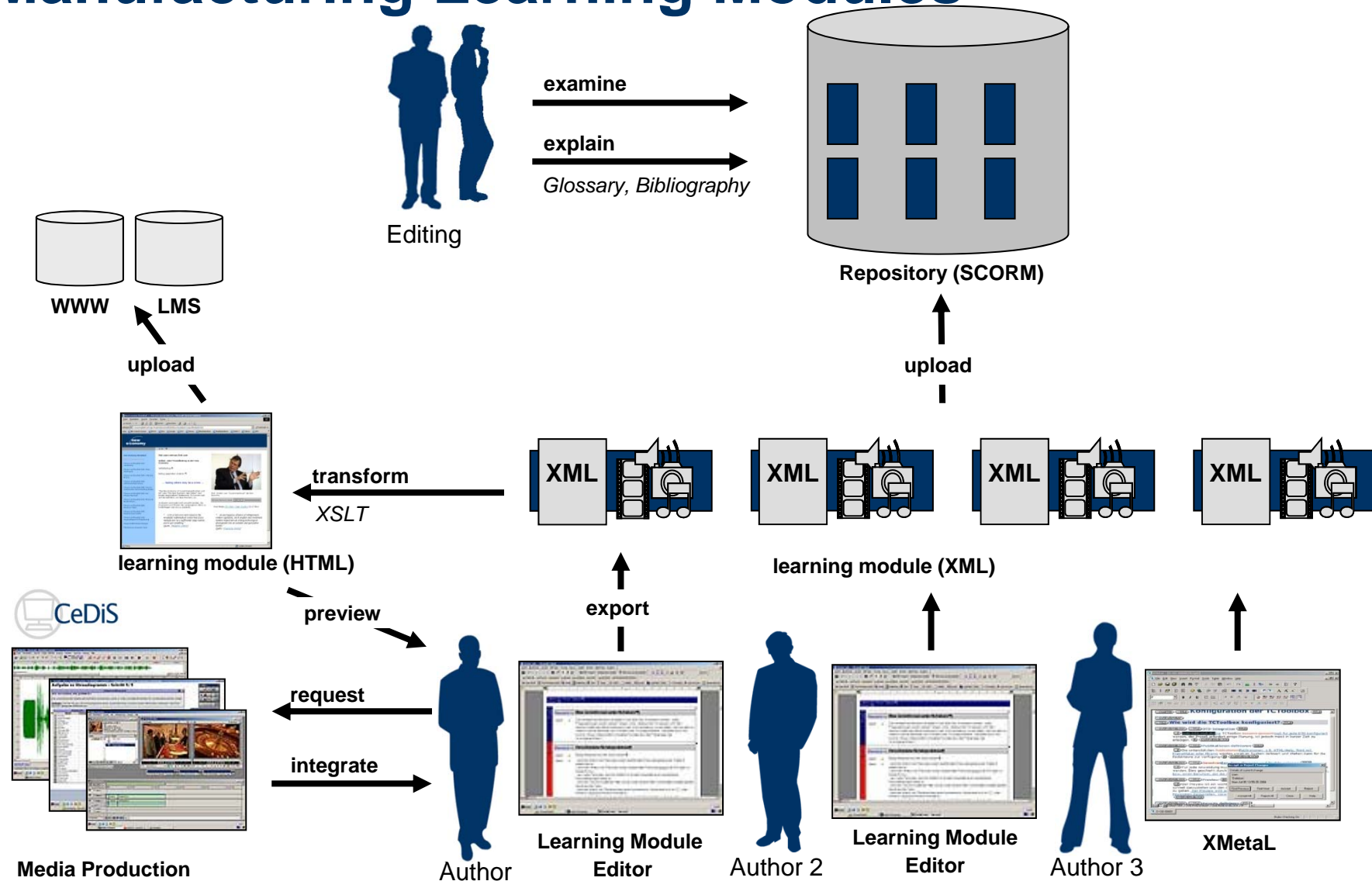
OK Abbrechen Hilfe

Authoring: Structure of Learning Modules

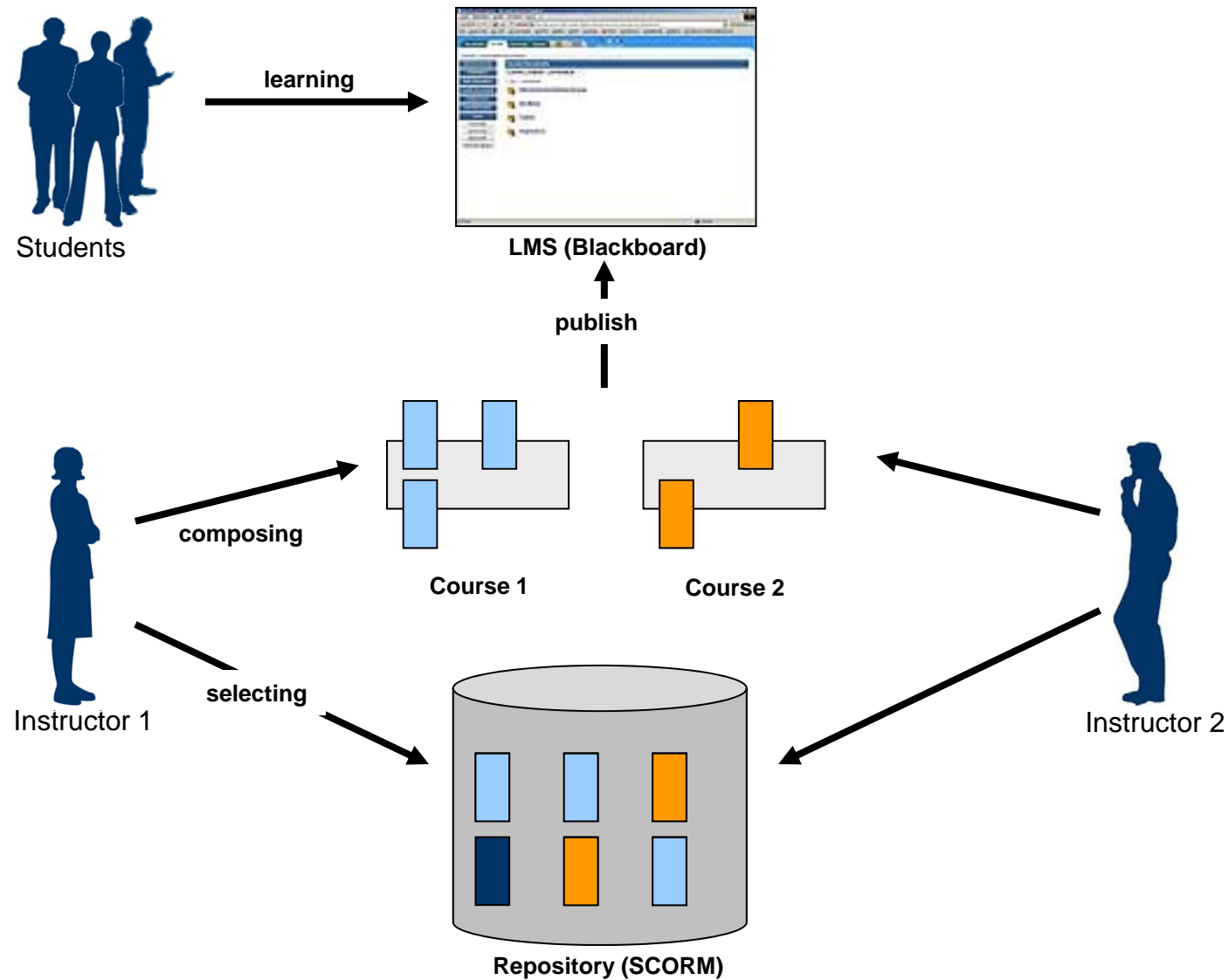
Didactic concept



Manufacturing Learning Modules



Course creation



Economics of E-Learning

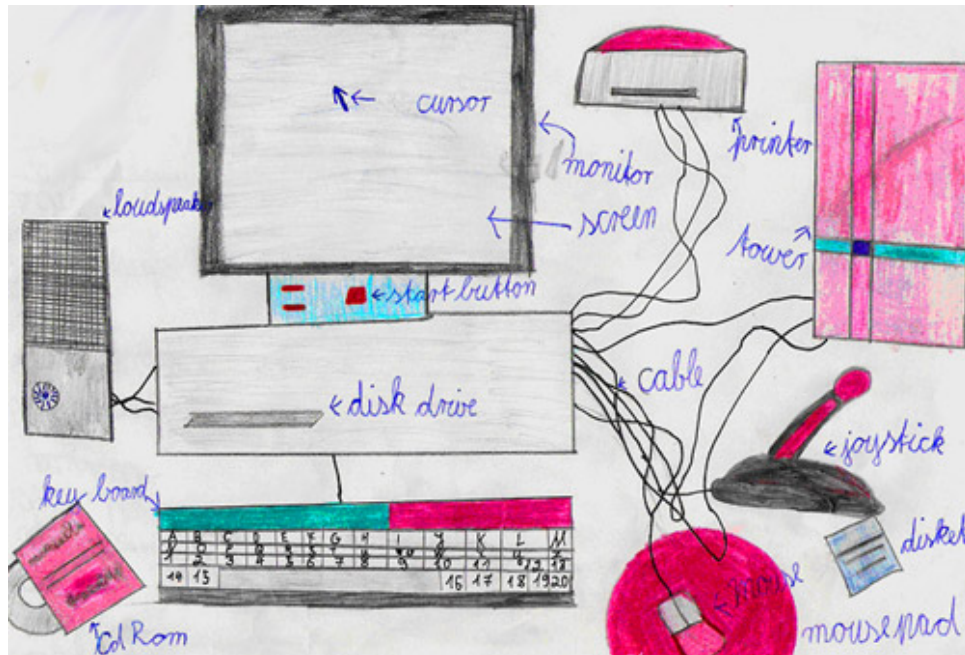


It's the economy, stupid ...

Outline III

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

Vision: Is E-Learning Easy to Do?!



