Chapter 2

Education Technology

Disposable Information

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ABSTRACT

The educational comparison between past and present, in information technology, makes obvious how much innovation influences didactics and the relationship students have with knowledge and competences. Tools accelerate relationships and information, often, though; obsessive use of technology determines an impoverishment of one’s personal knowledge. This ties young people even more to Internet connections to fill these gaps. Wearable technologies might represent a concrete possibility of overcoming the knowledge gap, by offering, in any place, at any time and in any situation, some definite supports to reassure us about any of our occasional or well-established forms of interaction lack. How much of what we know and take care of; our personal heritage, contributes to determining who we are, our way of acting, thinking, planning, interacting and loving? The article aims to reflect on wearable relationship to education, by offering some data resulting from an Italian experience a secondary high school.

INTRODUCTION

If we turned the question: “Where can we find information?” The answer would be obvious: “on the Internet”. The Istituto Nazionale di Statistica (ISTAT) or National Institute of Statistics reports on “citizens and new technologies, (ISTAT, 2011). They confirmed the most frequent activity practiced by Internet surfers, after electronic mail, is searching for information. Certainly, among those using these services we find teachers and students, for whom research includes finding resources, useful for teaching and studying, underestimating the reliability of those contents as well as their trustworthiness. The knowledge society generates new reflections on educational institutions, traditionally designated to learning purposes and to transfer knowledge that would be useful for a lifetime.

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Technology can be an information distributor, which is a lot faster and less demanding than traditional educational paths. It challenges the educational system, which for ages was presented as the main if not the exclusive cradle of knowledge (Regni, 2004). The extensive presence of technology imposes a rethinking of the role of the school and a definition of erudition (not considered separate from a pedagogical project for learning) or the fundamental competences. The technological component, which in the last twenty-five years has occupied an even more important space in the world of education, has produced a sort of dispersion of knowledge and ability in students, within a context, sometimes disoriented and overloaded.

Can new technologies be effective or are they just instruments, capable of giving in to restless students and providing teachers the illusion of carrying out innovative teaching? The pairing “more technology equals more learning” appears to be way too superficial, it would be best to pass to a phase characterized by more careful evaluations; technologies should be introduced whether it is clear the “added value” they can give. Starting from the 80s, with the development of the digital revolution, all technologically advanced countries launched programmes to introduce Information and Communication Technologies in schools. The program was supported by massive funding and equal expectations, but the process is quite complicated. On one side the schooling system remains at the margins of the decision-making processes, on the other technology is not capable of becoming a resource with a non-capital nature (Desinan, 1998). The objective of the contributions are to demonstrate how the use of technology in the educational environment does not necessarily represent a resource for developing competences; instead, it develops a pseudo-knowledge in young people, who consider the tools a solution to every problem.

BACKGROUND

The educational system of the past was always considered a listening place. Culture was passed on orally with the student expected to listen carefully, repeat and memorize what the teacher explained. This type of schooling had its cornerstone in the traditional lesson with the teacher teaching the whole class at one time. In the beginning, it was characterized by reading, explaining and commenting on the classical texts which were considered to be of great importance; or, more recently, narration, descriptions and explaining facts, environments, characters or events (Laurillard, 2012). During the history of education the lesson method gradually changed, becoming even more profound above all when psychology started to show its influence in the pedagogical environment. Lessons therefore became more conversational/colloquial, more dynamic and active, placing beside the teacher’s oral presentation an iconic support. Also the manuals alongside the words inserted the images carrying out both the function of clarifying and of conceptual integration. The succession of changes has opened the way to operational activities on behalf of the student, in different forms: playing, direct observation, working with one’s hands, and the manipulation of material objects. However, the changes did not influence the basic structure of the lesson, which remained the same. The method still rotated around the content to be taught instead of the student’s needs. At the center of the teaching/learning process was the teacher, who structured and organized the presentation according to the logic behind the subject, and his/her personal preparation and mindset. This established one-way educational communications, during which the student had very few opportunities of intervening and becoming in some way an active part of the learning process. He or she continued learning by listening. An incisive criticism towards this educational setting was raised by J. Dewey who wrote: in the ordinary school classroom, with its rows of desks set in geometric order, “everything is done for listening (…), everything guarantees mental dependency of a mind on another.