E-Learning in Higher Education

Overview and case study Freie Universität Berlin
Overview

1. E-Learning in Higher Education

2. E-Learning at Freie Universität Berlin (FUB): Strategy and infrastructure

3. Blended Learning at FUB: Good Practice

4. Summary
1. E-Learning in Higher Education
Learning in Higher Education
E-Learning: Some definitions …

"E-Learning is defined as all forms of electronic supported learning and teaching."

"e-Learning can be defined as 'learning facilitated and supported through the use of information and communications technology'. It can cover a spectrum of activities from the use of technology to support learning as part of a ‘blended’ approach (a combination of traditional and e-learning approaches), to learning that is delivered entirely online. Whatever the technology, however, learning is the vital element."

JISC e-learning definition from http://www.jisc.ac.uk/elearning
E-Learning: History

knowledge transfer with Computer Based Trainings (CBT)
- offline learning software
- animations
- linearity
- no communication
- inflexible

knowledge transfer with Web Based Trainings (WBT)
- online learning software
- easy to update
- basic online-communication

qualifying using Blended Learning
- integration of
- F2f teaching and e-learning
- in one learning scenario

competence development with Blended Learning and Social Software
- integration of
- F2f teaching, e-learning 2.0
- Knowledge management
- in one learning process

mid 90th
end 90th
turn of the century
at present

Erpenbeck, J., Sauter, W. Kompetenzentwicklung im Netz. Luchterhand, 2007, p146
E-Learning: Blended Learning

A method of delivering teaching and learning that involves both face-to-face teaching and the use of technology together at the same time.

http://www.jiscdigitalmedia.ac.uk/crossmedia/advice/introduction-to-elearning
Blended Learning course

Week 1

- e-learning activity
- in-class activity
- e-learning activity
- in-class activity
- e-learning activity

Week 2

- in-class activity
- in-class activity
- e-learning activity
- in-class activity
- e-learning activity

Week 3

...
E-Learning: E-Learning 2.0

"E-Learning 2.0 is based on tools that combine ease of content creation, web delivery, and integrated collaboration."


"E-Learning 2.0 refers to a second phase of e-learning based on Web 2.0 and emerging trends in e-learning technology."

E-Learning in HE: Current Trends

**e-learning scenarios**

- Blended Learning: combining face-to-face instruction and computer-mediated instruction
- A growing number of universities offer a select set of academic degree and certificate programmes via the internet at a wide range of levels and in different disciplines

**e-learning technologies**

- Most universities have some kind of LMS
- E-Learning 2.0: using web 2.0 applications in educational settings
- Computer-delivered lectures as a service
- Some educational institutions are present in Second Life
- Open courseware, open educational resources
- Mobile learning
Models of Blended Learning in HEI

Enhancement
- distributing information
- delivering (multimedia) content
- including tests and surveys

Integration
- e-learning elements and in-class teaching have specific tasks
- classroom- and online-instruction are interrelated

Virtual learning
- mostly online distance learning with a few in-house workshops

Bachmann et al. 2002
E-Learning Technologies

“traditional” tools

Learning Management System (LMS)
- e-content
- forum, chat, groups, ...
- quizzes, survey, ...

for distributing and exchanging material and for communication (e-learning 1.0)

social software

- wiki
- blog
- podcast
- ...

for collaboration, content creation and networking (e-learning 2.0)
E-Learning: Tools, Tools, Tools …

http://c4lpt.co.uk/top-100-tools-for-learning-2011/
E-Learning Technologies: LMS

A learning management system (LMS) is a programme that supports web-based teaching and learning. Using an LMS, one can easily deliver, manage and track online-courses.

Major features of an LMS

- delivering and presenting learning content
- synchronous and asynchronous online-communication and collaboration
- online tests and surveys
- managing learners, learning content and courses
E-Learning Technologies: LMS

Teamwork
Forums
Learning material
Self-tests
Evaluation

Chat

Community
Library
Course Catalog
Information

Central entry point
Haben Sie schon einen Account? Melden Sie sich hier an.
Geben Sie hier Ihre Anmeldeinformationen ein und klicken Sie auf Anmelden.

