

# Sustainable implementation of E-Learning as a change process at universities

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## 1 eLearning at universities – Where will it go?

During the last years substantial resources were invested to exploit the potentials of eLearning in higher education. There are a number of European initiatives (such as the eEurope 2005 Action plan), national programs (such as the Virtual Campus in Switzerland) and not to forget a lot of commitment of individual project teams within many universities.

However, looking at the returns on these investments, we don't see a prosperous eLearning landscape, but get quite a disillusioning picture. Studies from the University of Twente (Collis, 2002) and the University of Lugano (Lepori, 2003) show two things: eLearning has not (yet) changed the teaching in European higher education in a fundamental way, but got stuck at a project level. There are high-quality projects, but also a lot of eLearning ruins – projects, started with great enthusiasm, but were abandoned, after the project funding came to an end. The promises and high expectations toward digital universities were replaced by a “wait-and-see” attitude in many universities.

Will eLearning just become a temporary hype, which will be soon replaced by the next pedagogical trend, or will it become a catalyst for university teaching? According to Rogers' five criteria for the diffusion of an innovation, eLearning has only a small chance to survive: “The relative advantage, the benefits are not clear, not high enough perceived by the potential users, eLearning is not compatible yet with existing structures and values, eLearning is still complex, the easiness of experimenting with eLearning is often not provided, the benefits of eLearning are not easy to communicate.” (Seufert, 2003). Although the overdrawn expectations towards eLearning in the past are now seen more realistically, there are still some advocates, who are convinced, that the potentials of eLearning can be exploited to improve higher education in a fundamental way (Bates, 2000). One question remains, however: What will make this change happen?

## 2 A Change Management approach

Based on a survey among 25 eLearning experts in the German-speaking countries Seufert/Euler identified 5 dimensions for a sustainable implementation of eLearning (Seufert & Euler, 2003):

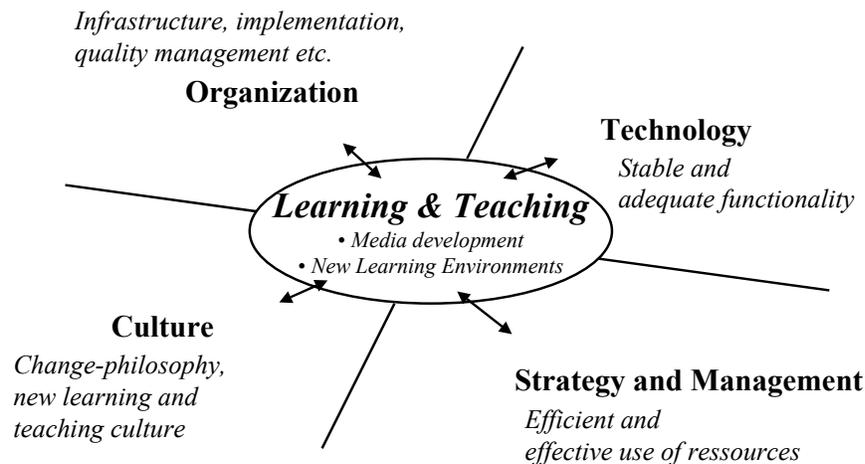


fig 1: dimension for a sustainable implementation of eLearning

These four dimensions form the framework for the change process. Regarding the strategic direction of a change process two approaches are to be considered: a top-down approach and/or a bottom-up approach. At the moment the bottom-up approach prevails in most Swiss and German universities. Innovations in learning are supported via project funding, based on the hope that these projects will be perceived as a role model and will inspire the other faculty members. Unfortunately the diffusion effect of this bottom-up approach is not very strong, as the current university organization is characterized by a strong autonomy of the chairs and faculties (Kerres, 2001). In order to exploit the full potentials of eLearning for higher education, however, fundamental changes have to be made in order to establish an environment that supports the diffusion and sustainability of teaching and learning innovations.