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

E-Learning Environments



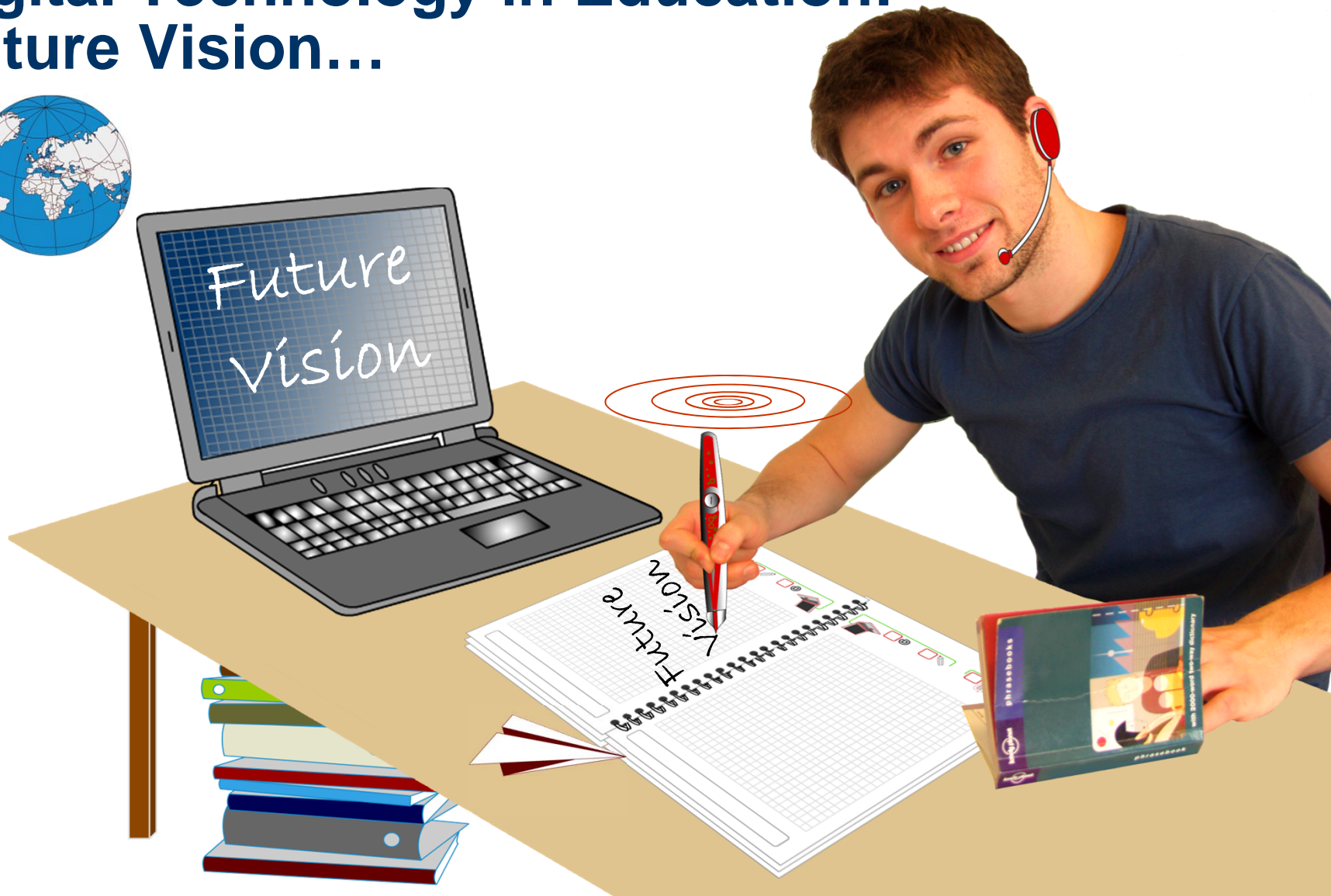
A significant advantage of E-Learning is the creation of individualized learning environments.....

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

E-Learning everywhere?



Digital Technology in Education: Future Vision...



Digital Technology and the Reality



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 and Design

Media & Design





Distributed Campus, Homepage

Freie Universität  Berlin

Startseite English Kontakt Team Impressum

DISTRIBUTED CAMPUS – FREIE UNIVERSITÄT BERLIN

EINLOGGEN REGISTRIEREN ÜBER UNS HILFE




Benutzername

Passwort


Passwort vergessen?

Login

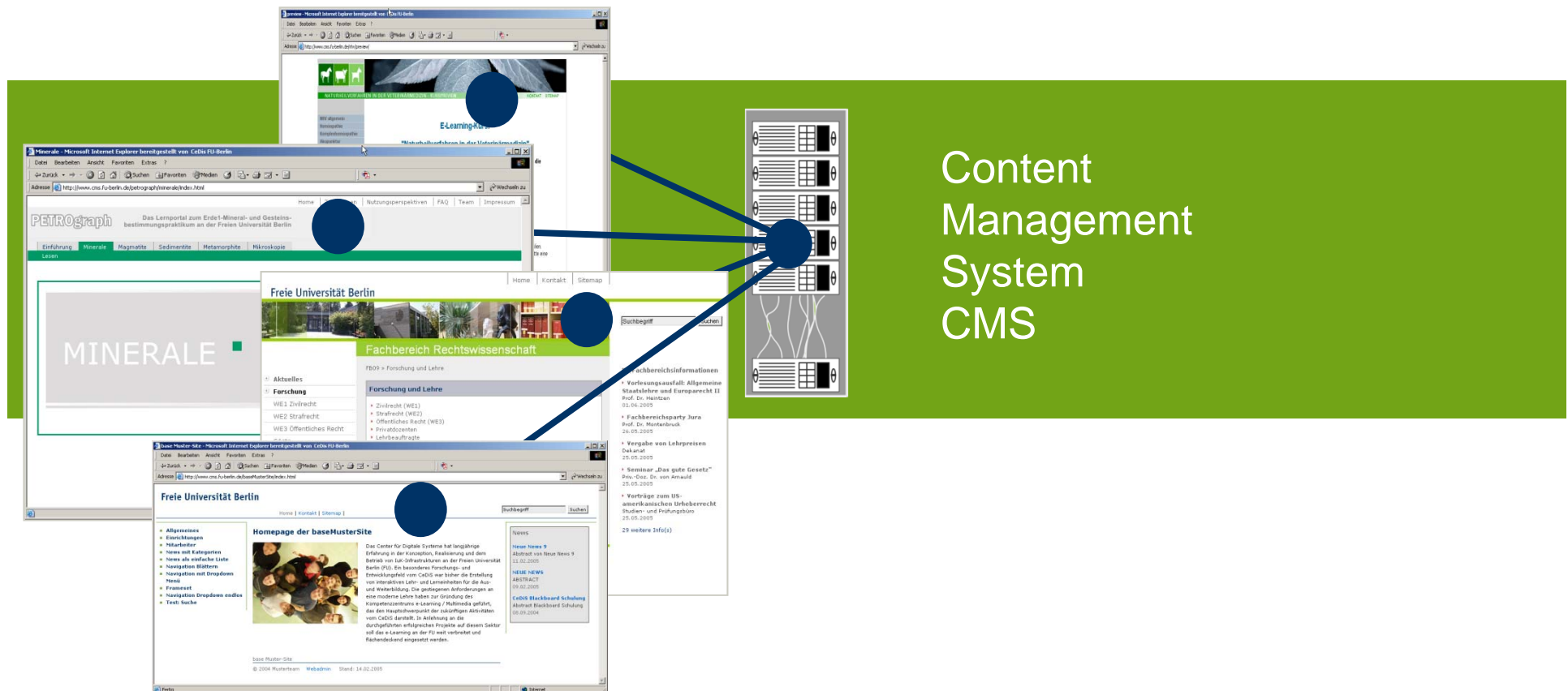


© Bernd Wannenmacher

© 2003–2014 Open Distributed Campus | Web-Administrator

 CeDiS **DAAD**

CeDiS – CMS



The image shows a collage of four web portals, each with a blue circle highlighting a specific element. Lines connect these circles to a central server rack icon, which is then connected to the text "Content Management System CMS".

- PETROgraph:** A screenshot of the PETROgraph portal, showing a navigation menu with "Einführung", "Minerale", "Petrographie", "Sedimente", "Metamorphite", and "Mikroskopie". A blue circle highlights the "Minerale" link.
- Freie Universität Berlin:** A screenshot of the Freie Universität Berlin website, showing a navigation menu with "Aktuelles", "Forschung", "WE1 Zivilrecht", "WE2 Strafrecht", and "WE3 Öffentliches Recht". A blue circle highlights the "Forschung" link.
- baseMusterSite:** A screenshot of the baseMusterSite, showing a navigation menu with "Allgemeines", "Einrichtungen", "Mitarbeiter", "Neu und Bekanntes", "Neu als einfache Liste", "Navigationen", "Navigationen mit Dropdown", "Presse", "Navigationen Dropdown", and "Texte Suche". A blue circle highlights the "Navigationen mit Dropdown" link.
- CeDiS:** A screenshot of the CeDiS website, showing a navigation menu with "Home", "Kontakt", and "Sitemap". A blue circle highlights the "Home" link.

The central server rack icon is connected to the text "Content Management System CMS".

Visual History Archive (VHA)

[Video example](#)



Freie Universität Berlin

[Home](#) | [Deutsch](#) | [Contact](#) | [Imprint](#)



FOR VISUAL HISTORY AND EDUCATION



Visual History Archive

News

- About the Archive
- Use at the Freie Universität
- In Schools
- Services and Support
- Usage Information
- Links

 **Enter Archive**

Home

The Visual History Archive at Freie Universität Berlin

The Freie Universität Berlin is the first European university that is providing access to the Visual History Archive of the Shoah Foundation Institute for Visual History and Education of the University of Southern California (USC). Students, teachers and researchers at the Freie Universität as well as external scientific institutions and researchers have access to the Visual History Archive. This makes it possible to view the 52,000 video interviews and testimonies with the survivors and witnesses of the Holocaust. The Visual History Archive is the world's largest historical video archive. This website provides you with information on the background and utilisation possibilities of the Visual History Archive.

