SOCIO-TECHNOLOGICAL PROCESSES AND SOCIAL MEDIA INTEGRATION ON E-LEARNING

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Abstract

Social media has been used in various ways to influence online users and guide them towards different purposes and goals, be it personal development, e-commerce, relaxation and, recently, more and more towards online education through various technologies such as Virtual Reality, MOOC's, interactive online classes or even instructional videos. As such, the purpose of this paper is to demonstrate the way in which different components of research, like web sciences, e-learning and cognitive computing are part of a whole and, also, that they open up new means of connectivity at a theoretical and practical level between themselves. Furthermore, the article will reveal the importance between these subjects and developing learning analyses. In order to reach these objectives we will be using references and information in regards to mechanic learning, data science and social awareness, either as technologies or as theoretical frameworks, which complete the aforementioned items.

Keywords

social media, e-learning, modern knowledge, innovation, new ways of learning, social process

JEL Classification

O35, O32, O15

Introduction

E-learning is an important sociotechnique phenomenon, referring not only to the learning management system at university level and similar levels of education but also to the generalized activity of technology-mediated learning (Haythornthwaite & Andrews, 2011). Finally, researchers seek to identify socially significant patterns among socially generated data such as Twitter and Facebook, models that denote social phenomena that are not immediately highlighted in the data collected. It is no surprise that the social media (SM) is an everyday element in our lives. Through SM we are constantly connecting organizations, users, customers and the rest of society. More and more in the last decade (and from the emergence of LinkedIn, Skype and Facebook) SM has begun to be used by companies for new ways of connecting, communicating, engaging with a wide range of people interested and learning human resources through e-learning platforms.

Thanks to the SM, a collaborative and innovative environment was born, the study and dynamic capabilities of the company co-evolved so that the transfer and the creation of knowledge become an integrated part of the process (Castellacci & Natera, 2013). In this context, the learners drew the attention on the development of an SM platform that enables companies to connect scattered information sources in an efficient and effective manner (Palacios-Marqués et al., 2015).

E-learning and social machines

The term e-learning includes all forms of teaching and learning with electronic support, including electronic books (ebooks), CD courses, online teaching tools such as e-learning platforms, video tutorials that are made available to different people either through e-learning platforms as a course support, or through other social media tools (Youtube, Facebook, Google+, etc.) that contribute to non-formal learning based on the Internet alone.

E-learning is about connecting people, technologies and services in order to meet the desire to educate. Interested people are: students, teachers, content providers and institutions, professional associations and educational councils; services correspond to learning activities based on pedagogical models (eg open learning and knowledge sharing communities) and training strategies (eg Problem Solving Exercises, Role Playing, Contextualized Instructions) while technologies are the ones that work to facilitate content (cure, access and generation) communication and collaboration.

A special relevance is the learning theory (Bell et al., 2013) in contexts that would not be concretely a learning activity and assimilation of knowledge becomes involuntary in contrast to deliberate. Which means that e-learning services, instead of being centralized, must be available as a general feature so it can generate a learning event amidst the student's desire to learn.

These other activities comprise the "authentic contexts" of learning, as they are the normal situation for proper knowledge. Another important aspect of learning theory, which can be seen as a concomitant necessity of locating the learning event, is its collaborative aspect. The learning event, providing clear content and connecting the student with an expert or teacher, involves them in a community of learning (Brown et al., 1989). Although this joint involvement implies the social construction of knowledge, perhaps the most important aspect of the analysis is the situation / learning event itself as a phenomenon, which indicates the learner's experience. This means that in the end both behavior and knowledge must be taken into account.

Electronic learning, like all augmented social processes, in which a human agent disappears and is represented by a live video or other representation, works to replace real presence with a smaller type of presence: telepresence. This affects the way students take risks and how they develop their relationship with teachers as apprentices, which is particularly important for "acquiring skills" (Dreyfus, 2008). This can be understood as a superior boundary that distinguishes such types of e-learning from traditional learning and is something about which recent learning patterns are based around learning (Garrison, 2011). These models explicitly suggest how a portion of this lack of presence can be mitigated. While e-learning focuses on socio-technological processes with educational goals, web-based science has instead a scope that extends over the overall space of socio-technological processes.

