# Title: Formulating eLearning Support Strategies in Universities

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**Name of Author(s)**

Franziska Zellweger Moser

**Contact Details**

Franziska Zellweger Moser

University of St. Gallen, Institute for Business Education
and Educational Management
St. Gallen
Switzerland
+41-71-2243156
franziska.zellweger@unisg.ch

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Abstract

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In this contribution it is explored how strategic management practice could assist a coordinated approach toward eLearning and what elements of an eLearning support strategy are critical for a successful integration of eLearning in university teaching.
After reviewing the literature on strategic management in higher education regarding eLearning and the presentation of the research methodology, conditions for support are identified as an important starting point of a more coordinated approach. The final chapter points to strategic issues to be tackled on different levels. It includes excerpts of checklists with critical questions regarding the formulation of an eLearning support strategy.

# Title: Formulating eLearning Support Strategies in Universities

## 1. Introduction - The Lack of a Coordinated Approach

Since the early developments of the Internet in the mid 1990s, educational technology has been an important topic in higher education institutions. Many predicted that not only could eLearning[1] improve the quality of teaching and learning but it could help to save costs, and provide access to education to new learner groups (Rosenberg, 2001). Yanosky et. al (2004) observed that market penetration of Learning Management Systems in higher education has reached over 50% in the American market. McCredie (2003) states that IT infrastructure is an essential criterion upon which students and researchers choose their school and therefore an adequate infrastructure is an indispensable duty for a university willing to remain competitive.
Nevertheless, today, 10 years into the eLearning age, it can be stated that eLearning only made modest inroads in changing teaching in universities (Zemsky & Massy, 2004). Although faculty support has been identified as a critical factor, many underestimated the complexities of a successful integration of eLearning (e.g., Shirley, 2001). The lack of a coordinated approach is largely responsible for the current situation (Shaw & Zabudsky, 2002).
In her dissertation, the author (Zellweger Moser, 2006), drawing upon the adopter classification of Rogers (1995), observed in various institutions a negative self-reinforcing dynamic as illustrated in Table 1.

*Table 1.* Negative Self-Reinforcing cycle of eLearning Adoption

| | Innovators | Early Adopters | Early Majority | Late Majority | Laggards |
|---|---|---|---|---|---|
| **Characteristics** | Venturesome<br>Cosmopolites<br>Technology Driven | Respect, Localites<br>Opinion Leaders<br>Positive Attitude toward Technology | „Be not the first by which the new is treid, nor the last to lay the old aside“ attitude | Skeptical, Adopt as a consequence of peer pressure or of economical necessity | Traditional, the past is point of reference |
| **Primary Motivation** | Very diverse individual goals | Unhappy with Lecture Style Teaching<br>Fascination with Technology | Extrinsic | | |
| **Barriers** | Uninfluenced by institutional environment, selfsustaining regarding the technology | Inappropriate Support<br>Unreliable Technology | Negative Peer Experiences<br>Limited Time Committment<br>Minimal course design | | |
| **Experiences** | Students are open to new things | Negative Student Feedback | Negative Student Feedback | Do not become involved with the process unless they are forced. | Are not involved in the process |
| **Result of Reflection** | Motivation to Improve | Abandon Technology | Abandon Technology | No Adoption | No Adoption |

It was observed that in many institutions there exist a number of venturesome innovators who push the opportunities offered by ICTs to the limits and demonstrate the potential of eLearning. Early adopters who are unhappy with the dominant lecture style of teaching wish to adopt some of these practices. However, due to unreliable technology and the lack of knowledge on how to incorporate technology into their teaching, many faculty are disappointed by the results and some even received negative student feedback. The negative experiences of these faculty opinion leaders stall a more widespread adoption.
A more coordinated approach toward eLearning support would prevent many of these negative experiences in an early stage of the adoption process and would be key for a wide spread adoption of high quality eLearning. Therefore, in this contribution it is explored how strategic management practice could assist in a more coordinated approach toward eLearning and what elements of an eLearning support strategy are critical for a successful integration of eLearning in university teaching.