- [Usage Information / Terms of Use](#) »
- [Introductory Presentations](#) »
- [Assistance with technical problems](#) »
- [In order to directly access the Visual History Archive, please use the link Enter Archive](#) »
- [Online Survey to evaluate the usage](#) »

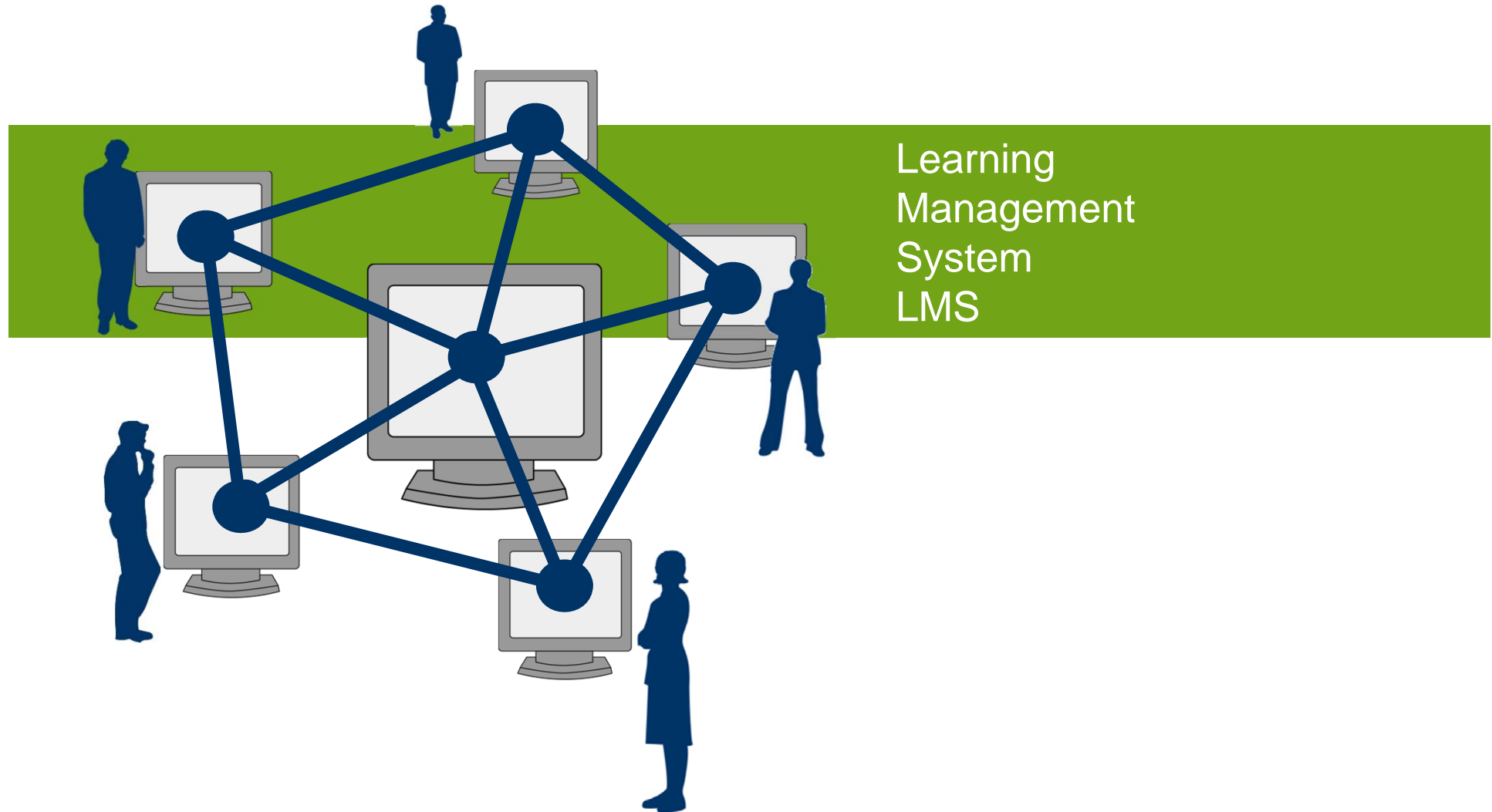
News

- ▶ [AG Jüdische Sammlungen visit](#)
Presentation of the VHA and afterwards a reception in the Clubhaus of the FU on Thursday, 18.09.2008
10.09.2008
- ▶ [Symposium on "Oral History"](#)
Participation of the VHA at the Memorial to the Murdered Jews of Europe Foundation event.
01.09.2008
- ▶ [New third-party funding project](#)
The Stiftung Deutsche Klassenlotterie foundation is funding the use of VHA interviews in school education and the classroom.
28.08.2008

[more News](#) »

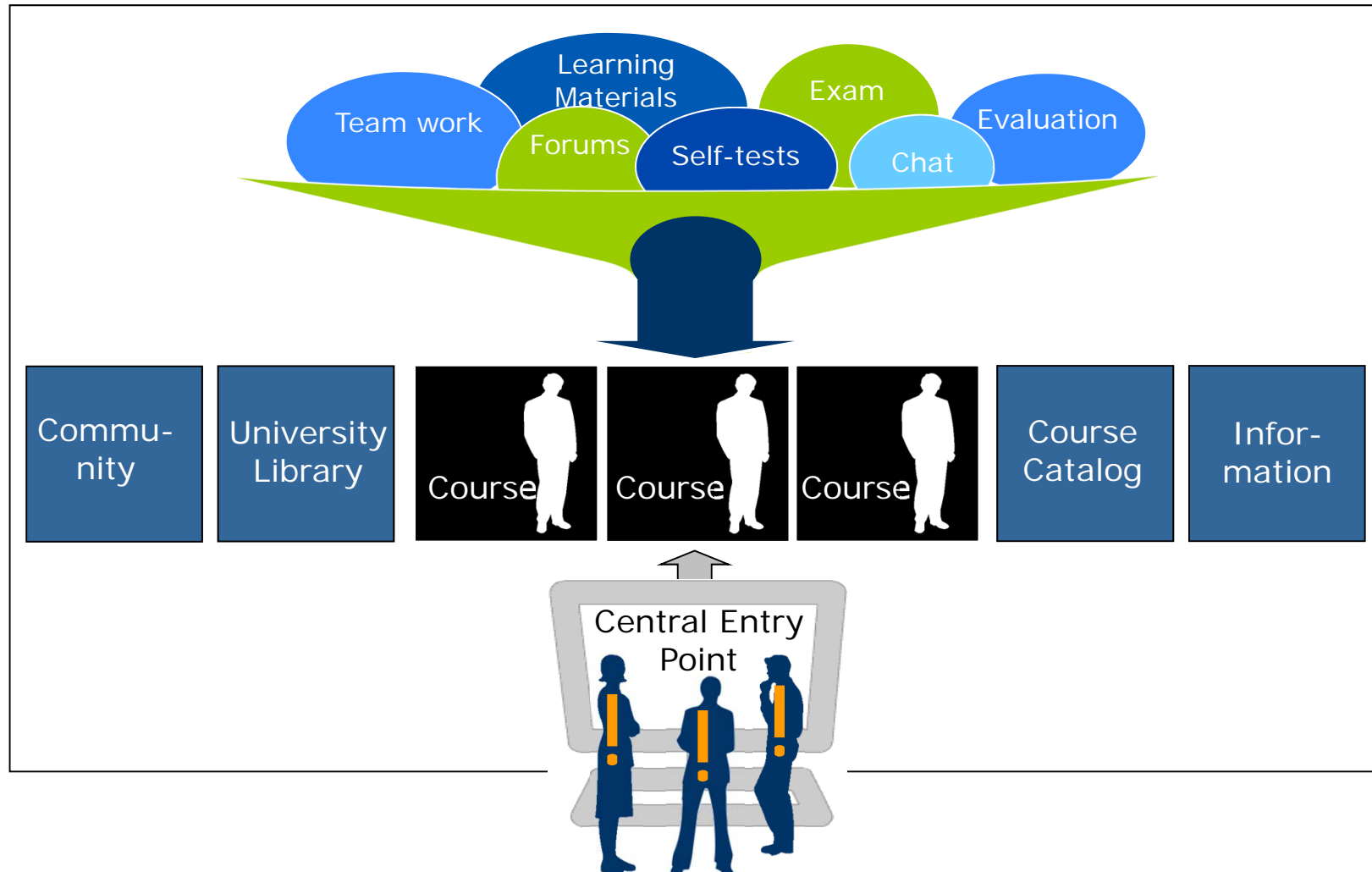



CeDiS - LMS



LMS – a Central Learning Platform for Teaching

Student Access to the Central LMS



Pro / Contra Blackboard LMS

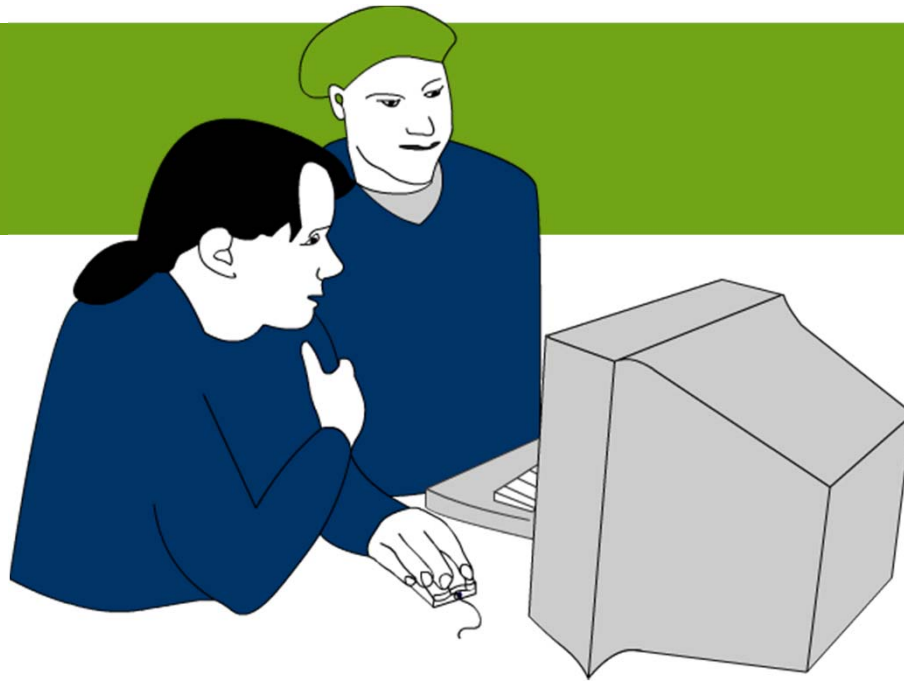
strong points:

- ease of use for students and teachers (maybe except Content Collection)
- fairly 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

