

A Model of Virtual University

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ABSTRACT

This article aims to explain elements, structure and process of virtual university. The potential of communication media and networks has provided the means for worldwide communication "online" and this opportunity can be used in education. In this way of education provides effective education process also improve the cost-effectiveness.

In this model, work team, comprised by teachers which occurs TV-producers, students, a technology-specialist, a visual aids producer, and an instructional designer; student profile which may be different for every individual and it has to be considered in the design of the learning activities; student action which means the activity that the students realize to learn and to develop concepts, skills and attitudes and the communication media play key roles in model of Virtual University.

A understanding of Distance Education History and Theory of Distance Education is necessary to understand the differences between Distance Education and the potential that a virtual university could offer. The conclusions of virtual university depends on the consideration of all elements of this model and its relations.

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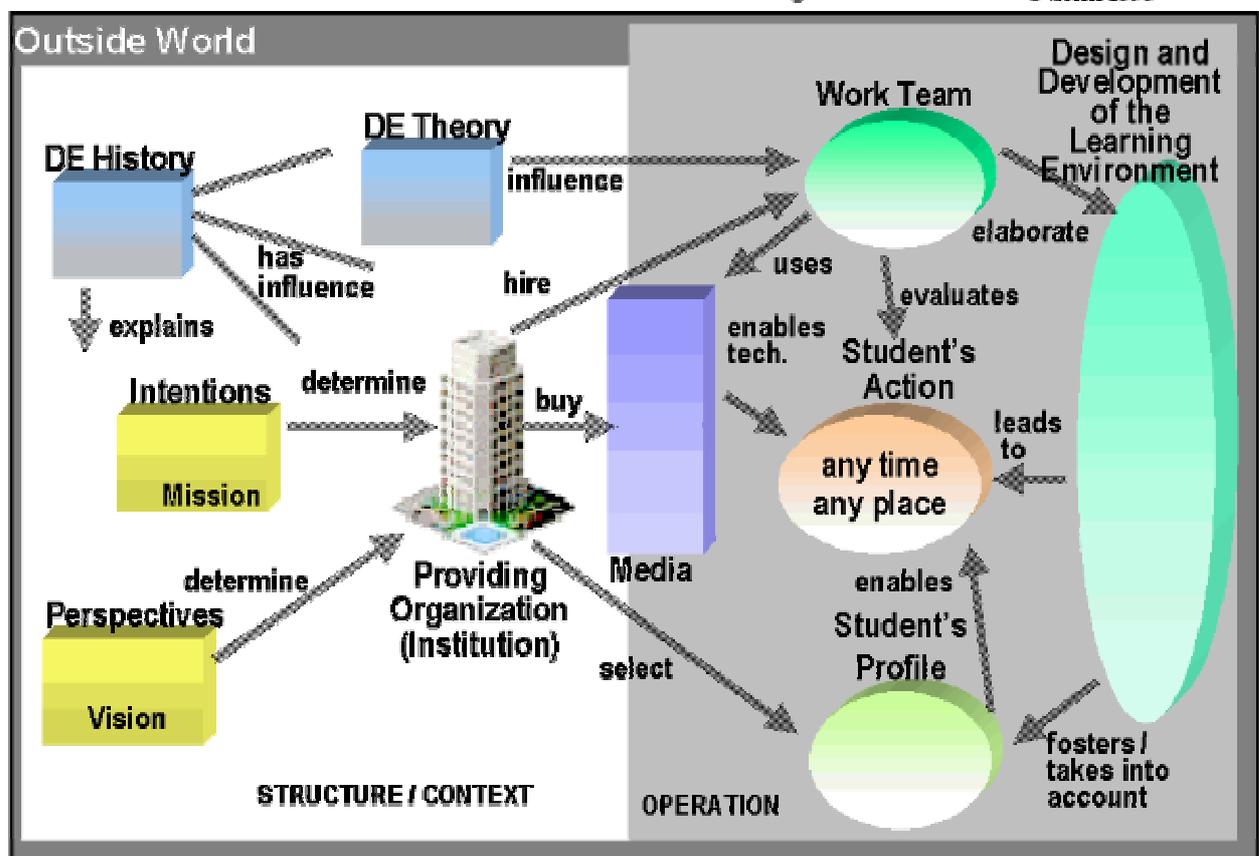


Figure: 1

INTRODUCTION

This presentation exemplifies a virtual education model, which identifies several important elements of a virtual university. The presented model helps to analyze important facts and their relationships in a virtual university. It fosters the process of decision-making (Figure1).

