

Education Portal Strategy

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INTRODUCTION

Education portals promise to be an integrated point of entry that provides all stakeholders of an education body, frequently referred to as campus or university, with a single, personalized Web interface to all information and application resources in a secure, consistent, and customizable way (Kavavik, 2002) through multiple devices and multiple access methods that can be utilized to retrieve all appropriate information and learning resources anytime, anywhere, with anything. Hence, they allow more interaction and collaboration among students, faculty, staff, and alumni (Barratt, 2003). Properly implemented, portals can be a strategic asset for the institution. In that sense, they do far more than a traditional Web site of static information ever could (Strauss, 2002).

The promising opportunities notwithstanding, developing an education portal can be a key strategic technology decision since it can impact the entire campus community in the way it learns, teaches, communicates, and interacts. Therefore, the primary challenge for educational institutions in prior to the implementation of a portal solution is to develop a deliberate *portal strategy* based on a careful analysis of long term and short term needs and a clear vision with concrete strategic goals (Katz, 2000, 2002).

However, the international portal experience in the educational sector over the past decade shows that various strategies have been pursued in very different institutional environments and with very different objectives (Perraton, 2000). This has been driven to some extent by the fact that the portal concept as other technologies in open and distance learning (ODL) has been first applied and adapted to higher education and professional training environments, but also establishes gradually in primary and secondary education institutions (Owston, 1997; UNESCO, 2000).

Therefore, looking at the development approaches, lessons, comments, and concerns from concrete projects, it is primarily the diversity that stands out. This article sheds light on those aspects that can serve as a common basis for an integrated, generic approach toward portal strategy. It understands the four directions of impacts on learning, teaching, *communication*, and *interaction* of education portals as strategic dimensions along which strategic goals are set and embedded in an institutional context.

The generic approach may guide portal strategists in governing bodies of education portals through the delineation of strategic success factors and development priorities at different stages of portal development independent from the educational sector. Therefore, the terminology of this article refers, in a common sense, to teachers and students instead of differentiating these broader categories into professors, faculty staff, trainers, or pupils. Educational institutions such as universities, colleges, or schools are collectively termed campus.

FOUNDATIONS OF EDUCATION PORTAL STRATEGY

Portals in the field of education are a widely discussed, but nonetheless often misunderstood term. Therefore, the view on education portal strategy should not lack a brief explanation of the conceptual foundations and the terminology. The general portal concept is based on three essential features: personalization, customization, and standardization. The main purpose of personalization is to provide information tailored to the needs of a visitor such as given through the different teacher and student roles these visitors might have in the portal environment. The individual must be able to customize, thus, have complete control over the information displayed on the portal pages. Standardization refers to the user interface as single sign-on (SSO) access point to a variety of tools and resources (Kavavik, 2002).

Portal related initiatives exist at many campuses, but formal strategies for a portal, its use, and its benefits have not been created. Most of the development has occurred in the form of small, targeted projects designed to enhance the functionality of existing Web sites. These projects have been prompted by specific educational or administrative needs (Gleason, 2001). An essential contribution to make the education portal concept more consistent throughout the variety of different institutional and educational specificities is the pyramid model of Oblinger and Kidwell (2000). Based on this approach, success factors for the implementation of education portals can be classified at three levels: *governance*, *services*, and *infrastructure*.

In this sense, the designation of leadership and a concentration of decision-making responsibility are keys to the development and implementation of a portal, providing confidence to campus that it can place the responsibility and trust in the hands of a knowledgeable individual or an informed and dedicated group of individuals. This governing body must be capable enough to conceptualize the entire portal organization and processes, and to control the technical, policy, and financial portal infrastructure. Community involvement and input can play an important role in finding a deliberate balance of necessary competencies.

The service level presents the educational core of the portal. It addresses all aspects of learning, teaching, and administration that a campus intends to capture by electronic means. The service orientation can be both teacher-centered and student-centered according to different teaching and learning models, and types of learning content and applications. Hence, such models and different types of education portals, in a gradual implementation process also referred to as different stages of portal implementation, are duals of one another (UNESCO, 2002a).

At the infrastructure level, the technology architecture, the financial endowment, and the policy framework delineate the vital environment of education portals. The choice of the appropriate overall technological infrastructure is a make-or-buy decision. On the one hand, this depends on resource constraints in terms of in-house development capacity and financial resources. On the other hand, regarding the expediency and the uniqueness of existing file systems and the risk to lock the campus into a single proprietary vendor, the decision must be based on clear requirements on flexibility and adaptability of purchased solutions and legacy systems (Looney & Lyman, 2000). Efficiently, an education portal implementation must consider all requirements at the infrastructure level in order to assure its accurate, long-term operation (Gleason, 2001).

STRATEGIC SPACE OF EDUCATION PORTALS

Looking at the factors classified by Oblinger et al. (2000), the prerequisites for a successful education portal implementation and the global portal environment of campus-specific variables may very well differ from institution to institution and may shape the educational opportunities of portals in very different ways. Whereas, governance and infrastructure appear to play more of a role as determinants of the institutional environment in which a portal strategy is embedded. Thus, the greatest source of strategic development opportunities of education portals is the service level.

The focus on services realigns the discussion of education portal strategies to the core of education portals--open and distance learning (ODL). Katz (2000, 2002) specifies four dimensions that capture the strategically most significant aspects in this field: teaching, learning, communication, and interaction.

TEACHING AND LEARNING

Teaching and learning are best thought of as interconnected and interrelated. However, the subject falls into two dimensions when it is regarded in the context of portal strategies and concrete strategic decisions on the design of e-learning systems (ELS), organizational and processes-related issues. The primary interest here is how far and how consistent a campus intends the portal to support and enhance teaching, learning, and related administrative processes (Oblinger, 2001).

The distinct dimensions differentiate the common terms *e-learning* and ODL toward a strategically meaningful view, and put the ELS concept in the focus of education portal strategies. This is key to creating a beneficial learning environment with a positive impact on both effectiveness and efficiency of the teaching and learning process, whereas, effect refers to qualitative educational objectives on certain competencies or knowledge. Efficiency relates to the time or effort needed to achieve this objective. The wide ELS spectrum can roughly be divided into the areas learning management systems (LMS) to administrate learning and teaching processes, and learning content systems (LCS) to provide adequate support in the acquisition of knowledge or competencies (Becker & Knackstedt, 2004).

Courses and curricula define the educational profile of a campus as well as a portal. Therefore, content development and the implementation of appropriate applications to deliver this content are crucial issues in LCS. Comprehensive, well-designed resources may stimulate students' self-directed learning. Whereas, to achieve an optimal online resource pool it is essential to recognize that existing conventional content cannot be transferred directly into technology-supported courses (UNESCO, 2002b). Therefore, the quality, scale, and scope of the portal resources is at least to some extent a question of the design and development capabilities of teachers who are often considered as the content producers (Alpar, Grob, Weimann, & Winter, 2002). Another important aspect of ELS relates to the administrative support of students and teachers. LMS may replace formerly separate staff functions so that teachers or students themselves can perform administrative tasks with little effort and parts of the original campus administration become obsolete (Hawkins, Rudy, & Nicolich, 2005).

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