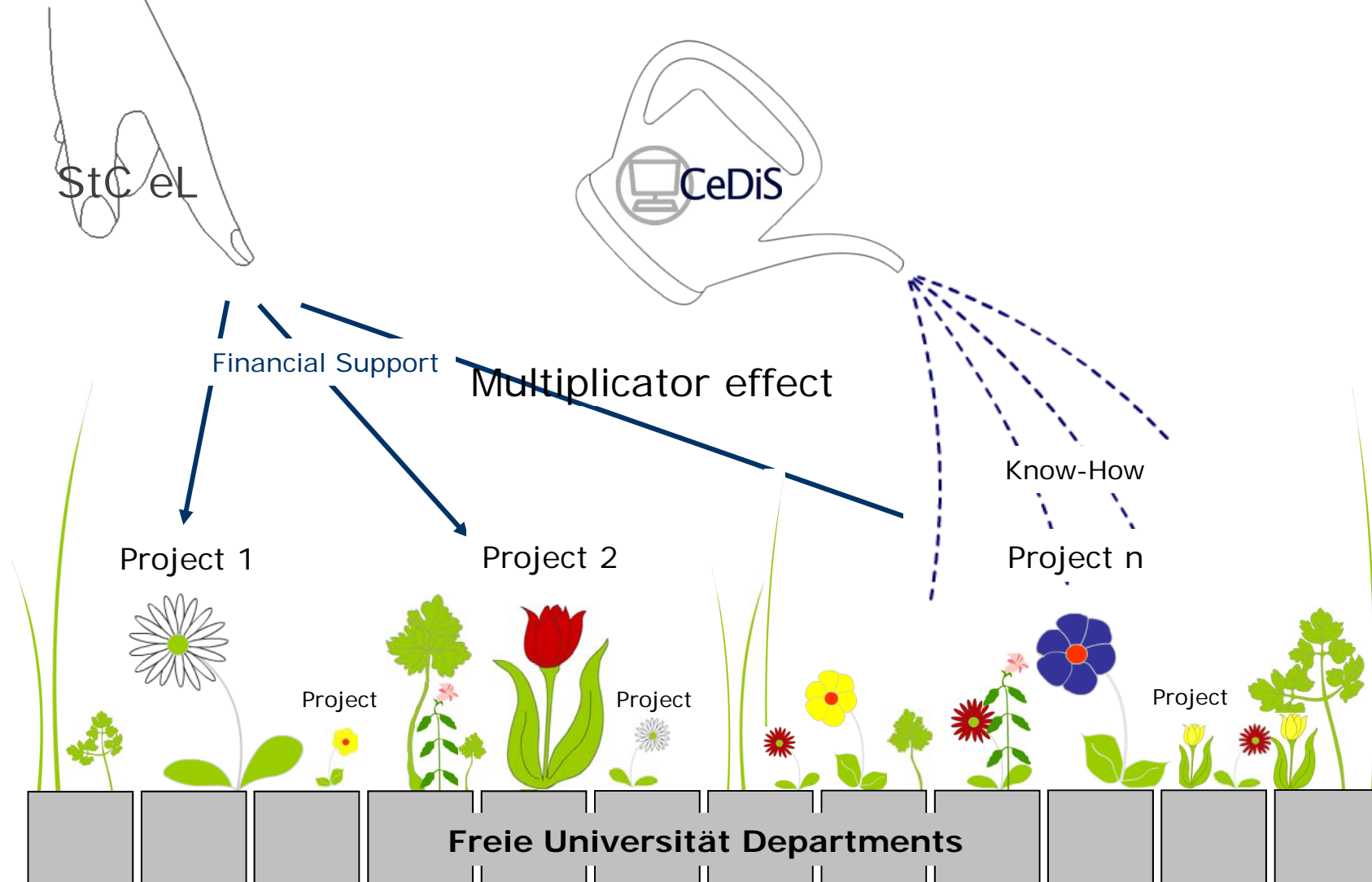
FU E-Learning Grants



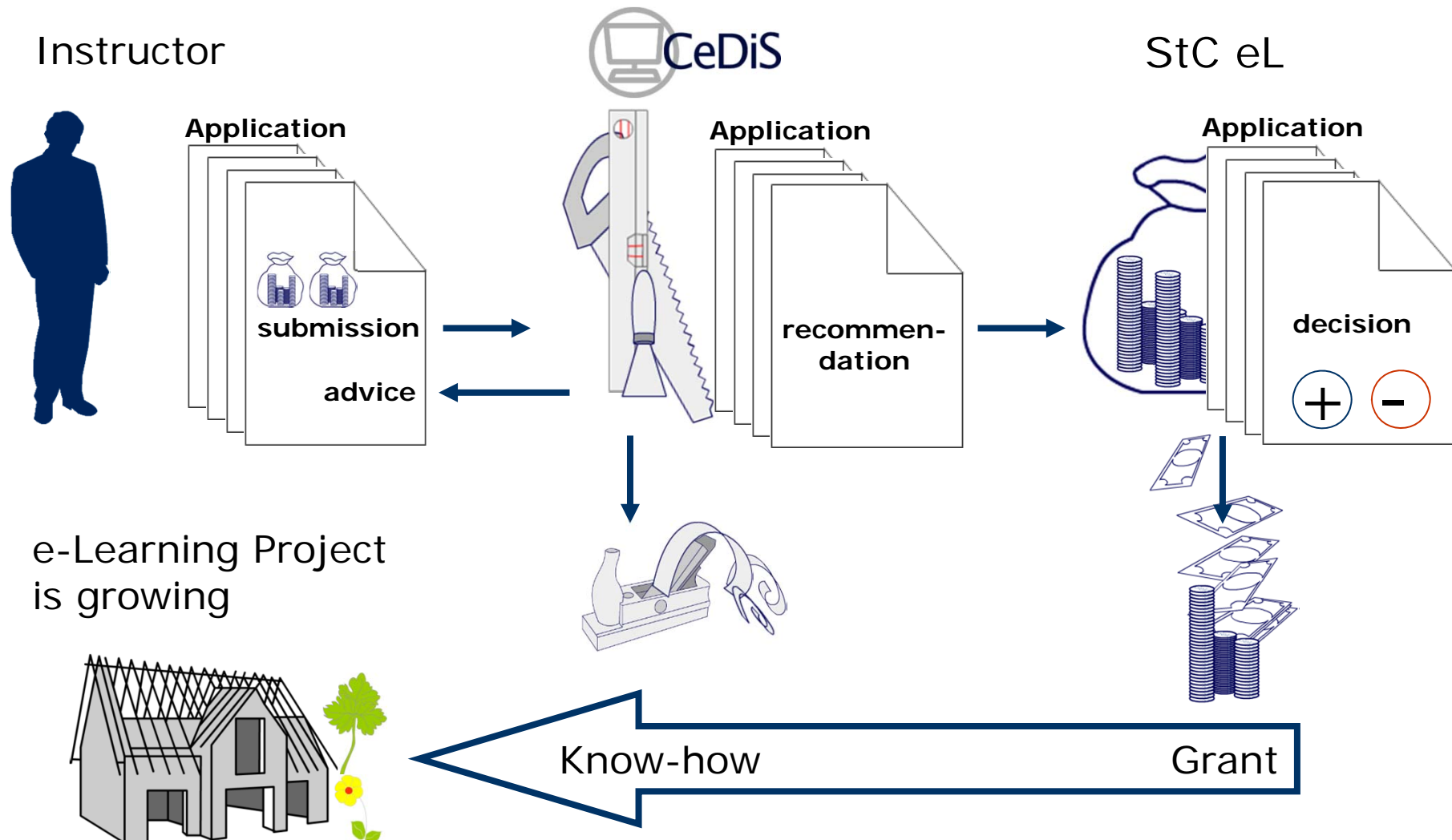
FU E-Learning Grants

powered by **FUe-Learning**

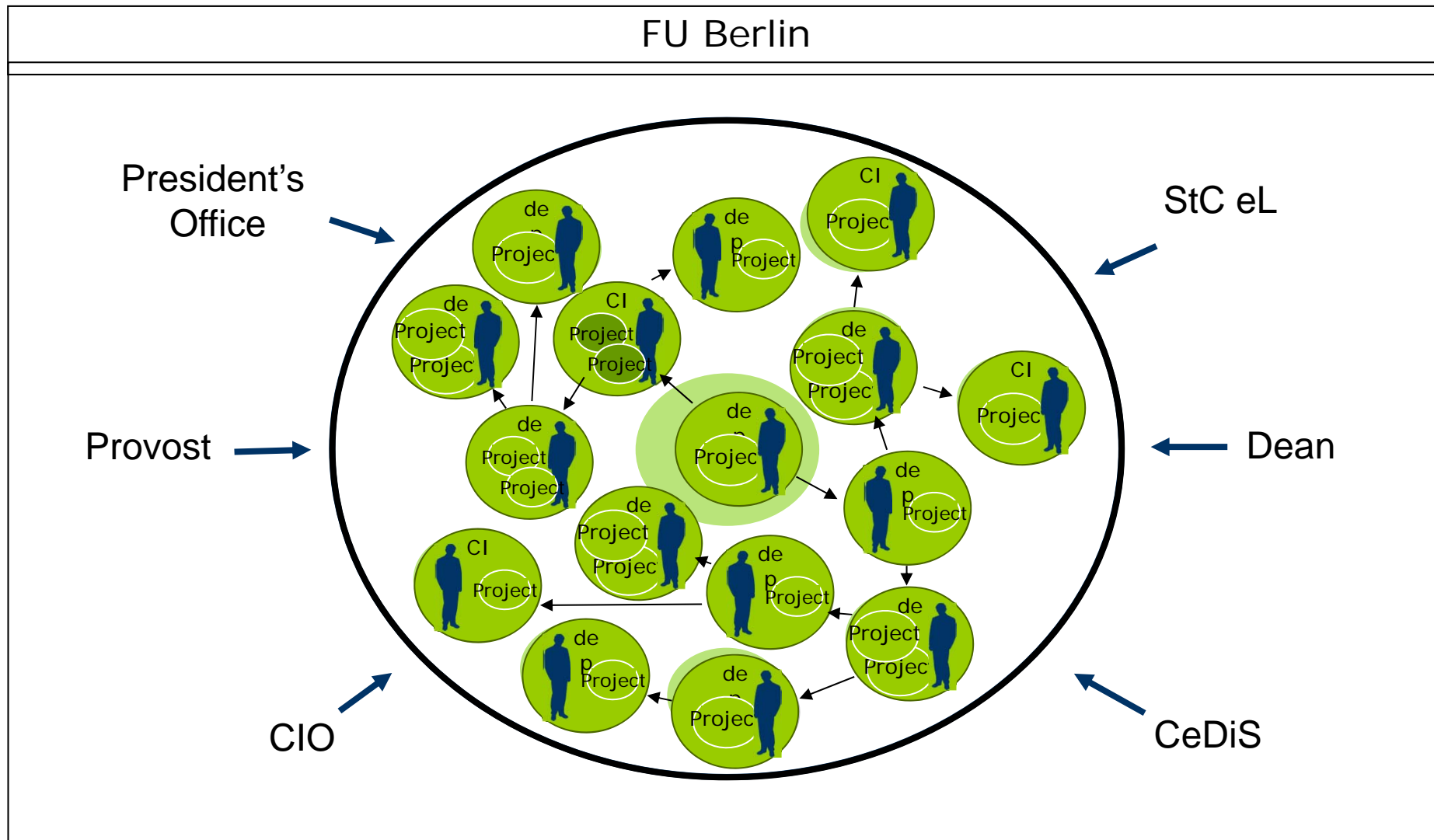
FU E-Learning Grants - Growth



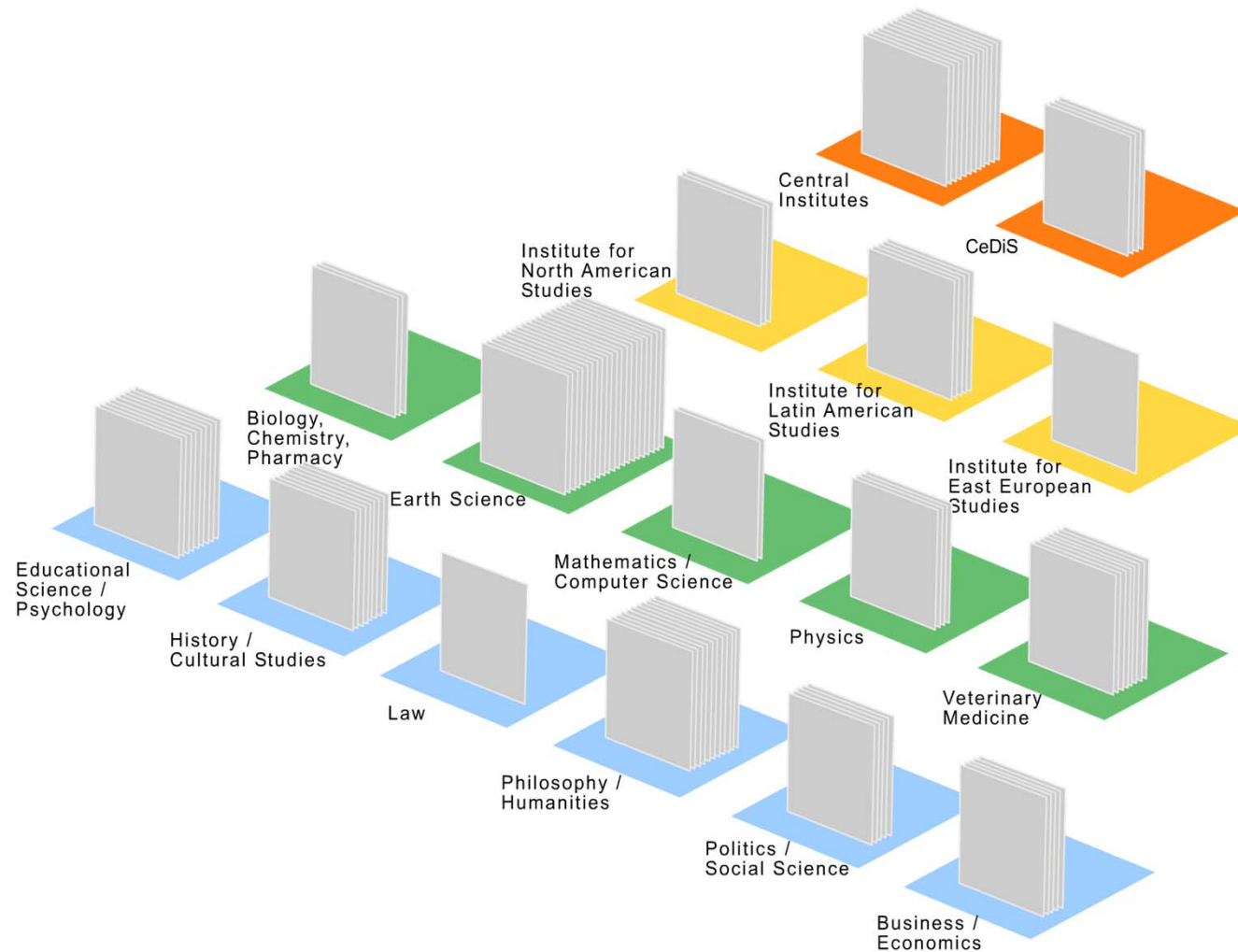
FU E-Learning Grant Program – Workflow



FU-wide E-Learning Dissemination



FU E-Learning Grants – Project Overview



Institute for Latin American Studies

E-Learning Projects

Knowledge Production of Latin-American Intellectuals

[Digital Sources of Anthropology of the Americas](#)

Student foreign visits (study abroad)

[Women and Gender in Latin America](#)



[Video example](#)



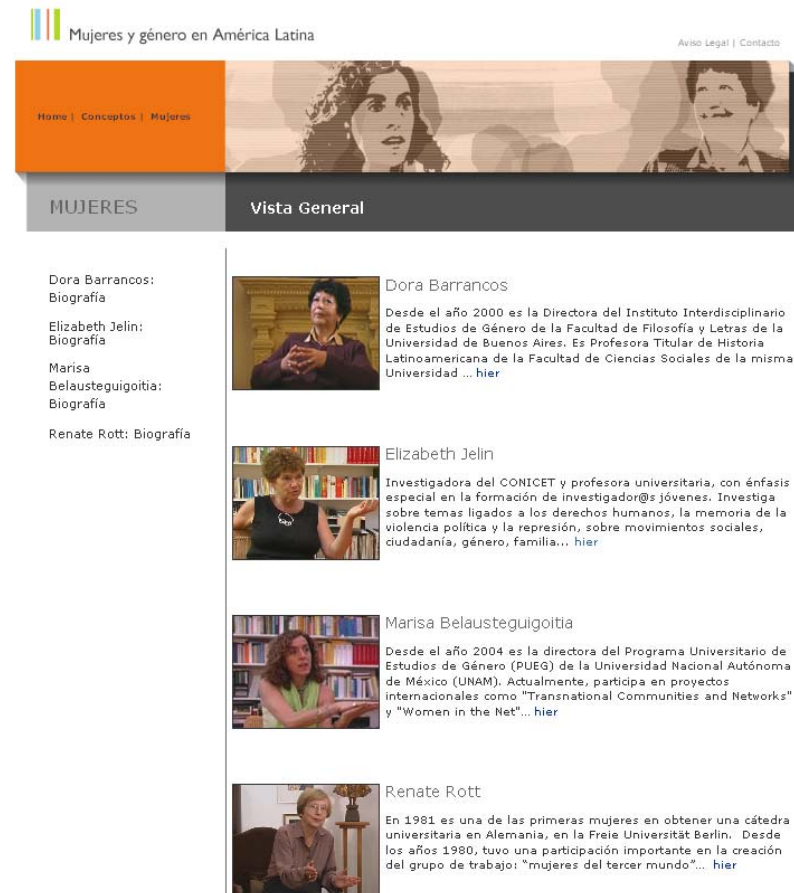
[Video example](#)

Concept for Interviewing

During the seminar, the portraits of four outstanding female researchers were compiled: Dora Barrancos, Marisa Belausteguigoitia, Elizabeth Jelin, Renate Rott.

Interview questions on the central topics and key terms of the researchers' work were formulated.

Following the interviews, the recordings were cut, transcribed and titles and paragraph headings were added.



Students' Experience



Media skills

Interlocking of theoretical knowledge and practical skills

Sustainability of the knowledge gained

Routine part of teaching

Advancing E-Learning



The FUEl project
(FU e-Learning)

FUeL – Key Issues

- Establish Blended Learning in the Departments and Institutes
- Integrate the Central Learning Management System within the Freie Universität IT-Infrastructure
- Create a Central Student Portal
- Reuse e-Learning Materials (Learning Object Repository)
- Provide Expertise on the Market