Benutzername: 
Kennwort: 
Kennwort vergessen?
Anmelden

Sie haben noch keinen Zugang zum Learning Management System?
Nutzen Sie bitte die Selbstregistrierung. Weitere Informationen erhalten Sie hier.

http://lms.fu-berlin.de
E-Learning Tools: Using Web 2.0

**Figure 3-4: Usage of Social Computing Tools for Learning 2.0 (in % of cases)**

<table>
<thead>
<tr>
<th>Tools</th>
<th>N</th>
<th>% Cases</th>
<th>% Entries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blogs</td>
<td>97</td>
<td>41</td>
<td>19</td>
</tr>
<tr>
<td>Social Networking</td>
<td>95</td>
<td>40</td>
<td>18</td>
</tr>
<tr>
<td>Discussion Platforms</td>
<td>69</td>
<td>29</td>
<td>13</td>
</tr>
<tr>
<td>Wikis</td>
<td>68</td>
<td>29</td>
<td>13</td>
</tr>
<tr>
<td>Photo-/Video sharing</td>
<td>5</td>
<td>23</td>
<td>11</td>
</tr>
<tr>
<td>Podcast/Vodcast</td>
<td>34</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>Folksonomies/Tagging</td>
<td>30</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Virtual Realities</td>
<td>11</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Others (e-Portfolios, Ning, Moodle, Elgg, games etc)</td>
<td>55</td>
<td>23</td>
<td>11</td>
</tr>
</tbody>
</table>

53% combine different social computing tools.

Quelle: C. Redecker et al., 2009
Why E-Learning? – Potentials …

- facilitating course organisation
- providing (multimedia) learning material (audio, video, …)
- facilitating communication
- additional learning places and times
- new didactic possibilities
- supporting different learning styles (explorative learning)
- supporting self-paced and collaborative learning
- considering different learning styles (internal differentiation)
- advancing key competencies (media skills, teamwork)
Why E-Learning? - … and Risks

- Information overload
- Tool overload
- Participants overwhelmed (time, tools)
- Adaption to new role models
- Vague additional benefits
- In-class situations not reproducible in web
2. E-Learning at FUB: Strategy & infrastructure
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
- third-party funding: 60 million Euros p.a.
- „Excellence Initiative“: 150 M€ (for five years)

* Figures exclude human medicine (Charité)
E-Learning at FUB: Overview (1)

mid 90s: e-learning at Freie Universität Berlin
- e-content: learning modules, interactive learning environments
- e-learning center: CeDiS
- steering committee e-learning

2003: introducing central LMS “Blackboard”
- e-learning grants

2005: FU e-learning project (FUEL)
- e-learning integration (Blended learning)
- e-learning strategy
- expanding and establishing e-learning infrastructure (LMS, Web 2.0, e-examinations)
E-Learning at FUB: Overview (2)

2007: Multimedia archives
- ...

Present
- e-examination center
- mobile learning
- large project on improving the quality of teaching
Establishing E-Learning in HE

E-Learning in Higher Education Institutions

- e-learning strategy
- technical infrastructure
- legal aspects
- financial resources
- skilled lecturers
- pedagogical issues
E-Learning at FUB: Strategy

- Interdisciplinary Working Groups
- Decentralized Structures and Responsibilities
- FUEL Concept
- Central Services
- Departments CI, CS Training
- E-Learning Grant Program
- Evaluation
CeDiS: E-Learning, E-Research, Multimedia

Web 2.0

e-Publishing
Open Access

Media & Design

Content Management System CMS

Learning Management System LMS

http://www.cedis.fu-berlin.de
CeDiS: E-Learning Services

Consulting
- faculty and teaching staff
- strategic cooperation with deans
- implementation of e-learning strategy

Training
- e-learning technologies
- content production
- pedagogical issues

E-Learning Technology
- training and consulting
- software operation
- Hotline (phone, e-mail)

E-Examinations
- technical infrastructure
- support in implementation

E-Learning Grants Programme
- administration
- consulting and support

Authoring software
- training and consulting
- rapid e-learning

Evaluation
- improving quality of e-learning
- online surveys
- university wide student surveys

Legal issues
- FAQs, leaflets
- trainings
- legal advice (ind.)
E-Learning Services: Consulting

Services
- Use of Learning Platform
- Content Creation
- Instructional Design
- Grant Program
- ...

Cooperation & Strategy

CEDIS
E-Learning Advisors: central pool of advisors for all departments

DEANS & DEANS OF STUDY

IWM E-Learning Network – Workshop at DKU – Almaty, 29.05.2012
E-Learning Services: Training

Trainings on E-Learning and Web 2.0 in educational contexts

- university teachers and lecturers
- students at Freie University Berlin
- trainers and teachers in other educational contexts

E-Learning Services: Grants

Teaching staff applies
CeDiS recommends
Steering Committee decides +/-
E-Learning projects grow
E-Learning Services: Grants
E-Learning Services: Technology

Experience in
- operation of e-learning applications
- hosting for other institutions/universities
- support
- training
3. Blended Learning at FUB Good Practice
E-Learning: Current state

Blackboard Learn 9.1

since 2004

Blackboard use in summer 2011
- ~1950 course
- ~19.600 (from 34.000) students

Blended Learning, enhancing in-class teaching

More on E-Learning at FU: [www.e-learning.fu-berlin.de](http://www.e-learning.fu-berlin.de)
E-Learning: Current state

