Chapter 98

Fostering Digital Literacy Between Schools and the Local Community:
Using Service Learning and Project-Based Learning as a Conceptual Framework

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ABSTRACT

This article proposes the use of a conceptual framework for developing digital skills at school using Service Learning and Project-Based learning approaches. In this context, an important role is played by "digital citizenship" understood as a stimulus for participation in the community also through social software. The author also presents the results of a project carried out by students in technical high school on a very sensitive local issue: the installation of new antennas for mobile phones and the dangers of radiation. The students measured cell phone emissions and created videos that were distributed in a blog, accessed by both the local community and the general online community. The project results were positive on various levels, both at school, evidenced by an improvement in student performance and the motivation to learn, and socially, by satisfying the knowledge needs of the community.

INTRODUCTION: LINKING SCHOOLS AND THE LOCAL COMMUNITY THROUGH SOCIAL SOFTWARE

For some time, the importance of a close relationship between school and territory has been widely acknowledged: the school can become the "glue" for the territory, an institution that is capable of gathering students regardless of their specific socio-cultural identities, and a place that enables the creation of relationships with institutions by encouraging the involvement of students in active, constructive and democratic learning activities, in external informal contexts and non-formal (Dewey, 1989; Illich, 1973; Freire, 1993; Bruner, 1996). The tools of communication and social interaction of Web 2.0, on the basis

of this theoretical framework, can then play an increasingly important role both for the school and for the entire local area community and online communities. In particular, these may become the means to actually create a bridge between school and society and to become an important resource to encourage participation and to create, share and discuss digital artifacts useful to the lives of the residents in the whole community. These tools are very close to Illich's theorized concept of "webs of learning" and "tools for conviviality": they may actually encourage a social approach, collaborative and constructive towards knowledge as theorized by Dewey and Bruner and help to change the traditional relationship between student and teacher, as recommended by Freire, towards a more open relationship to society, especially where the teacher becomes a mediator between the formal learning at school and what is learned by the students in informal contexts.

The use of Web 2.0 technologies and social software at school today is not very common and this is due to the fact that they are perceived by teachers as a powerful driver for distraction and dispersion, rather than as a support method that facilitates student learning. Many of these criticisms and difficulties can be overcome if the introduction of Web 2.0 tools in teaching and learning contexts is used to support constructive teaching practices that are open to the social environment. For example, practices whereby students and teachers try to manage the learning process by integrating the formal knowledge learned at school with the informal learned through interactions with the community

The current issue then is to bridge the gap between formal and informal learning and try to integrate into teaching practices the same tools used outside of the school, by encouraging the acquisition of true "digital literacy". This intrinsic motivation can be stimulated especially if students are involved in constructive and participatory learning activities also in informal settings outside of school. In fact, an interpretation of digital literacy is an engagement in a set of emergent, practices, socially constructed and situated, that are deeply rooted in a specific context and involving social software. This perspective sees participation as the base on which to build competences in digital literacy (Meyers, Erickson, & Small, 2013).

PROMOTING DIGITAL LITERACY AS "DIGITAL CITIZENSHIP"

It's interesting to note that the meaning attributed to "digital literacy" has in fact changed over time: until a few years ago, the prevailing interpretations related to the mastery of purely technical skills, now associated with these are also *relational* and *participatory* skills, extending the meaning to incorporate more elements including essentially the concept of "digital citizenship" (Mossberger, 2008). The report "Digital Competence in Practice" (2012) of The Institute for Perspective Technological Studies of the European Commission, is an interesting example that tries to specify the concept as a convergence of multiple illiteracies, including precisely participation, socialization and learning: "Digital Competence is the set of knowledge, skills, attitudes [...] that are required when using ICT and digital media to perform tasks; solve problems; communicate; manage information; collaborate; create and share content; and build knowledge effectively, efficiently, appropriately, critically, creatively, autonomously, flexibly, ethically, reflectively for work, leisure, *participation*, learning, *socialising*, consuming, and empowerment" (Ferrari, 2012).

The affordances that social software offers (sharing, collaboration, personalization) can in this way yield new forms of civic participation able to radically change existing social relationships (Mcloughlin, & Alam, 2011).

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