Departments



IT-Integration



Student-Portal

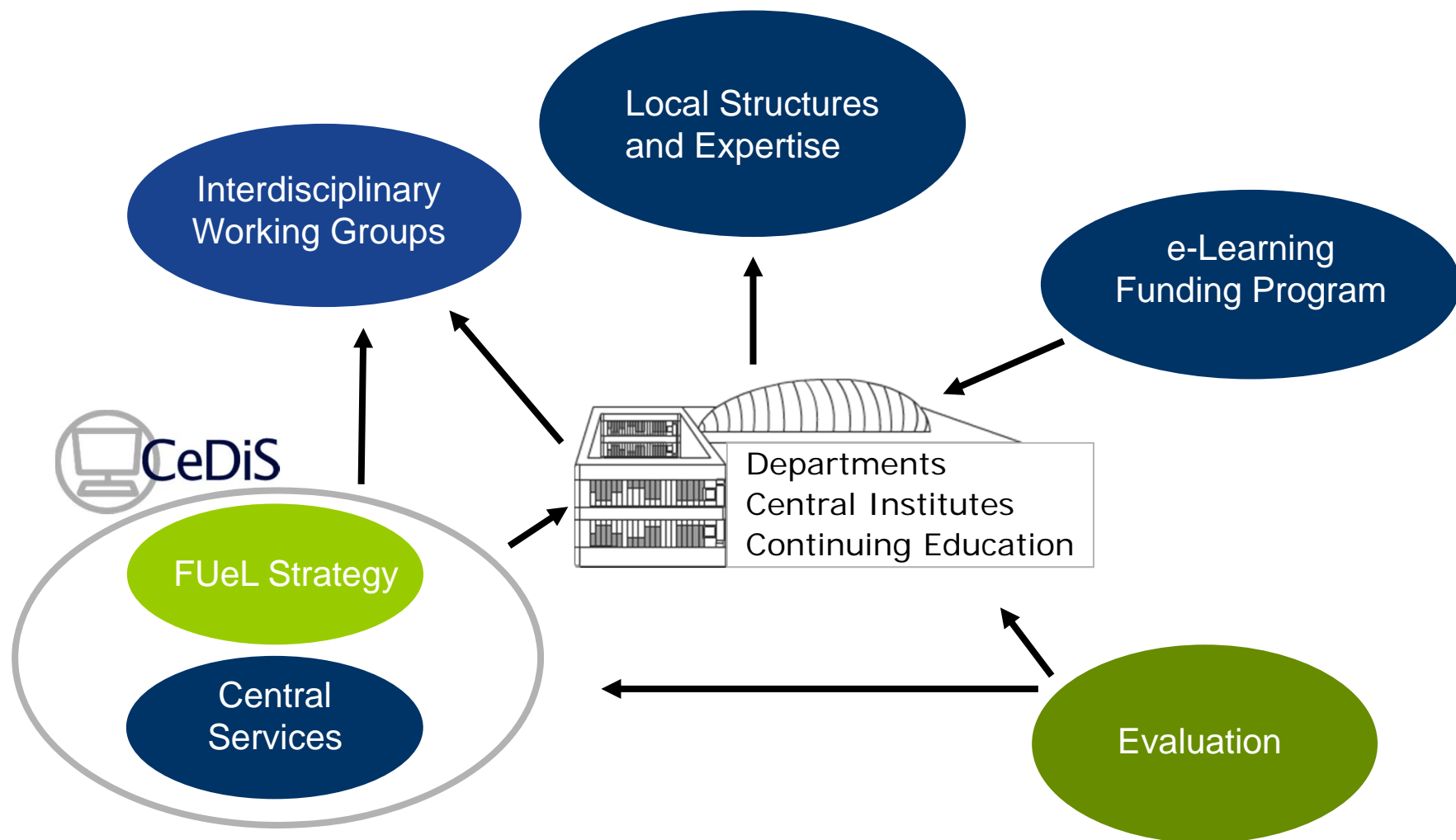


Materials

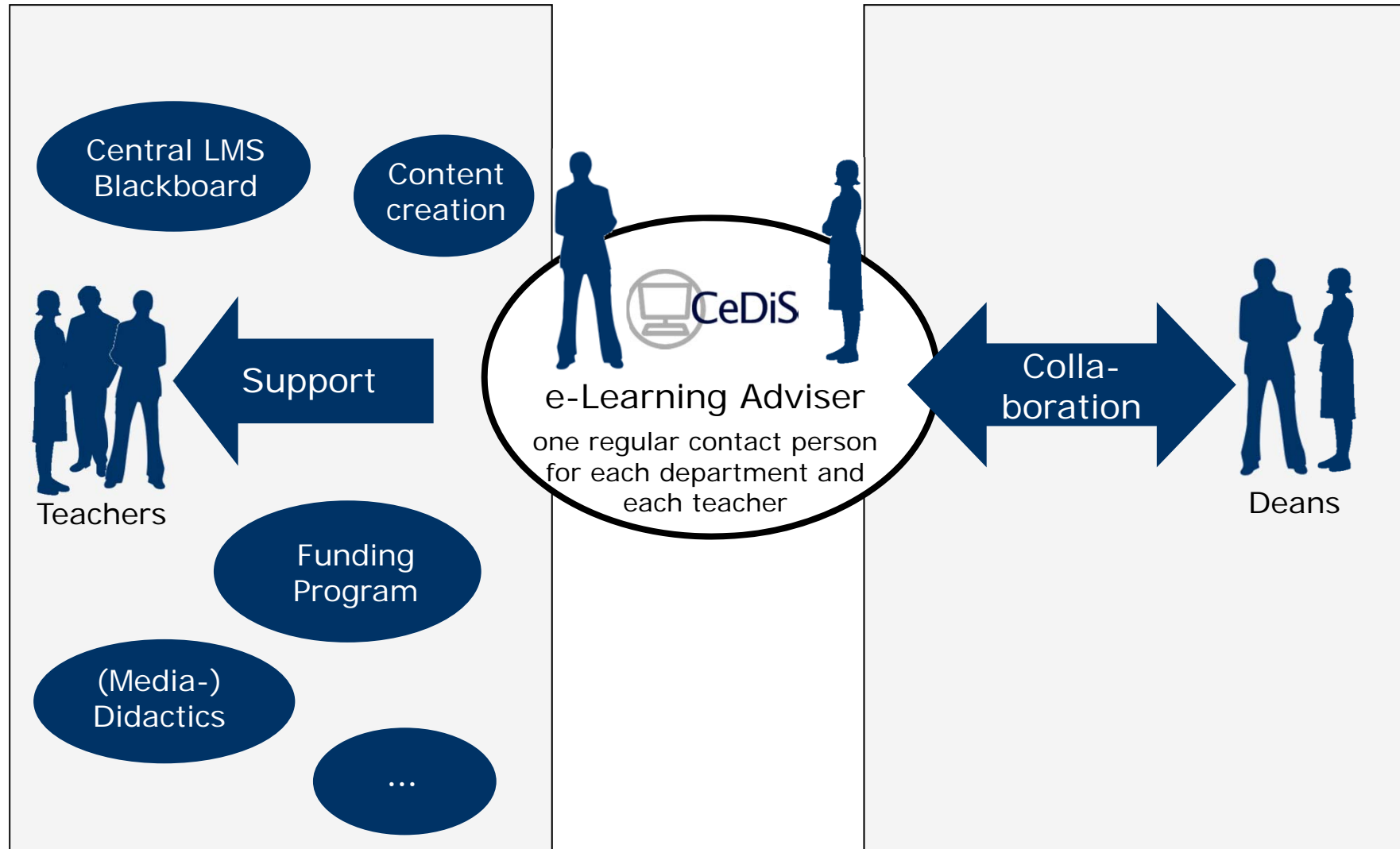


Marketing

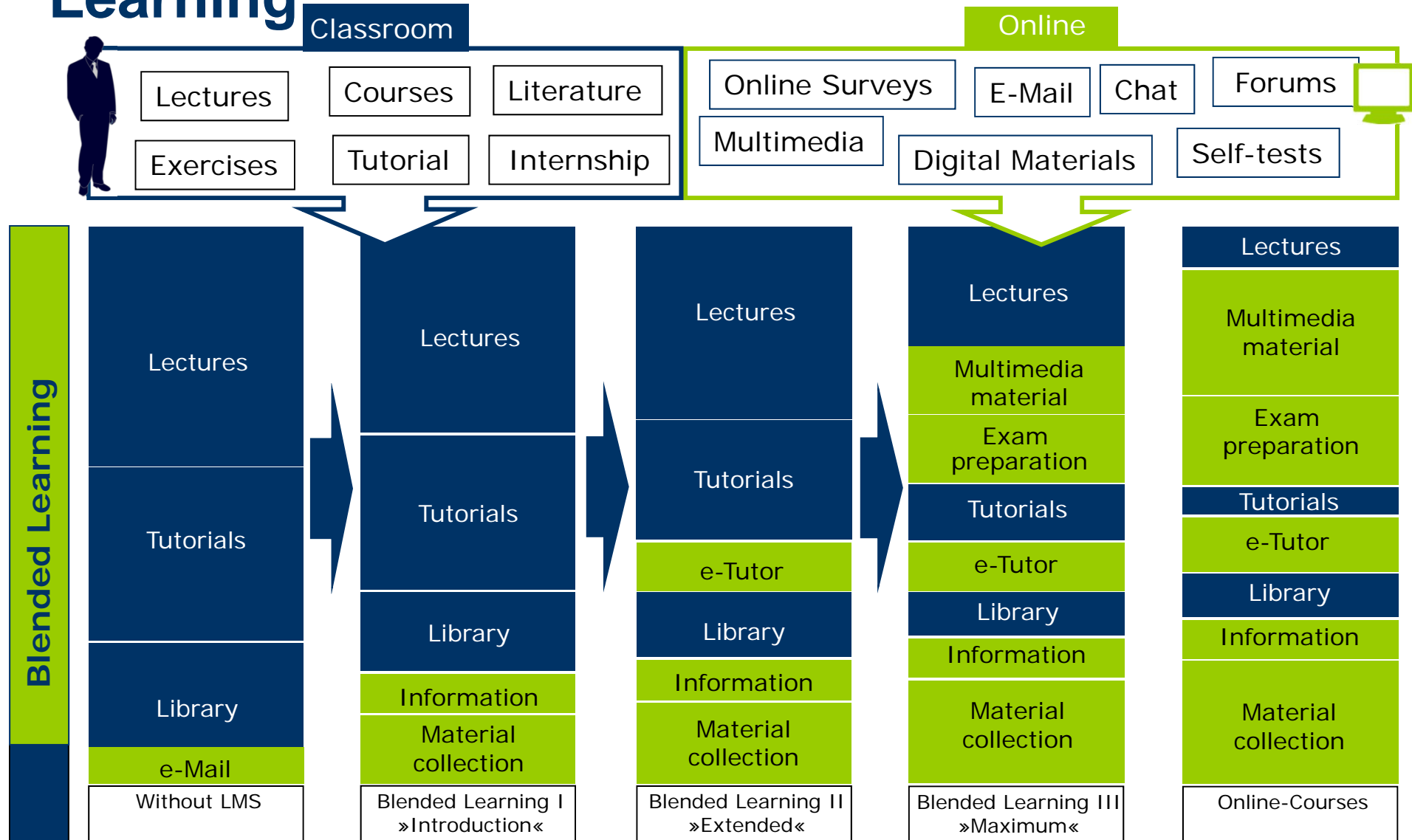
Establishing Blended Learning



E-Learning Consulting

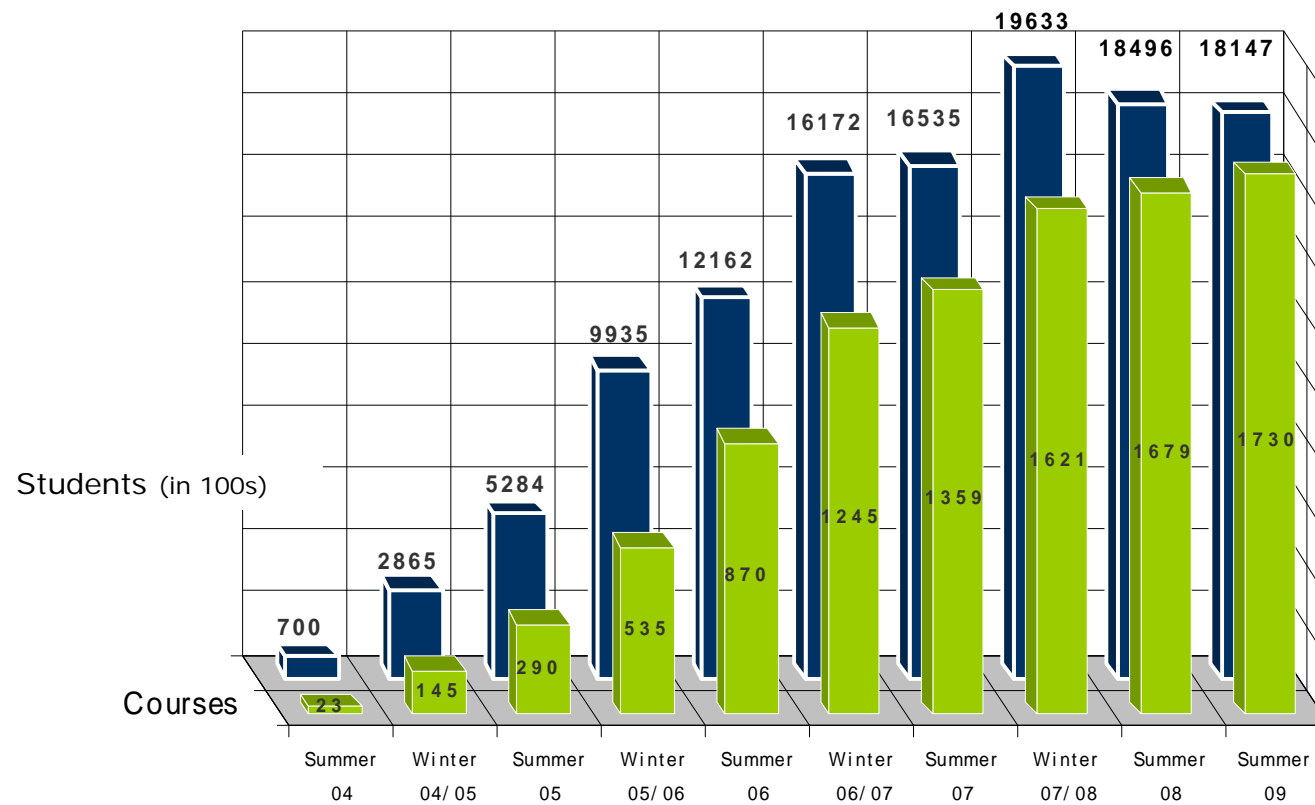


From the Traditional Classroom to Blended Learning



E-Learning in Use

Degree of Utilization

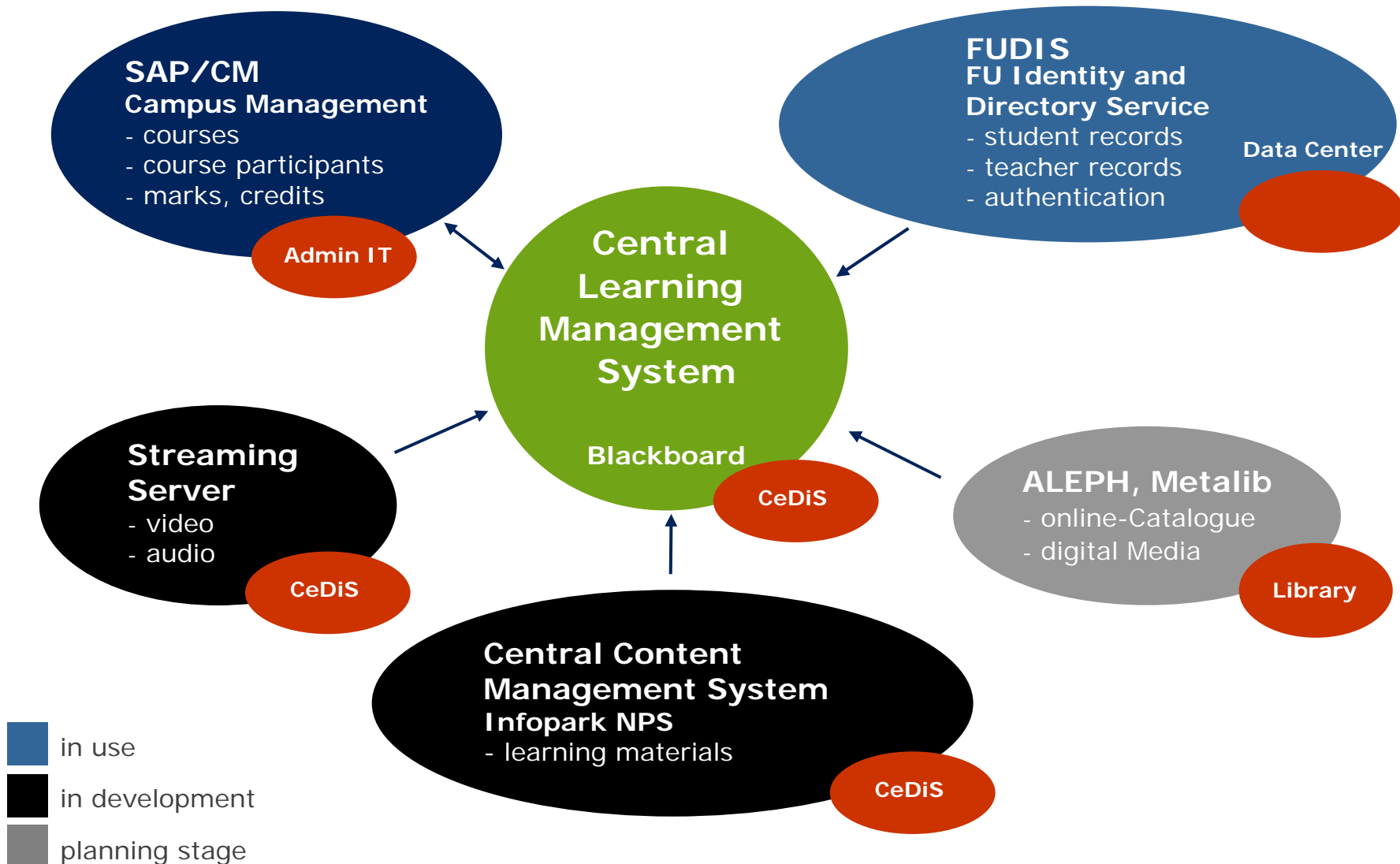


IT-Integration

Integrating the Central LMS
with the IT-Infrastructure of
Freie Universität Berlin



IT-Integration



Outline V