Social machines do not just denote a key phenomenon that makes up the modern internet. Instead, they are radically present in the whole range of modern human life. These were the means to enable sub-cultures of decentralized human activity, which were particularly disruptive and have a particular influence in shaping modern human experience. Social machines are the predominant participatory phenomenon involving billions of users.

These were the means to enable decentralized sub-cultures of human activity that have influenced in a particularly alert fashion the modeling of modern human experience. Social machines are the predominant participatory phenomenon involving billions of users. E-learning situations, we propose along with (Yee- King et al., 2014) are learning machines. These are a subset of social machines with educational objectives that go beyond any social goals that may be present. This concept is not alien to web science because acquiring knowledge is indeed a common goal of social machinery. This section explores some implications of the relationship between web science and e-learning, which is not addressed in other papers. As a sub-type of social machine, a learning machine inherits the properties of general social machinery, while providing additional properties. With regard to the administrative and creative part of a social machine, in an e-learning context, bringing together people and diverse content to serve as an instructive strategy can be understood as the administrative side. as a sequencing of relevant strategies, to design a personalized learning event for a particular learning context. The additional properties of a learning machine along with study methodologies, such as learner analysis (Aljohani & Davis, 2012), can be understood as a type of social machine analysis with respect to educational objectives. This alignment of a social machine learning machine by understanding it as a social machine is particularly suitable due to the trend towards social learning towards e-learning (Zhang et al., 2015), in which social learning is in particular responsible for promoting individual creativity among learners in an online context.
The use of e-learning platforms for vocational training generally presents a set of benefits, of which the most important are the ones in the table no. 1.

Table no.1 Advantages of e-learning platforms

Advantages of using e-learning platforms	
Time	This advantage relates to the fact that the students who are accessing will not have to be present in a specific place, such as a classroom, within a certain timeframe. Another factor contributing to this advantage is due to the course support provided by these platforms, support that comes in either electronic books (ebook, PDF) or audio / video or streaming format.
Location	This advantage is a direct consequence of the fact that e-learning platforms are based on the internet. Students / learners can access e-learning platforms wherever they are by using mobile devices (Tablets, Smartphones etc), laptops, personal computers, public libraries, etc.
Productivity	This advantage only occurs in the case of e-learning platforms that have been created by companies to prepare employees in the context of lifelong learning (LLL). Considering that we are in the age of rapid technology change, it is more cost effective for companies to invest in such methods to prepare their staff and knowledge base than sending them to classical, formal courses.
Cost effectiveness	Due to the fact that e-learning platforms are installed on the servers, which does not require much space compared to the classical teaching methods where the classrooms are necessary, and also because the number of teachers / tutors is low, the costs are substantially reduced . Also, the costs for teaching materials are reduced due to the fact that they are distributed in a digital manner. These aspects are also reflected in students / learners by the fact that

	the only cost they will bear is that of the internet connection and the device it uses to connect (of course this applies only to e-learning platforms free, not for e-learning platforms that have either a cost per course or cost per account)

Social integration in e-learning and social media for qualified human resources

In our research we addressed the dimension of social integration to study the effects of using e-learning platforms and interacting with social media to develop on a non-formal path a much better qualified human resource.

