

# Chapter 49

## School in the Knowledge Society: A Local Global School

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### ABSTRACT

*Implementation of ICT in Danish and Nordic schools is gradually changing from an industrial to a knowledge society school paradigm. At the same time ICT, digital literacy and the school's physical and social organization are constantly negotiated. In schools that proactively meet the challenges, new designs for teaching and learning emerge while teacher-student relations transform and the children and young people's competencies are resources in the processes of learning. This chapter presents research based on the proactive schools and exemplifies possible outlines of the school, in the knowledge society. Finally, the findings are extrapolated into a vision of a future local global school in the knowledge society.*

### INTRODUCTION

In recent years, the school as institution has been challenged at all levels, from political decisions, school management, and teacher education to the everyday school practice. These challenges are rooted in society's structural transformation from industrial- to knowledge society, i.e. digitaliza-

tion and ubiquitous ICT, Internet and mobility are core drivers of *globalization* and affects all levels of society. The knowledge society's demands to its citizens differ radically from those of the industrial society and have a profound impact on the present and future educational system. At the present stage of transformation, ICT and the key competencies of the knowledge society have become interdependent and inseparable.

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The school is not only challenged by the present and future society's and business' need for new competencies due to the knowledge society's increasing demand for production and processing of knowledge and innovation. The children and youth in schools belong to a generation for whom mobiles, wireless Internet, *Web 2.0* and social software are everyday phenomena and they frequently use these digital resources outside school (Stald 2009). School and the teachers are still reluctant to integrate ICT and digital media in the everyday school practice. To a large extent, children and youth are self-taught bricoleurs through the learning communities that exist or emerge in the respective children and youth cultures. Accordingly, children and young people can in an ICT perspective be regarded as a potential resource for the school.

That students are often more competent than the teachers when it comes to the use of the dominant infrastructure of society has already led to new relations between the school's actors. It means that the contact between teachers and students and between students no longer is restricted to a physical room; it may also take place in a virtual room. The school's physical classroom as the local setting for learning activities has expanded with the advent of *Web 2.0*, mobility and wireless Internet from being merely an interactive communication process on a local level between the school's actors to comprise increasingly globally oriented teaching and learning activities.

This paper will take its departure in the relationship between the school and society's transformation. Since one of the basic factors of change at present is the digitalization of the media and Internet, we will focus on the corresponding changes in school in relation to teaching and learning processes, ICT-based designs for learning and teaching, teacher and student relations and positions, including the school's relations to the local and global world.

We will apply an ICT perspective to the social changes that occurred in the transition from the

industrial society and its school to the knowledge society and its school. Next, we will describe the recent decades' use of ICT in schools and provide examples from Denmark and the Nordic countries. In the following section, the ICT perspective will be applied to *web 2.0* and the opportunities offered by the new technology for design for classroom teaching and learning. The technology aspect is continued in the section on teachers and students – relations and positions, focusing on the actors' positions in relation to the technology, and how the technology may create new relations between teachers and students. Before we place the school in a local and global perspective in a concluding section, we will provide a concrete example from a school that may be seen as a blueprint for a *knowledge society school*.

## **CHANGES IN SCHOOL CAUSED BY THE TRANSITION FROM THE SCHOOL OF THE INDUSTRIAL SOCIETY TO THE SCHOOL OF THE KNOWLEDGE SOCIETY**

Industrial societies gradually shift away from industrial production methods and a growing number of countries can now be called as knowledge societies (Qvortrup 1998, 2002; Beck 1998; Giddens 2007). Due to architectural theory the succeeding periods of school's organisation and physical appearances mirror the corresponding social formation and the changed demands from society (Sørensen, Audon & Levinsen 2010). Accordingly, present schools that strive to cope proactively with the challenges in terms of management, everyday organisation and practice as well as the design of the physical environment also bears similarities to the emerging knowledge society.

The industrial society's signature mode of production is the assembly line, where primary products are transformed into manufactured goods through mechanical production systems. At pres-

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