- 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

„Web 2.0” / Social Software

Social Software

Content produced by users
Low threshold / easy to use
The Web as a 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 members of Freie Universität Berlin
- (multi-user) blog for Blackboard courses
- Selected System: WordPress

CeDiS Wiki, RSS Services

Wiki availability

- Wikis for all members of Freie Universität Berlin
- Wikis for Blackboard courses
- Selected System: Confluence

RSS feeds

- Announcements from Blackboard courses

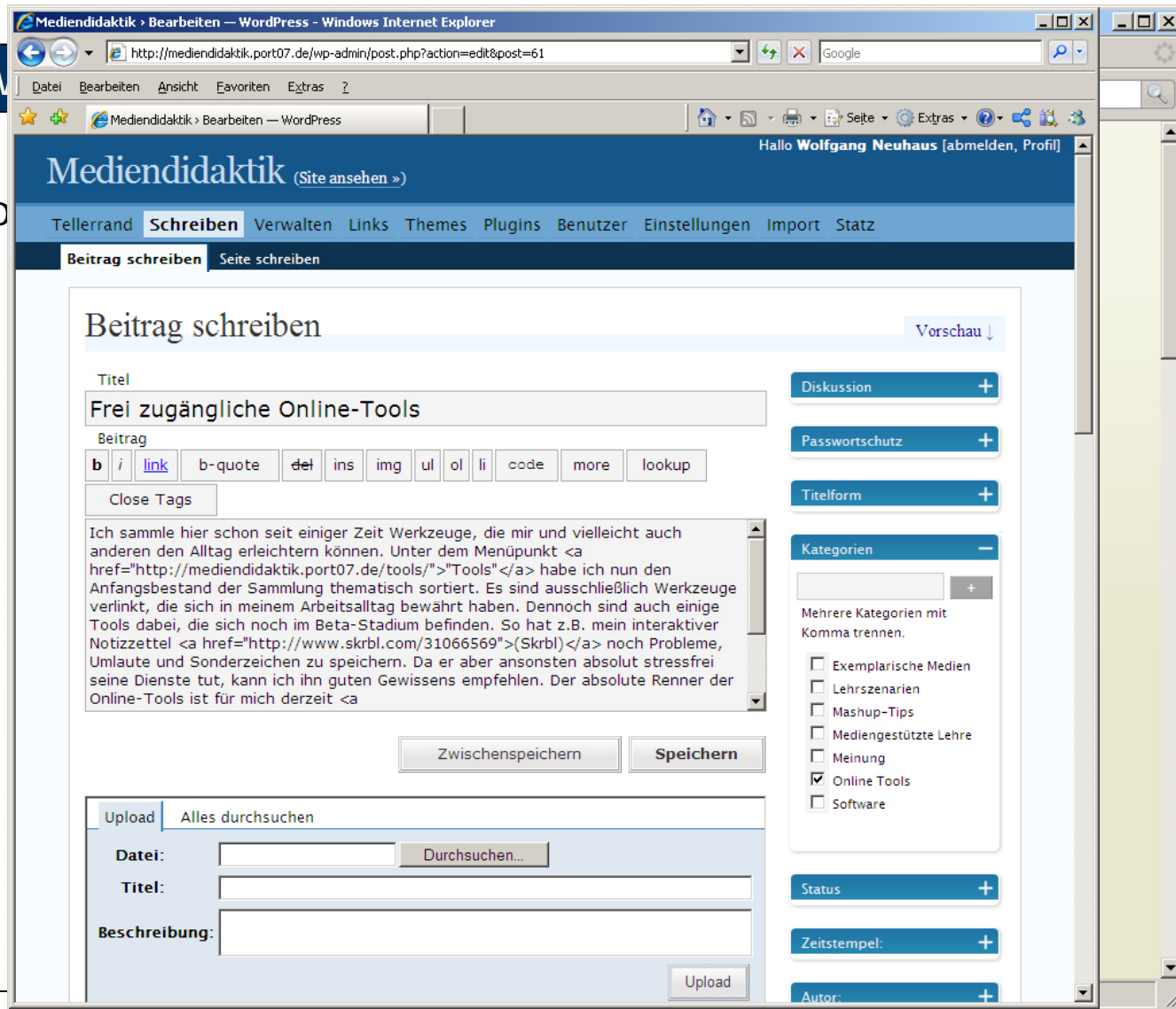
(Podcasts, Social Bookmarking, ...)