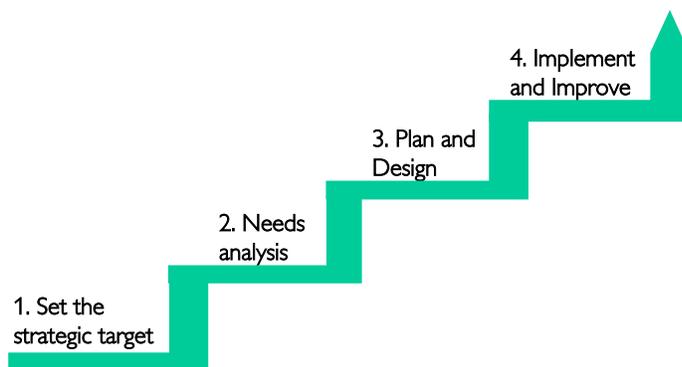


fig 2: Model of a change approach at universities

An comprehensive change process doesn't happen in a single step within a short timeframe, but evolves over a period in several phases. The following thoughts aims at providing an orientation of the specific purposes and challenges in that change process.

### **1. Set the strategic target**

„Institutional change, to be effective, needs to be led from the top, starting with a vision of what the new organization is to be like“ (Brown, 2002). eLearning is not a value for itself. The crucial question an organization has to ask is “What do we want to use eLearning for?” Collis (2002) analyzed the most frequent objectives of ICT policies in higher education institutions, among which we find a broad range of objectives regarding pedagogical (e.g. supporting self-directed collaborative learning), economical (e.g. enhancing cost-effectiveness, generating institutional income), business (e.g. enhancing competitiveness, enhancing status and reputation of the institution) and organizational (e.g. enhancing flexibility) aspects. An important aspect in this phase is, that the eLearning approach has to be aligned with the overall university development. The agreement on a strategic aim has to be followed by a commitment for the next steps in the implementation process.

### **2. Need analysis**

There is no generic “best-practice” solution to implement a change process. In order to realize the strategic approach, it is important to know the specific change needs of the organization. The five sustainability dimensions can serve as guiding principal to formulate the necessary questions to analyze the situational needs for change. This is a very crucial but also very delicate phase as the analysis will bring up important information, but will also raise expectations and fears among the faculty and students. Here are some of the ideas for questions to be addressed in this phase:

#### learning & teaching:

- What is the prevailing learning paradigm?
- How is the faculty development regarding pedagogical competence organized?
- How does the quality management processes for teaching look like?

*... and how does it have to change to support the strategic approach?*

#### culture:

- What is the standing of teaching in comparison with research within the institution?
- What are the experiences, motivation, attitude and expectations regarding eLearning of the main stakeholders (e.g. professors, students, deans, boards)?
- Who are potential change agents within the organization?
- What is the communication culture within the organization?

*... and how does it have to change to support the strategic approach?*

#### technology

- What is the current software & hardware infrastructure for eLearning?
- How familiar are the stakeholders (e.g. academic staff, students) with technology?
- What technological support structures are there?
- ... and how does it have to change to support the strategic approach?

#### organization

- What are the support infrastructure for teaching?
- What are the incentives for teaching/research?
- What are the decisive performance factors for promotions and appointments?
- How is the cooperation within/among the departments organized?
- What are the informal networks?
- ... and how does it have to change to support the strategic approach?

### strategy and management

- What is the current mission of the organization?
  - What are the policies for project funding?
  - What are the legal regulations for teaching material?
  - How is the budget allocation?
- ... and how does it have to change to support the strategic approach?

### **3. Plan and Design**

Having a profound inside situational context is a sound basis for planning and designing of the implementation process. In addition to planning the technical, financial and organizational infrastructure, the human factor is a critical success factor. An innovation will only be adopted, if the key stakeholders are motivated and competent to manage the change. Motivation and ability have to be fostered on the individual, department and the board level (Ford, 1996). The key stakeholders have to be involved in the planning phase in order to prevent a later “not-invented here” syndrom.

Here are some of the planning considerations to be taken in this phase:

#### learning& teaching

- provide faculty development program e.g. workshops, certificates
- integrate the new learning approaches in the curricula
- establish or adapt quality management concept to reward good-practice projects and to ensure a continuous improvement process for teaching offerings.