The potential of communication media and networks has provided the means for worldwide communication "online". In education it has enabled a vision of large groups of students interacting about the course content through different technologies (Harasim, Hiltz, Teles, and Turoff, 1995). Self-directed learners, organized into small groups and provided with sufficient learning material could participate in significant learning experiences and thoughtful interaction. That's why many educational institutions invest money in information technology: they believe that this approach would improve the cost-effectiveness (Bates, 1997) and more students could take benefit from the same resources. Unfortunately, in these institutions there is a clear focus on, and significant investments in technology –which is only one element of the presented model– and not on the way this technology is employed. This emphasis may result in an inappropriate methodology and a poor use of this technology, making the concept of virtual university an inefficient but expensive one. Using this model it is easy to identify the requirements to obtain high quality education or significant learning outcomes in a virtual learning environment.

One important and fairly obvious element of this model is the work team, comprised by teachers, TV-producers, students, a technology-specialist, a visual aids producer, and an instructional designer. This team, working in a democratic manner, elaborates and develops the learning environment comprised by all material, planned activities and interactions in the learning process that intend to make the students learn. The process of facilitation of the learning activities is included in this element. The circumstances that foster or hinder significant interaction between students are often ignored. Meaningful communication is a consequence of a good instructional design and does not occur without planning and tutoring. Several assumptions about how students learn and what significant learning activities could be like lead to certain designs of this environment. Courses should be elaborated and evaluated together with members of the community, which will take the course.

Another element is the student profile. He or she possesses knowledge and skills to use communication media, to work in a group, to communicate and collaborate with others. This profile may be different for every individual and it has to be considered in the design of the learning activities. Before starting a course it is necessary to verify if the participants have all necessary skills and media for participation. Previous training might be inevitable (Zhu, 2000).

The most important element is the student action, this means the activity that the students realize to learn and to develop concepts, skills and attitudes. The instruction team has to verify and guide this real student activity, because on this activity depends whether the student will be a successful learner or not. Exercising these activities the learner demonstrates significant learning outcomes, testing them at the end of the learning process may be too late.

The communication media are a very important part of a virtual university. They enable the communication at any time and in any space where a connected computer is available. But these media are not only meant to be bought and to be put in place. They need two different kinds of support services to work well: first, the administration of programs and servers, second, the assistance for the students to administer their PCs and software. The media should be elected to fit the needs of the learner, in most cases the newest and most sophisticated technology is not necessary. Cheap and easy to use media like e-mail should be preferred. These reflections will help to focus on lowest cost solutions regarding to the use of media, prices and instructional design of the courses.

A virtual university is an organization, that is, a public or private institution with the right to certify learning outcomes. It offers educational services and support services to its clients. The obstacles of today's organizations like slow bureaucracy or a rigid hierarchy might hinder innovational processes.

The operation of an organization may reflect beliefs and values, which its members consider important as foundations for their thinking and behavior, certain perspectives. This does not refer to a theoretical statement, the written vision of the institution, but to a concrete and observable behavior, from which this perspective might be inferred. In some universities it seems most important that the actors of the instruction process and students have media in use, which would indicate a technological perspective. In other universities the most important thing is that the employed methodology leads to significant learning outcomes, which would indicate a pedagogical perspective. A third tendency would be economic, the question if the institution makes profit or at least does not generate debt. Virtual university can be seen under psychological, philosophical and many other perspectives, too. This perspective determines how the operation of the institution is administered and how success is evaluated.

The intentions of a virtual university should be derived from its operation, not from its declared mission. Many of the new "virtual universities" are created to offer their services worldwide, to earn money. Intentions in an educational institution should be pedagogical, the will to educate people.

A understanding of Distance Education History is fundamental for the concept of virtual university. Beginning with the post schools, passing schools of the air and television schools, Computer Networks were incorporated in education. The analysis of historical facts shows that the idea of a virtual university is enabled by the accessibility of existing communication media, not by new programs or sophisticated innovative technology. Historically, the focus on technology without recognition of past experiences distracts our attention or interpretation of virtual education.

Theory of Distance Education is necessary to understand the differences between Distance Education and the potential that a virtual university could offer. Distance Education as a "large-scale approach" offers the same course to hundreds or thousands of students at the same time (Peters, 1993; Holmberg, 1995). Well-prepared teaching material is distributed to the participants. Interaction with teachers or other students is minimal. Teaching means the effective delivery of content (Pratt, 1997). Opposed to that, the design of a participative environment in a virtual university is a complex issue. Many skills from teachers and learners are required to achieve informed interaction. An open discussion is difficult to attain if a critical number of students should get actively involved into the process. Theories of independent study, transactional distance, student autonomy and industrialization should be considered in a theoretical model.

Perspective and intentions of the providing organization will lead the administrators of the virtual university to the offer of certain kinds of programs at a certain cost. Regarding to perspectives and intentions they will hire a work team, buy media and select students with a specific profile. These preconditions for the work team will lead to the "Design and Development of the Learning Environment", which will guide the students to their learning activities. It may be possible that the perspective and intentions of an institution have more influence on the teaching-learning process than teachers and students. The institution prescribes the working and learning conditions of its members. Success or failure of an innovative concept of virtual university depends on the consideration of all elements of this model and its relations.

Editor's Note:

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