1 For the purpose of this work, the term eLearning will refer to teaching activities which involve educational technology. Neither is it narrowed to selected technologies (e.g., online) nor to specific paradigmatic positions regarding teaching and learning.

After a review of the literature on strategic management in higher education regarding eLearning and the presentation of the research methodology, conditions for support are identified as an important starting point of a more coordinated approach. In the final chapter of this paper, recommendations are formulated on how eLearning support can be approached more strategically.

## 2. Literature Review - Strategic eLearning Management

Strategic management has been postulated as an important approach for higher education long before the emergence of Information and Communication Technologies (ICTs). In the literature it is often referred to the seminal publication of Keller (1983) who initiated the discussion in higher education in the early 1980s at a time at which in the United States the aftermath of the baby boom was expected to lead to decreasing student numbers (e.g., Dooris, Kelley, & Trainer, 2004, p. 7). In these economically difficult times, new methods for efficient planning and organizing were needed.
Keller (1983, p. 5) argued that universities represent one of the largest industries but are among the least well managed. With strategic planning, Keller (1983, pp. 143-152) suggests institutions to take an active stance regarding their position in history and focus on the changing environment. Strategic planning implies decisions on possible futures.
Strategic management scholars for one discuss what constitutes "good" strategy (Andrews, 1971). Bleicher (2004, p. 291) defines four fundamental elements of a strategy as follows:

- It contains an analysis of the current position of an organization.
- It is followed by the determination of a desired future state in order to overcome the gap between current and desired state.
- It specifies required technologies, competences and resources.
- It determines applicable criteria and standards to measure success.

For higher education apart from focusing the resulting strategy, attention to the process of strategy building is even more illuminative. In daily practice, strategic management is often affiliated with top management activities. However, it is contested whether the formulation of strategy building follows a strictly rational process. Rather bottom up initiatives need to be incorporated and political constellations considered (e.g., Mintzberg & Walters, 1985).
Similarly, Altbach (1998, p. 68), referring to the American discussion, reminds that the absence of a master plan for higher education does not mean that change has not occurred in different ways in different institutions. The American university is stable at the core but flexible in the periphery. The result of this change without central planning is diversity in the academic system and prevented a wholesale adoption of policies that might later be found to be erroneous. The lack of central planning does not mean the lack of direction.
For years, in higher education strategic management has been practiced regarding different issues with varying success (see Dooris et al., 2004). Nevertheless, for the state of strategic planning in eLearning Chang (2004, p. 6) draws a dismal picture. Even though more than half of the campuses have strategic plans for educational technology, many of these plans do not touch upon the key components that an overall educational technology strategic plan should include.
To explain this state, Bates describes four stages of development regarding eLearning practice (Bates, 2004):

1. In the first stage lone rangers are experimenting with technology individually.
2. In the second stage lone rangers start to put pressure on the university to provide help and resources.
3. Stage three is followed by a stage of rapid uncoordinated activity.
4. Only in a fourth stage an institution starts thinking strategically.
5. In the fifth and last stage a sustainable and high quality use of eLearning in selected areas or for specific target groups is reached.

At the end of 2004, Bates estimates that the majority of institutions reached stage three.

Consequently, various authors formulate recommendations regarding successful strategic eLearning planning in higher education:
Stockley, drawing from evidence at Canadian universities, recommends to avoid standardized approaches but to consider the institutional culture. However, the process should follow some basic principles: It should be coordinated across campus, reviewed and revised regularly, integrated, and functional (Stockley, 2002, p. 58).

Zawacki-Richter (2004, p. 242) specifies requirements of support strategies as follows: It shall include a strategic planning process that establishes goals and commitment, the development of technological infrastructures and support organizations, systems of incentives as well as adequate resources.
Although these are valuable references on how to approach strategic planning regarding eLearning, a deeper understanding of these issues is missing.