„Web 2.0“: Social Software

Blogs (W)

Website

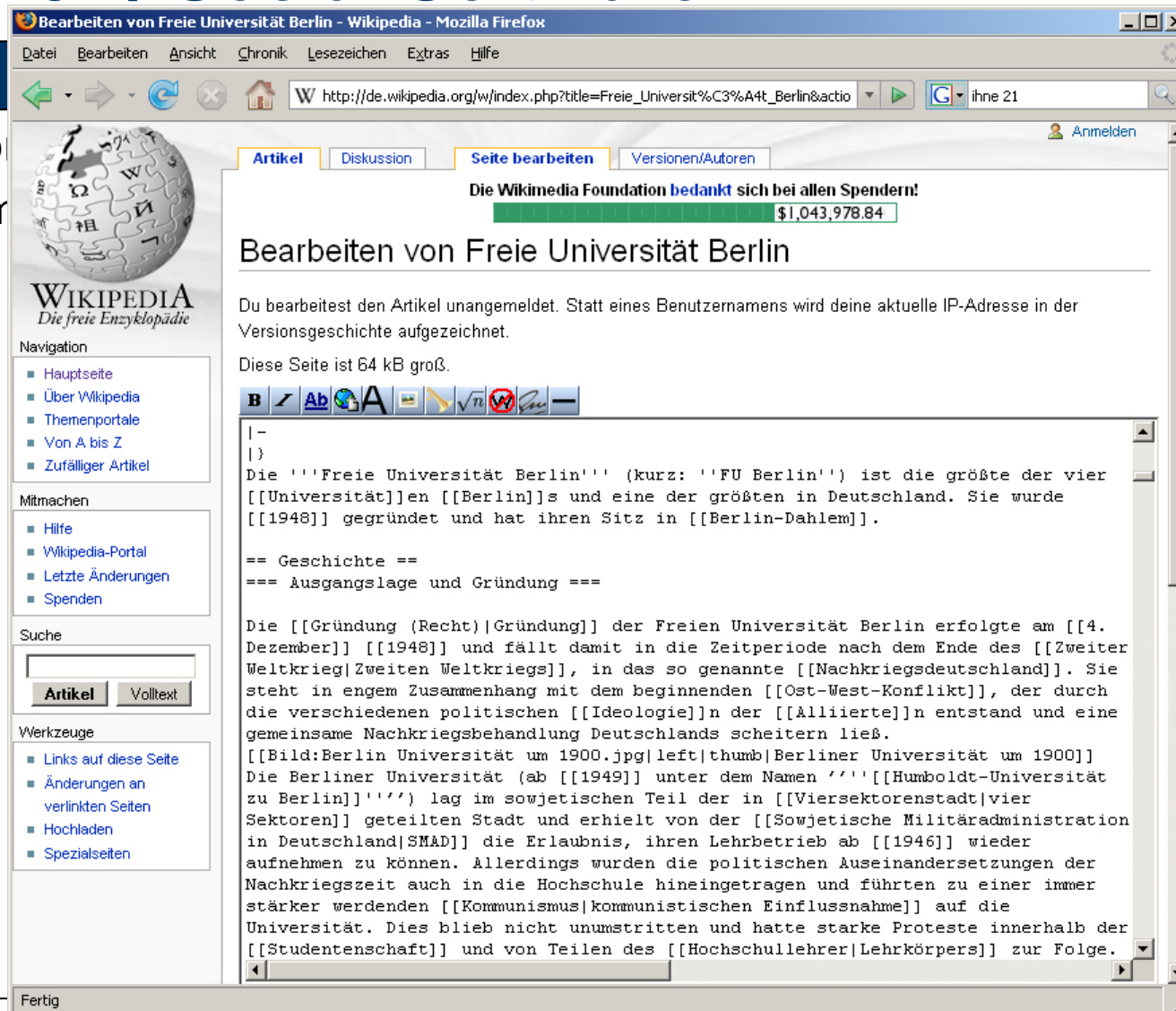
Used mo



„Web 2.0“ / Social Software

Wikis

Collection
Most fam



The screenshot shows the Wikipedia editing interface for the article "Freie Universität Berlin". The browser window title is "Bearbeiten von Freie Universität Berlin - Wikipedia - Mozilla Firefox". The address bar shows the URL "http://de.wikipedia.org/w/index.php?title=Freie_Universit%C3%A4t_Berlin&action=edit". The page has a navigation bar with tabs for "Artikel", "Diskussion", "Seite bearbeiten", and "Versionen/Autoren". A message from the Wikimedia Foundation thanks all donors, showing a total of \$1,043,978.84. The article title "Bearbeiten von Freie Universität Berlin" is displayed. Below the title, it states: "Du bearbeitest den Artikel unangemeldet. Statt eines Benutzernamens wird deine aktuelle IP-Adresse in der Versionsgeschichte aufgezeichnet." and "Diese Seite ist 64 kB groß." The editing toolbar includes buttons for bold, italic, link, unlink, table, template, help, undo, redo, and a visual editor icon. The main editing area contains the following text:

```

|-
|}
Die '''Freie Universität Berlin''' (kurz: '''FU Berlin''') ist die größte der vier
[[Universität]]en [[Berlin]]s und eine der größten in Deutschland. Sie wurde
[[1948]] gegründet und hat ihren Sitz in [[Berlin-Dahlem]].

== Geschichte ==
=== Ausgangslage und Gründung ===

Die [[Gründung (Recht)|Gründung]] der Freien Universität Berlin erfolgte am [[4.
Dezember]] [[1948]] und fällt damit in die Zeitperiode nach dem Ende des [[Zweiter
Weltkrieg|Zweiten Weltkriegs]], in das so genannte [[Nachkriegsdeutschland]]. Sie
steht in engem Zusammenhang mit dem beginnenden [[Ost-West-Konflikt]], der durch
die verschiedenen politischen [[Ideologie]]n der [[Alliierte]]n entstand und eine
gemeinsame Nachkriegsbehandlung Deutschlands scheitern ließ.
[[Bild:Berlin Universität um 1900.jpg|left|thumb|Berliner Universität um 1900]]
Die Berliner Universität (ab [[1949]] unter dem Namen '''[[Humboldt-Universität
zu Berlin]]''') lag im sowjetischen Teil der in [[Viersektorenstadt|vier
Sektoren]] geteilten Stadt und erhielt von der [[Sowjetische Militäradministration
in Deutschland|SMAD]] die Erlaubnis, ihren Lehrbetrieb ab [[1946]] wieder
aufnehmen zu können. Allerdings wurden die politischen Auseinandersetzungen der
Nachkriegszeit auch in die Hochschule hineingetragen und führten zu einer immer
stärker werdenden [[Kommunismus|kommunistischen Einflussnahme]] auf die
Universität. Dies blieb nicht unumstritten und hatte starke Proteste innerhalb der
[[Studentenschaft]] und von Teilen des [[Hochschullehrer|Lehrkörpers]] zur Folge.

```

On the left side, there is a sidebar with navigation links: "Hauptseite", "Über Wikipedia", "Themenportale", "Von A bis Z", "Zufälliger Artikel", "Mitmachen" (including "Hilfe", "Wikipedia-Portal", "Letzte Änderungen", "Spenden"), "Suche" (with a search box and "Artikel", "Volltext" buttons), and "Werkzeuge" (including "Links auf diese Seite", "Änderungen an verlinkten Seiten", "Hochladen", "Spezialseiten").

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: Involves...

- ...»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 customization
- ...common-sense intelligence (things that teach)?
- ...user-controlled privacy and security!

...»Create humane applications«



Digital Technology in Education: Avoids ...

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



e-Learning lessons – Summary

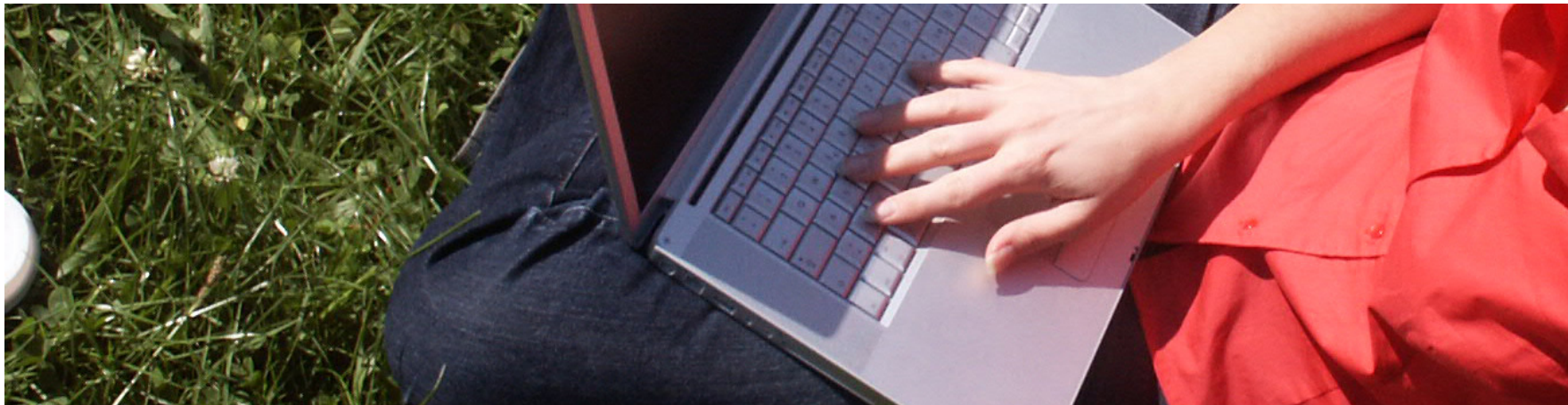
- e-Learning is a long-term project
- Executive support is necessary
- Competence Center
- Close collaboration with the departments
- Decentralize know-how
- Stepwise Migration
- Offer grants and incentives
- Central LMS leads to high synergy effects
- Open content and commercial content helps saving costs
- Multimedia authoring is challenging
- The new Web 2.0 paradigm might hit central structures
- 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 evoke '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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