Blended Learning is a model of teaching that involves a pedagogically sound combination of in-class teaching and online-learning based on up to date ICT.
Good Practice: Using Blackboard

Distributing learning material
- course material, additional reading
- multimedia e-content (slides, links, pdf, podcasts, videos, …)
- assignments (forum, worksheets, …)
- store students’ results (forum, wiki)

Communication & Collaboration
- discussing topics, exchanging ideas, working together (forum, email, wiki)

Tests & Surveys
- course evaluation (survey)
- self assessment (tests)

Managing the course
Good Practice: Using Blackboard

International Master programmes

European Master in Childhood Studies and Children’s Rights

„A blended delivery of elearning and face to face contact is an integral part of the European MA in Children’s Rights.“
Good Practice: Online-Tests

Blackboardkurs
Spracherwerb
Neugriechisch

Prof. Pechlivanos
Dept. of Humanities
Good Practice: Collaboration

User generated content

SandWiki

Dept. of Earth Sciences
Good Practice: Blogging

Fotos aus Uvs von Steffi, Linda und Lene
26. August 2007 von Paul Schroeder

Kategorie Allgemein | 0 Kommentare »

Steffis Kommentare zu den Fotos
26. August 2007 von Paul Schroeder

INTERVIEWS IN DER STEPPE

Unser zweiter spannender Auftrag soll eine Befragung mehrerer Nomadenfamilien über ihre Viehwirtschaft sein. Lange vor Sonnenaufgang klingelt unerbittlich der Wecker, aber der Fahrer ist so lieb, seine Ankunft selbstständig hinauszuzögern, so dass wir die Sonne vor unserer gemeinsamen Jurte in Ulaangom geniessen können.

Foto 1

Ab der Station unseres Praktikumsterztes ist der letzte km entfernten Sum-Cantar Taari Alan ist der Tierarzt aufgrund einer Fortbildung in der Hauptstadt abkomml. So begleitet uns seine taffe Frau Tsendjav, die als Tierarztgattin beste Kenntnisse besitzt, zusammen mit ihrem Sohn, selbst Tiermedizinstudent, auf einem

Blog succedo, Isabelle Ortiz, Dept. of Humanities
http://succedo-fu-berlin.blogspot.com

Blog, Dept. Of Veterinary Medicine
IWM E-Learning Network – Workshop at DKU – Almaty, 29.05.2012
Good Practice: E-Content

River bed dynamics

Rivers are part of the hydrological cycle, they "complete" the hydrological cycle studied before by concentrating the flow of water precipitated on the surface and taking it to the ocean or endorheic lakes (Bradshaw and Weaver 1995). Thus, rivers like the Gisa river in Ethiopia develop where precipitation exceeds evaporation and infiltration. This applies also for only periodically or episodically surpluses. When this occurs depends on the characteristics of a watershed (e.g., bedrock).

Fluvial dynamics of the Gisa river

The Gisa river receives the water which fell as precipitation and circulated through the drainage basin. Additionally, the river contains the soil and rock fragments which were eroded from hill slopes. Loaded with these materials the Gisa river erodes its river bed and banks. The river transports the material eroded from weathering and erosion on slopes and load of its own activity. Along the river course tributary streams join the river at confluences. These add water along the length of the river. Where the ability of the river to transport material decreases the transported load is deposited as fluvial sediment (Bradshaw and Weaver 1995; Marčík 1997).

To understand river processes it is essential to know about the discharge behaviour which is explained on the following page.
Good Practice: E-Content

Online learning modules
Experimental channel
Dept. of Earth Sciences
Good Practice: E-Content

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 50,000 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 »
Good Practice: E-Content

“Telejura“

- Legal cases presented as episodes of a soap opera with recurring characters (Jenny, Mr. Konradi, …)

- Tools:
  - Youtube
  - Facebook
  - Twitter
  - Podcast

- Target group: law students (beginners)
- combined with a civil law course at FU Berlin

= Blended learning

http://www.telejura.de/
4. Summary
E-Learning at FUB: Future activities

- Provide learning environment in the digital age
  - Blended Learning in M.A.
  - E-Learning 2.0
  - Mobile learning
  - E-Examination
  - …

- Multimedia Archives
- Open access
- E-Research
- International cooperations
Providing E-Learning Services in HEI

E-Learning in Higher Education Institutions

- e-learning strategy
- technical infrastructure
- institutional development
- legal aspects
- financial resources
- skilled lecturers
- personell development
- pedagogical issues
Why consider teachers / lecturers?

e-learning integration can only succeed if

- teaching staff/lecturers have sufficient skills and expertise
- are motivated to employ e-learning
- partake in a critical number

prominent role of teachers/lecturers in introducing and establishing e-learning in higher education

requires specific skills and expertise!
Thank you!

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