## 3. Methodology

The specific questions under study were approached with a qualitative research methodology in context of the author's doctoral thesis (Zellweger Moser, 2006). Data from three case study institutions, all located in the Boston metropolitan area (Massachusetts Institute of Technology, Tufts University, Northeastern University), was collected due to the substantial impact of their eLearning activities and/or the presence of explicit strategy processes. On each site 12-15 people, representing broad perspectives on eLearning management, were interviewed. Document analysis and participant observation provided further insights. To validate initial findings, focus-groups at each institution were organized.
The within-case analysis for this research followed common case study research practice. This procedure delivered deep insight in and familiarity with the individual case and provided an important basis for solid cross comparison (Eisenhardt, 1989). A grounded theory methodology (Strauss & Corbin, 1990) was then applied to reach more abstract insights. During the research process the qualitative data analysis software AtlasTI was deployed to facilitate the coding and retrieval of data, the linking of information toward theory building and to apply graphic network functionality (Miles & Huberman, 1994, pp. 313-314).

## 4. Findings - Analysing Support Conditions - A Strategic Core Task

As illustrated in Figure 1, support activities are directly reflective on the prior working conditions. In this empirical study structural conditions shaping the structural working environment as well as cultural conditions expressed through values held by support groups were identified.

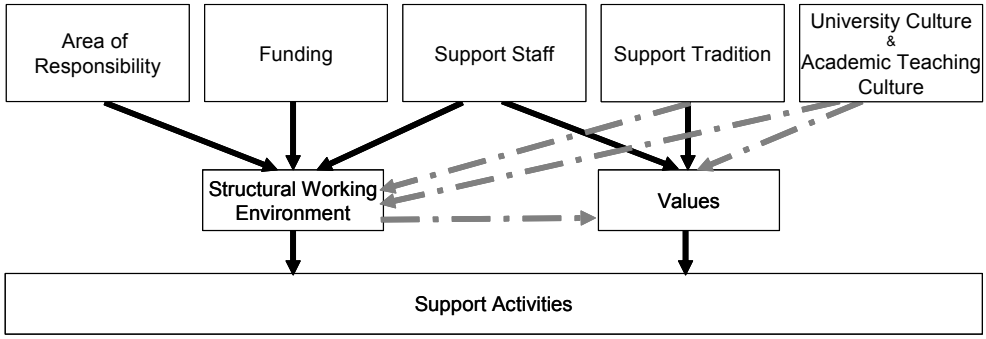



*Figure 1.* Cultural and Structural Conditions

*Area of Responsibility:* For support groups the definition of a clear area of responsibility is an important structural condition. It is relatively well codified what libraries or IT services contribute to the well-being of universities. This is less the case for the recently created eLearning units. They are heavily occupied with figuring out, which from the many needs they might prioritize. This struggle becomes visible in the following quote by the head of academic technology at Tufts:

> *"But at least we have identified what the key areas of focus should be for this university and we are pretty much there as far as staffing at a central level. So I am proud of that. I am proud of being able to say here is what we need the focus on" (Tufts2, 57:2).*

However different eLearning units interpret their mission, some commonalities exist such as the focus on faculty, the support of learning management systems and the clearing house function for eLearning related matters.

*Funding:* In this research not only a wide variety of missions were identified, support units are also confronted with different funding models that influence their support behaviour. As illustrated in Table 2, IT support often disposes over a centrally funded lump sum budget that is defined in the regular budget process. IT is mostly sponsored by administrative funds whereas libraries traditionally rely on academic

funding (provided by the provost).

