Social Media and Autonomous Learning at a Latin America University: 
The Social Neuroscience Role of the Developing Metacognitive Capacities

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ABSTRACT

The main purpose of this article is to investigate the selection patterns and uses made of the web tools and social media in both formal and non-formal education of students. The possibility of using networks to provide a multitude of stimuli that can be used for facilitating the learning, which offer a wide range of possibilities. The authors found that in many cases, the students use the devices and applications as a ‘simple remote control’ discarding all the available possibilities for learning. The criteria for selecting the respective application in many cases are arbitrary or just a response to advertising or the usage of their friends. The web tools and social media provide ample opportunities, often for free, for incorporation into learning activities. To benefit from the use of them for learning purposes, it is important to know student preferences and the way in which they handle the media, in their private and academic environments. Also, the perception of the sense of spatial, social and temporal distance, which gives shape to our relationships and daily exchanges of information is essential for teachers. It is important for universities that the usage of technologies is not drifting too far away from those which students use outside the walls of the campus.

KEYWORDS

Appropriation of Technological Tools, Autonomous Learning, Latin American University, Learning Situations, Personal Learning Environment, Social Media, Social Network, Social Neuroscience, Social Web, Web 2.0

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INTRODUCTION

Internet has brought deep changes in the way we see the world, communicate, and provide information. But the strongest revolution came from applications which have allowed sharing of information and experiences and led to the rapid creation of user-centric communities. These applications allowed users to change from being a mere reader and to become an active creator of content which can be shared with the world enabling discussion and dissemination of ideas, knowledge and activities. In addition, personal learning environments have been created by the students with profound social and cultural impact. We should know and understand these developments when we rethink educational settings (Cabero, 2009).

Although some studies on the use of technological tools in the classroom exist, fewer reports are known as to why and how students use these tools for learning in their personal life outside the educational institution. The study will focus therefore especially on this aspect. The answer to these questions is important if one wishes to understand the ways in which students learn and how they deepen their individual and collective knowledge just by following their interests. Based on the cases analyzed, the researchers observed an emerging specific structure of their personal learning environments (PLE) which we call ‘Proto-PLE’. Another point of view was an approach about to the social neuroscience role of the developing metacognitive capacities, and the impact the use of the social networks in the self-taught learning of the students. This multidimensional perspective will allow a better understanding of complex phenomena that involve different channels of information, stimuli, emotions, and personal experiences, on the neural bases of learning.

RELATED LITERATURE REVIEW

Social and Cultural Changes

Jenkins mentions three characteristics of actual trends in technology which, at present, are transforming our social environment: the convergence of media; the emergence of a participatory culture and the upsurge of collective intelligence (Jenkins, 2008). Convergence is a cultural change which encourages consumers to seek new information and make connections between dispersed media content. The current flow of media content is dependent on the active participation of consumers. In the culture of convergence every story, sound, brand, image, or relationship is spread through a multiplicity of parallel channels.

Given the ease and freedom in networks a participatory culture is born which has the potential to turn the world into something much more diverse than a world controlled by a small number of media producers. It enables a kind of direct democracy where each individual feels himself to communicate at the same level as their peers by actively taking part in online communities; by contributing to discussion forums; by postings to blogs; by sharing photos and thus they create their individual ‘net identity’.

Some manifestations of this convergence can be seen in virtual communities or channels such as YouTube where they circulate information and solve problems in a collaborative approach, e.g. translation of captions in videos or uploads of ‘let’s play’ to explain the best way to play a game online. This is equally valid for formal or informal groups which aim at developing new products or want to acquire knowledge or skills by consulting publications like Wikipedia. All such activities are excellent learning opportunities for creative expression and invaluable training for future skills.

Balaguer (2012) labels the attitude and behavior of young people who grew up with these devices a ‘new cultural pattern’ which means that the new technologies bring about changes in user behavior and lead to new interpretations of the term ‘knowledge’. Young people are ‘in connection default’. They are now the first to use digital devices and are ‘disseminators of new devices, applications and literacy’.

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