TOWARDS A NEW CANON IN EDUCATION

Abstract. The history of education has been driven by a value system based on the centrality of Man. Education has been the most anthropocentric of all enterprises and its interests – family, school, church, businesses and state – have determined educational goals from the very beginning. It is true that educational means, methods and organization have changed over the years, but the process has always been secondary to the goals derived from our anthropocentric values. It appears that the power of information communication technologies will also operate firmly within our pre-existing values. Yet, should this be the case? This chapter examines these issues so as to include ecological and human rights and responsibilities in a vision of a sustainable future that transcends the purely functional aspects of education.

INTRODUCTION

The civilizations that have dominated the World have all been based on the words written down thousands of years ago in the Old Testament of the Holy Bible: “Be fruitful, and multiply, and replenish the Earth, and subdue it” (Gen. 1,28). In line with this logic the rich countries of the West have used the fruits of the revolution in ICTs to “to create more and more.” In many countries policymakers and academics speak of the dawning of a New Economy driven by the power of new technologies.

In a speech delivered in May 2000, then US Treasury Secretary Lawrence Summers reflected on what people are calling the New Economy. “The notion is ‘both palpable and amorphous – more often declared than defined,’” he said. “But if there is one fundamental change at its heart, it must be the move from an economy based on the production of physical goods to an economy based on the production and application of knowledge.”

The New Economy, Summers said, seems to behave differently from the agricultural and industrial economies of earlier eras. “Consider the classic Smithian model of wheat: when prices rise, farmers produce more, consumers buy less, and equilibrium is restored at a lower level of demand.” This classic model of economics, Summers said, is a “negative-feedback” economy – one that is bounded by near-term constraints of supply and demand. An analogy, he suggested, might be a thermostat, which will shut down the furnace when your house overheats (Rausch, 2001).

“By contrast,” Summers observed, “the information economy will increasingly be a positive-feedback economy.” In the traditional economy, new technologies and products start out expensive and rare and only gradually become cheap and
common: think of refrigeration, the automobile, the long-distance call. In the New Economy, additional capacity seems to become available so quickly and inexpensively (think of the microchip) that traditional supply constraints are almost trivial. “In such a world,” Summers said, “the avalanche, rather than the thermostat, becomes the more attractive metaphor for economic policy” (Rausch, 2001).

In this scenario the use of ICTs are central in making it cheaper and more efficient to produce more and more goods and services. In fact, we now live in an avalanche of material goods and services. Nowhere is this avalanche greater than in the production and dissemination of information. Increasingly, it seems the test of a successful education is whether or not a person can actually tell the difference between useful information and white noise which is little more than trash.

In parallel with the logic of the New Economy, within the realm of education in countries across the Western world, investment in ICTs is being made to improve the productivity of the teaching and learning process. For example, “over the OECD as a whole, approximately $16 billion is invested annually... In the United States, more is now spent on ICT in schools than on books and other printed materials” (OECD, 2000). Those with access to the new technologies are now in a position to have vast quantities of information from around the world at their fingertips. Yet, information is not the same thing as knowledge, and it is a far cry from wisdom.

The cognitive scientists John Seely Brown and Paul Duguid demonstrate in *The Social Life of Information* that:

> Information on its own is not enough to produce actionable knowledge...
> Looking beyond information, as we have tried to do, provides a richer picture of learning. Learning is usually treated as a supply-side matter, thought to follow teaching, training, or information delivery. But learning is much more demand driven. People learn in response to need. When people cannot see the need for what’s being taught, they ignore it, reject it, or fail to assimilate it in any meaningful way. Conversely, when they have a need, then, if the resources for learning are available, people learn effectively and quickly.

(Seely Brown & Duguid, 2000)

Seely Brown and Duguid go on to explain that their years of work with the Xerox Palo Alto Research Center (PARC) has demonstrated that for people to effectively distil information into useful knowledge requires a community of practice. They note that learning is a remarkably social process when they write:

> Learning needs to be understood in relation to the development of human identity. In learning to be, in becoming a member of a community of practice, an individual is developing a social identity. In turn, the identity they are developing determines what they pay attention to and what they learn. What people learn about, then, is always refracted through who they are and what they are learning to be.

The social context in which children acquire information is critical to the way in which they construct knowledge and ultimately make sense of their world.

The goals behind education play a large part in the setting of the social context for learning. Traditionally the purpose of education has fluctuated somewhere