*Table 2.* Funding Model of Central IT Support

| Source | Sponsor | Mode | Permanence |
|---|---|---|---|
| Central | Academic | Lump Sum | Regular Budget |
| Decentral | Administrative | Fee for Service | Temporary |
| External | | | |

In comparison, eLearning support in some instances has not been considered in the regular budget cycle yet as the following quote from an MIT faculty member illustrates:

> *"They still see it as an experiment where it is no longer an experiment. It's going to be 9 or 10 years in a year or two and I think it should be seen in the same delivery importance as having a microphone in the classroom or having a blackboard that works, or having classrooms where the walls don't fall down. So the server doesn't crash, the walls don't fall down in the classroom. So it's still seen in a way 'oh you can have soft money for that!'. That's the main challenge. I think the web has to be seen in the same way as you see the rest of the infrastructure" (MIT5, 19:13).*

Finally, it needs to be stated that funding sources of a support units are often disconnected from its mission as the (often central) sponsor of support service is not congruent with the (local) customer. In an optimal environment in which maximal credibility for eLearning activities is ensured, support units rely on decentralized academic sponsors that support eLearning activities in a regular budget cycle.

*Support Staff:* A critical insight was the importance of cultural conditions for effective faculty support and the striking variance of support subcultures (Zellweger, 2005).
Support staff are both an important structural and cultural factor. The individual background in terms of experience and education, the permanence of work contracts as well as the recruiting process (internal/external) shape the approach to eLearning support (structural aspects). Due to the high degree of freedom resulting from an unclear "area of responsibility" the attitude and priorities of eLearning support staff influence different support subcultures (cultural aspects).

*Support Tradition:* The support traditions cannot be influenced directly but an understanding for the different traditions and values determining the institutional reception and expectations of faculty toward a support unit are critical for the management of support activities. Furthermore there exist many interfaces between the different support groups (e.g., IT services, libraries, eLearning units, teaching and learning centres, audio/video support) that need to be managed in a considerate way. A librarian at Northeastern University stretches these sometimes subtle differences while referring to a discussion conducted with an interdisciplinary support committee.

> *And we started discussing computing literacy (...) and we had many discussions to try to define the difference between computer literacy and information literacy. And that I think gets to the core what we are talking about and finally we had to just write it out and define it for everybody so that we could understand how different those are although they are essentially related but just that there is a bit of a.. whereas one unit would be more focused on one and an other would be more focused on the other (NEU10, 47.9).*

*University Culture/ Academic Teaching Culture:* One might also expect that support cultures vary depending on the institutional culture. However, the variance of support subculture across the studied institutions is surprisingly small and lines of conflicts between support groups are almost identical.

## 5. Implications - Levels of Strategic eLearning Planning

Favourable support conditions influence the quality of support and thus, need to be shaped in a strategic manner. Strategic management regarding eLearning support shall occur on different levels. An eLearning strategy needs to be aligned with a more general mission of the whole institution (Level 1). In the following, the questions regarding eLearning support are focused on the eLearning strategy level (Level 2) and more specific on the level of an eLearning *support* strategy.

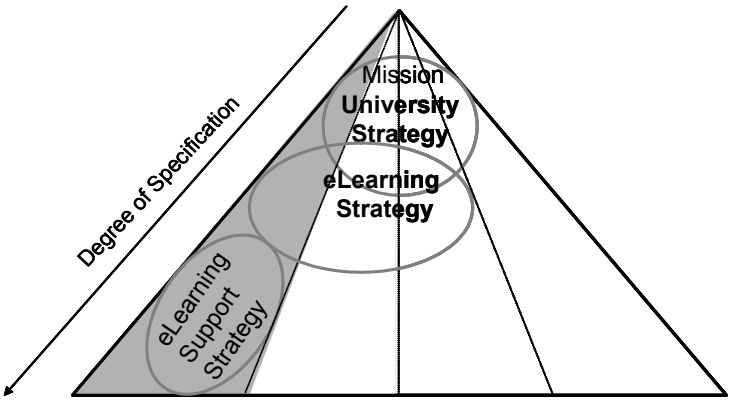



*Figure 2.* Strategic Guidelines for eLearning Support on Different Levels of Specification

a) To allow for coherent support, a widely shared eLearning strategy needs to be developed giving broad answers to what eLearning products and services are offered to what kind of customers. It must also be decided on implementation issues such as communication concepts, revenue models, or a stance toward partnering. Referring to Figure 1, it is also important on this level to define structural conditions for eLearning support.

