

Collaborative tools for the digital age : Exploring the implications of social computing technologies for virtual teams

Abstract

This study investigates the value of social computing tools for collaboration in virtual teams. We develop and test an empirical model, which links the habitual usage of social software outside the workplace with the usage of such tools in the workplace. Further, we investigate the variances in the perceptions and usage of these tools across two generations - the digital natives and digital immigrants. Social computing tools are computing applications in which software serves as an intermediary or a focus for a social relation. Examples of these technologies include, wikis, blogs, microblogs, online social networks, and video sharing sites, among others. These technologies have seen a tremendous increase in their usage by people in their personal lives. Increasingly, employees are adopting these technologies within the workplace as well. Many organizations have realized the value of social software. Nevertheless, many are uncertain about the extent to which they can support collaboration. Considering the technological capabilities of social computing technologies it is clear that these applications *can* complement the present set of collaborative tools. Nevertheless, the effectiveness of collaborative tools depends on its usage. Extant research has demonstrated that the usage of collaborative tools affect interactions within a team as well as the performance of teams. Thus to understand the value of social software for collaboration, organizations need to have a better understanding of what drives their usage as collaborative tools. Predicting the usage of social computing tools for collaboration is a difficult task. The increasing overlap of personal and organizational uses of these tools is one of the major challenges to the use of these tools. People use these technologies very frequently at home. Frequent usage often leads to the formation of habits. When people collaborate in teams, these personal habits can affect their use of technology. Extant technology adoption models do not consider these overlaps. To predict implications of social computing technologies for virtual teams the usage of social software for collaboration, it is hence important to consider the habitual usage of social software use in personal settings as well. The emergence of a new generation of users, who have 'grown up surrounded by technology' - the digital natives, further complicates matters. Some authors argue that digital natives are likely to use these technologies differently than their older counterparts. This may lead to variations in the usage of such tools. This may in turn result in higher conflicts and less cohesion in a team. Thus, negatively affecting team interactions, and performance. Understanding the implications of social computing technologies and the entry of digital natives on virtual teams has become crucial for organizations. This research needs to modify the extant collaborative technology use models to reflect these changes. Further, we need to get a clearer understanding of the desired features, benefits, and use practices of such tools for collaboration. In this thesis, we developed and tested an empirical model, which links the habits with social computing tool usages at home, to technology usage and team interactions in virtual team settings. We used existing instruments for the constructs. We found that habitual usage of specific social computing tools at home, while not directly affecting team interactions, does lead to an increasing intent to use similar features in the workplace. To test for differences in social computing technology usage between the digital natives and digital immigrants we compared the perceived importance and use of such tools for collaboration in the organization between the two groups. We found some significant differences in the perceptions and uses of these technologies between the two groups of users. Younger employees, in general, perceived the tools to be more important and used them more frequently. To investigate how employees use these technologies in practice for collaboration we conducted in-depth interviews of selected participants. Analysis of the data threw up some valuable insights, which we categorized into different themes. Using a survey, we have highlighted the social computing applications perceived to be most useful by the employees for collaboration. We categorized the perceived benefits of social computing tools into two broad categories based on the results of a principal component analysis. We further organized the observations in a 2x2 matrix to aid managers in understanding the use of social software within the enterprise. Based on our analysis we discuss the implications and recommend some guidelines for managers wishing to exploit the potential of social computing technologies in virtual teams