An Analysis of the Impact of 2.0 Tools and Technologies on Organizational Processes

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ABSTRACT

In this paper, the authors present results from a study on the usage rate of 2.0 tools and technologies among Spanish enterprises. The main objective of the study is to analyze, from the perceptions of executives, the influence of social software tools on a set of business processes. This analysis has been made using two graphic tools: the “2.0 Success Matrix” and the “Tool’s Footprint”. Both the review of literature and the empirical work have lead to important findings and conclusions.

INTRODUCTION

In the past years users have experienced a change of mentality towards the Internet, which has evolved from a static environment to a virtual space where users do not only access content but also generate it, starting conversations through new tools associated with the so-called Web 2.0; it is becoming a fact nowadays that society in general has embraced Internet Social Networks. This shift has not had its reflection in the corporate world, where the software tools being used do not foster social interactions yet. Nevertheless, more and more organizations benefit from social software tools daily, being it wikis for collaborative work or blogs to raise the effectiveness of their communication with the environment. And yet, not all companies have profited from these benefits: there are organizations where wikis have not even been able to launch due to internal resistance (Hasan & Pfaff, 2006).

Social Software and Web 2.0 are not a technological revolution. These technologies are ineluctably linked to values such as sharing, transparency, conversation and openness. Therefore, there is resistance to their use in more traditional organizations which conditions the benefits which may be achieved by Web 2.0 organizations.

The introduction of the first Enterprise Information Systems (EIS) was a real revolu-
tion, creating new business opportunities (e-Commerce), new forms of organization (with flatter organizational structures) or significantly streamline work processes. Will social software cause the same effect?

No doubt the potential of new tools is great, but they are very different tools than traditional EIS, and organizations which seek to carry out a social software implementation must embrace the necessary cultural change that prepares individuals to obtain and provide value to corporate social platforms.

Based on this concept, we have developed an empirical study with the objective of determining the level of implementation and use of social software within companies in Spain.

The main objective of this paper is to analyze the impact perceived by Spanish company executives associated to the use of the most relevant social software tools. The study has identified a set of business processes from literature due to their special relevance for task performing and asked the surveyed managers to estimate the impact that each and every tool has on each process.

1. BACKGROUND ON STUDIED TOOLS AND PROCESSES SELECTED

Information and Communications Technologies (ICT) have been introduced in the past in organizations, usually in the form of information systems designed specifically for each business or company. IS have gradually acquired greater complexity, evolving until they have become completely integrated in business processes. Thus, ICT have become a key element that runs parallel to cross-business processes within the organization (Brynjolfsson & Hitt, 1997; McAfee, 2002).

While studies have demonstrated an improvement of the parameters associated with IT investment, some articles show that new IT investments have a very limited impact on company profits, compared to the investment made (Brynjolfsson & Hitt, 1996). This fact, according to the authors, may be due to having reached an optimal point in IT investment, so an increase in investment does not cause a significant change in the observed parameters, specially the profits of the company.

Because persisting in investing on such traditional systems does not seem to cause the expected return, future efforts in business ICT should be focused on other areas. One of these new fields of development is social software. After having proved a great potential because of their degree of general acceptance, companies have now begun to glimpse this potential.

The term social software comprises a group of technologies, tools and services. For the present study the following tools were selected due to their special significance and their impact on the processes selected (Hasan & Pfaff, 2006; Johnston, 2007; Millen, Feinberg, & Kerr, 2006; Bätchtle, 2006; Juch & Stobbe, 2005; Celaya, 2000): a) Employee and Corporate Blogs, b) Wikis; c) Content Syndication Systems; d) Social Networking and Virtual Communities; e) Semantic Labeling Systems; f) Recommendation Systems and Social Filtering; g) Microblogging systems.

These technologies are likely to be applied to almost all business processes. However, in this work we have focused on a small number of aspects present in business processes, which are: a) Reduction of hierarchical levels (Spanos & Prastacos, 2000; Lee, Chu, & Tseng, 2009); b) Flexibility and organizational change capabilities (Cherbakov, Galambos, Harishankar, Kalyana, & Rackham, 2005; Arsanjani & Holley, 2006); c) Environment Knowledge and Change Management (Lee, Chu, & Tseng, 2009); d) Knowledge and Expertise Management (Venkatraman, 1994; Durickova & Gray, 2009); e) Efficiency in Decision Making (Orman, 1998; Dewett & Jones, 2001); f) Knowledge of Client (Ko, Kim, Kim, & Woo, 2008); g) Communication with the Customer/User (Rigby & Ledingham, 2004); h) Internal Communication, both horizontal and vertical (Cuadron, 1995; Lawler, 1996); i) Productivity in the workplace (Brynjolfsson & Hitt, 1996; Brynjolfsson & Yang, 1996); j) Teamwork and collaboration.
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