In the following, excerpts of a checklist are presented. For a more detailed derivation of theses guiding questions it is referred to Zellweger Moser (2006).

| Critical Aspect | Question to Ask | Relevance |
|---|---|---|
| Clear eLearning strategy | Does an explicit, communicable mission exist for support units that ties into the overall eLearning direction of the institution? | Secure the alignment of support activities with overall goals feasible for faculty. |
| Structural Conditions: Area of Responsibility | Is the specifity of goals adequate? | Enough freedom for individual units for the realization of their own way of doing.<br>Optimal coordination of missions. |
| | Is it clear to whom support units are accountable?<br>Is the scope of support work clearly defined? | |
| | Regarding the scope of support work is the institutional anchorage adequate (central vs. local)?<br>How is the proximity to faculty needs secured? | |
| | Are economies of scale realized? | |
| | How is dispersed knowledge of local support workers shared across the institution? | |
| Structural Conditions: Funding | Are adequate resources provided for eLearning support? | A gap between expectations and funding is detrimental to the standing of support units. |
| | Does the funding model reflect the strategic priorities?<br>Does the funding model create inadequate behaviour?<br>Compared across all eLearning support units are the funding models adequate? | It is critical to reflect the impact of a specific funding model and differences among support groups on the behaviour of individual staff. |
| Structural Conditions: Support Staff | Are skilled and experienced people in charge of the support activities?<br>Does a balance exist between skilled permanent staff and flexibly employable outside experts and students?<br>When new eLearning support positions and units are created, is a person with relevant skills and attitude hired? | There needs to be a balance between deep knowledge on institutional culture and processes to fulfil support tasks. External hires, however, provide relevant experience from other institutions and a fresh look at the current activities. |

b) On the basis of an encompassing eLearning strategy, a concrete eLearning support strategy may be derived. A sound support business model shall be developed including the definition of customer groups and respective services. On this level the different support units need to be involved in this process. Therefore an explicit reflection on cultural conditions shall occur on this level.

Excerpts of a checklist are presented as follows.

| **Critical Aspect** | **Question to Ask** | **Relevance** |
|---|---|---|
| Cultural Conditions: Support Staff | Are support workers aware of the difficulties that may emerge from the teaching and learning culture at research universities?<br>Are support workers aware how its values are different from the academic culture and from the culture of other support units? | It is critical that support workers deal with cultural premises in a considerate manner to gain trust of faculty. |
| | Do the heads of the support units reflect an adequate culture and attitude regarding faculty eLearning support? | The selection of the head of an eLearning support unit is critical regarding the focus and approach of faculty support. A high level of service attitude is required. |

## 6. Conclusions and Outlook

Although strategic planning is a contested concept in higher education, universities becoming involved with eLearning need to answer strategic questions regarding eLearning support in order to avoid a negative self-reinforcing adoption cycle as presented in Figure 1. Unless early adopters and the early majority may count on a coherent support network, they are in danger of abandoning educational technology due to early failures. In order for such a support to be effective, more thought needs to put into the formation of favourable structural and cultural conditions for support units.
In this paper the critical questions to be answered in an eLearning support strategy are outlined or in other words suggestions for the development of "good strategy" are expressed.
Equally important to identifying and answering the right questions is the design of a strategy formulation process that involves the critical people, is sensitive to bottom up initiatives and that takes into account the specific mechanisms of decision making in higher education institutions. In subsequent research projects, it would be interesting to focus this process aspect of strategic planning and consider issues of adequate participation in the process, methods of planning, and communication strategies.

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