In particular, the adoption of the SM has determined how companies communicate, collaborate and innovate, both through the use of internal and external knowledge sources. At the same time, the absorption of these technologies has influenced organizational processes, and has led to the identification and development of new skills and capabilities. In order to achieve the benefits, researchers have called upon enterprises to adopt a SM strategy with intent (Dutta, 2010; Kietzmann et al., 2011). The evidence highlights the use of SM for strategic awareness (Hill et al., 2006; Trusov et al., 2010), operational awareness of all companies (Benbya & Van Alstyne, 2010) and reconfiguration of innovative ways by redefining the cobra (Mangold & Faulds, 2009; Zwass, 2010) and learning (Peppler and Solomou, 2011). However, what has been discovered has barely managed to break the ice of what may be possible, with significant opportunities in the future for researching, exploring and examining SM interactions and innovation, like the posibility of inserting social media aspects in smart cities through „(...) ensuring interoperability between public administration and business and citizens (...)" (Alpopi & Silvestru, 2016). Essential progress consists in conceptualizing social integration. We consider that social integration involves two dimensions: a link dimension, representing the presence of social connections and social support, and a competitive dimension, representing social statuses in a form of hierarchy that can bring prestige (Tufekci, 2008). We believe that individuals are addressing social media platforms when they are more integrated both in a social and competitive relationship. Even those social experiences that are considered negative, as well as antagonistic interactions with others, are part of what makes the adoption of social media valuable to those who are integrated; social competition and conflict with colleagues are the integral part of community participation, and thus provide an impetus to participate in social media as well as positive feelings and experiences. Application of technology is the most important for those students who are most integrated, both in connection and in competitive terms, and promotes their social integration process (Maier, Sven-Joachim, Fortmüller & Maier, 2017).

Our focus on social integration, both as support and as a competitive one, is drawn from the perspective that participation in a group sometimes involves behaviors that are often considered to be detrimental to social life; confusion and aggression towards other members of the group are features of the groups. A series of theoretical and empirical accounts highlight the integral role of aggression and confrontation in the statutory order of groups (for example, Faris & Felmlee, 2011; Gould, 2003; Martin, 2009). Social competition and social support capture different but equally important aspects of group integration, whether those groups are students in a middle school or scholars in academic disciplines. We know that scientists at the center of academic discipline have taken positions in opposition to colleagues, while encouraging collegiality. The integration idiom we use here, "mixed," involves the desire to "blend" - to engage with others through the forms of support and competition that drive the community to become more dynamic.

Use by the social media as part of the internal communications strategy can transform how employees and experts in the company participate in innovative training courses using e-learning platforms (Sun Microsystems in Barker, 2008). SM features allow you to create

personal profiles that highlight your experience and areas of interest among other menu options. Thus, the use of SM in learning brings together different "voices" to facilitate the generation of ideas and the hosting of conversations as well as intentional. While using SM for e-learning at macro and meso-tide levels to highlight interactions with the company and the end-user, micro-level is often emphasized on the learning communities. Often managed by the company's training manager, learning communities are designed to mobilize sources of internal and external knowledge and to facilitate collaboration between experts, teachers, employees, partners and suppliers.

E-learning systems are universal in this manner, often exhibit lean learning scenarios where they have a significant social influence (Aljohani et al., 2012). We claim that they work to fulfill Illich's ideal of informal education in a rather unprecedented way (Czerkawski, 2016; Goldie, 2016; Illich, 1973). An ideal whose achievement corresponds to a means of combating the partial social inequalities generated by the still dominant dominant institutionalized forms of learning. Consequently, learning machines were the most destructive of all social machines.

Conclusions

As social media and technology keeps advancing into our daily lives, and society becomes more dependent on technological interactivity instead of face-to-face interaction, we consider that this technological aspect should be implemented in educational fields in either a formal manner or an informal/non-formal manner. Thus, as mentioned in this paper, learning and technology complete each other and are used more and more, albeit with limitations in some fields, but we are close to reaching a consensus in regards to how much we should let technology guide and teach future generations and how it should influence social aspects of our lives. Thus we consider that social media should be used more in trying to guide and teach future generations or even older generations, by giving them the opportunity to gain skills and competences through its use. Furthermore, by implementing technology on even deeper levels, we as a society will gradually change from a society that learns how to use technology to one that is thought by and through technology, which in turn will result in further widening our learning spectrum and educational efficiency as a whole. Thus, having social media be implicated in more and more fields in order to help improve skills and competences either through educational platforms, virtual technologies, mobile applications, instructional videos or other variants, is something we as a society should aim for implementing more and more in order to improve our general knowledge as a whole.

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