#### culture

- establish a stakeholder-management e.g. identify and involve change agents and sponsors
- set up target-group specific communication plan, considering various communication vehicles and plan a two-way communication in order to get feedback and raise commitment
- foster knowledge exchange, e.g. organize project lessons learned workshops, inform on committee sessions
- set incentives for innovative teaching environment.

#### organization

- establish central support structures to reduce technical aversions and challenges for the individual in a discreet way and leverage the pedagogical quality
- set legal guidelines especially regarding copyright and intellectual property for the media production
- revise the promotion process to reward teaching excellence and to foster pedagogic competence of the teaching staff

#### technology

- build technical architecture e.g. selection of central LMS, support for standard authoring tools, provide networked workstations for staff and students

#### strategy and management

- set up a funding plan e.g. project funding guidelines
- identify external cooperation e.g. with other universities, companies, commercial eLearning providers

### **4. Implement and Improve**

The most challenging aspect about change is to make the change successful and sustainable (Boyce, 2003). A sound planing is a good basis for the final implementation of the innovation.

However, even the best plan can't anticipate all developments. So while realizing the implementation plan additional requirements have to be included and adopted in the process. An important aspect in the implementation phase is the expectation management of the stakeholders. Academic staff which make their first step with teaching online are often disappointed, that the course didn't work, as they have imagined. Students generally appreciate the flexibility, which virtual learning offers them. However the change from a passive learning attitude in anonymous large lecture halls to autonomous learning requirements in a virtual self-study environments is not always appreciated by the students. The postulation of constructivist learning settings to enable students for the life-long-learning requirements collides with traditional students expectations to be told what subjects to learn for the exam. Another important aspect in the implementation phase is the identification and handling of resistance (Brake, 2000). The implementation of eLearning brings along changes that are not welcomed by every individual or group within the organization. Concerns are often not expressed openly, but act as "hidden agendas", covered by other official arguments (Doppler, 2002). Open and honest communication as well as a sound stakeholder management is a critical success factors within this phase.

### **3 Case study: Implementing eLearning at the University of St.Gallen**

This last chapter outlines the strategic approach of the University of St.Gallen, which integrated eLearning as a core part of the on-campus study programs:

The University of St.Gallen is a renown AACSB and EQUIS accredited federal on-campus business school with around 5.000 students. Since winter 2001/2002, the University of St. Gallen is introducing a completely new study system, which corresponds to the degrees of the Bologna Declaration (Bachelor, Master Degrees). One core element of the reform is that the students will spend 25% of the study time in the form of autonomous study, supported by new educational technologies (Euler & Wilbers, 2002). As part of this extensive study reform the adoption of eLearning was fostered by a strategic top-down approach.

As for the technical implementation the University St. Gallen decided to support only one platform for the whole university; the "StudyNet" which is based on Lotus Learning Space. Regularly workshops are offered by the central computing services to the academic staff to acquire the technical skills for using the platform. The technical support center for the platform was also incorporated in the computing services. For complex media production projects there is cooperation with IBM Learning solutions.

The didactical support is provided by the Institute of Business Education and Educational Management, chaired by Prof. Dr. Euler, in the form of individual coaching and project consulting. As teaching has traditionally a strong standing within the University of St.Gallen, most faculties are open to experiment with the new learning environment.

Funding of eLearning is basically regulated in the framework of the study reform, however there is an additional budget to support elaborate media production.

Board meetings and the university newspaper are some of the communication vehicles used to raise the awareness and the acceptance for the reform. In order to support the knowledge transfer among the faculty members, lessons learned sessions take place on a regular basis to discuss different project approaches. The present experiences and lessons-learned reflect a general high level of acceptance and motivations by the faculty members, point up benefits, drawbacks and challenges of the individual project approaches and provide stimulation for further improvements (Euler & Wilbers, 2003).

## 4 Perspectives

eLearning is not a self-runner. Even though the potential of eLearning as a catalyst for teaching innovations is recognized, the current bottom-up approaches taken by many university won't be enough to exploit these potentials (Kerres, 2002). The sustainable implementation of eLearning requires an encompassing change process which has to consider the strategic, didactic, organizational, economic and cultural dimension within the university –otherwise eLearning will remain a nice gimmick in the niches of the university.

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