CHANGING TRADITIONAL UNIVERSITIES INTO UNIVERSITIES OF THE NEW MILLENIUM

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Changing universities into virtual universities of the new millennium represents a methodological challenge. Traditional universities are conservative institutions, not used to such radical change. Successful change thus presupposes a profound understanding of both the traditional and the virtual university culture, and an appropriate method for implementing change must then be selected.
In order to fully understand the challenges we shall meet in the change process, I shall in this paper first analyse the differences between traditional university culture and the new virtual university culture. The analysis will comprise the characteristics of distance education. Next, two interconnected challenges will be discussed in more detail, i.e. the new role of the university teacher and the change from traditional transmissive teaching models to collaborative, experiential and situated learning models in virtual distance education. Finally, I shall discuss the concept of structured concrete experimentation as an appropriate method for changing universities of today and gradually transforming them into genuine learning organisations of the next century.

TRADITIONAL AND VIRTUAL UNIVERSITY CULTURE

The traditional university may be characterised as a unique type of organisation, with its own standards, norms and ideals, living a life of its own, not totally but to a high degree separated from the outside world. It is in fact a conceptual cornerstone that the academic quality of the teaching and research activities going on at traditional universities does to a high degree depend on independence from influences from outside, i.e. from government, industry etc. Another important characteristic of the traditional university is the close relationship between teaching and research. Individual university professors simultaneously conduct research and teach a limited number of young students (Rasmussen 1998).
Today, this ideal of a traditional university is under pressure from different angles. Both politically and economically there is a need for more open and dynamic universities in a world of change. It should be mentioned that distance education activities – also those that are not located at specific open universities but are carried out within traditional dual mode universities - have always been a threat to the concept of the traditional university. Peters' (1973) comparison between distance education and industrial production clearly shows that distance education represents a culture different from the traditional university culture (market orientation, division of work etc.). Today the pressure against traditional university culture doesn't come from distance education activities alone - on the contrary. The development of the work force and of the enterprises in modern society depends on universities being able to deliver and update knowledge. Therefore networks between university and the outside world are a must, and 'lifelong learning' has to be implemented in the activities of universities. Inevitably, this radically changes the concept of the traditional university into knowledge institutions with a much broader range of activities than the two traditional core activities of teaching and research, and with a much more diverse target group for their study programmes. Such a university has to rely on flexibility, and on teams conducting a manifold of activities inside and outside the university.
The virtual university is part of such a modern university and shares its cultural aspects. The use of the Internet stresses the need for collaboration and team building.

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Internet supported teaching and learning furthers openness, and forces us to view the study programmes as whole programmes instead of as consisting of separate parts belonging to different professors. Therefore the virtual university culture becomes a highly communicative culture, where solutions have to be found in teams, preferably through communication and negotiation.

CHANGING LEARNING MODELS AND TEACHER ROLES FOR VIRTUAL DISTANCE EDUCATION

Traditional distance education has relied on transmissive teaching models supported by high quality teaching materials and the use of one way mass media. However, the idea of educational dialogues as a bridge between teaching and learning have existed and have, within the overall transmissive model, been used, primarily as a guided didactic conversation, internally within the individual student, initiated by study materials with built-in questions, activities etc, or as tutor-student talk in regional teaching sessions. (Holmberg 1995)

Modern society, however, calls for a new paradigm of knowledge acquisition, focussing on learning by the individual throughout his or her life. Within this context, ideas from the experiential and the collaborative learning paradigms must gain importance, successfully combining important elements of modern knowledge acquisition such as action, reflection, collaboration and learning. (Kolb 1984; Koschmann 1996; O'Malley 1991). For adults, learning at work or learning integrated with work (Lave/Wenger's situated learning (1991)), supported by distance education activities, will be a crucial learning setting of the future. Therefore distance education programmes must change and in the future take their starting point in supporting learning processes, incorporating ideas from experiential as well as collaborative and situated learning.

This means, however, that the role of the distance teacher will have to change dramatically. Guidance and support will have to replace transmittance of knowledge. Therefore teachers have to find new role models, their own teachers or older colleagues being outdated as such. A new understanding of the crucial qualifications of this new teacher role has to be established and generally accepted. One may go in different directions to seek inspiration for the modern distance teacher role (the sport coach, the organisational change agent etc.). At present, some important competencies of the successful distance education teacher of the future might be (inspired by Buchanen/Boddy's description of the expertise of the organisational change agent):

- A profound knowledge of learning (as opposed to teaching) and of the principles and learning implications of available learning resources
- Team building abilities and networking skills for establishing effective working groups (for teachers and for learners) and for supporting collaboration in teaching/guidance and in learning
- Highly developed interpersonal skills, comprising both empathy (being able to listen and to identify ideas, objectives and concerns of others) and excellent communication skills (being able to express personal enthusiasm, manage conflicts, support collaboration, and stimulate motivation and commitment)
- Flexibility in responding to changes.

Such radical change in the teaching/learning paradigm and the teacher roles and qualifications will not take place unaided. The university must take measures to further the process. Simultaneously, appropriate methods have to be formulated in order to overcome the resistance against change and for change to become successful.

STRUCTURED EXPERIMENTATION AS A METHOD OF CHANGE

A key theme in modern organisation theory is organisational change. In the effort to find theories and methods relevant for the change of a university – universities being the kind of organisations described above – one has to abandon traditional concepts

of organisations (focussing on structures) and of organisational change (focussing on a technical-rational change approach based on planning and management). Instead, one should turn to a change model that stresses change processes in a humanistic *and explorative* change perspective (Borum 1995a and b).

In accordance with this, both individual and collaborative *learning processes* of university staff and students should be furthered as a prime element of university change. One may turn to Senge's theory of *the learning organisation* (1990) and his five learning disciplines and to Schön's reflective practitioner (1983) for inspiration.

A crucial element of success in such change processes is the creation and use of a competent, locally suitable so-called *change agent*, supporting the change processes (Buchanan & Boddy (1992)).

At Aalborg University, Denmark, an IT Innovation programme has been initiated in 1998, adhering to such modern principles of organisational change (Lorentsen/ Christensen 1998). The University Senate created an *IT Innovation Center* to play the role of the change agent. In all departments, study programmes, and administrative units of the university, learning processes are generated through concrete experimentation in de-centrally located projects (Dirckinck-Holmfeld/Lorentsen 1999). During the first year 60 projects were registered, involving several hundred staff and students. A considerable part of the projects lay within distance education. Each project experiments on its own, supported by consultants representing the change agent, and the projects share their results and experiences at seminars and workshops. Such concrete experimentation has proved to be an appropriate method for combining de-central initiatives and responsibility with a centrally structured transfer of experience between projects. The task of the IT Innovation programme will be to gradually further an expansion of the number of projects in order to transform Aalborg University into a truly dynamic learning organisation of the 21st century, with staff and students actively participating in the creation of their own reality (Senge 1990).

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