

# EXPECTANCY THEORY AND BEHAVIORAL INTENTIONS TO USE COLLABORATIVE SOFTWARE

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## INTRODUCTION

As faculty, educating undergraduate college students about the uses and expectations of a collaborative tool to facilitate social networking, as well as personal connections with colleagues, is becoming important. Collaboration in business work groups is a frequent fact of professional life [1] [6]. Exposing students to the use of software and websites that encourage and enhance business collaboration prepare students for the work environment [7]. As part of their undergraduate degree students develop a set of skills to successfully transition into the work environment. An important part of this transition involving students' skills is the individual's confidence in their ability to successfully use their skills. This confidence can be captured by student's self-efficacy regarding their job-related skills. In general, self-efficacy is the individual's perception of possessing the requisite abilities to successfully perform a specific task [2] [3] [4]. A companion to self-efficacy is outcome expectancy which reflects the individual's perception regarding the result or gain from successful completion of these tasks [5].

The goal of this research is to examine the use of business collaborative software in an undergraduate business education environment. Specifically, this examination is to better understand what influences students' adoption and use of such software as well as to expose students to the types of tools they will experience in a professional, collaborative work environment. The specific software used in this study was Microsoft's SharePoint Services. SharePoint Services is used in many large corporations to provide a space for employees to collaborate on projects and share information. In essence, SharePoint Services creates a collaborative work environment where team members can share documents, keep track of different versions, and develop time lines for completing their project. The use of software tools such as SharePoint Services by students gives them experiences in computer facilitated collaboration. However, software designed specifically for a classroom environment (e.g., WebCT), is very different from the software that students will use in their future professional environment. It is this inconsistency that motivated the research described below. The research premise was to provide students experiences using collaborative software tools similar to what they will use in their professional career and to evaluate the impacts of such professional software on student's attitudes and behavioral intentions to use the software in the future.

In order to reach this end, the information systems faculty at a university in the western United States introduced Microsoft's SharePoint Services into information systems courses as well as another business course. All these courses required student collaboration on team projects. A model was developed from the literature.

## THE SAMPLE

Microsoft's SharePoint Services was used in six courses. Four were required courses for the information systems major and one was a senior-level elective in the major. The final course was one available to all business students and explored advance uses of spreadsheets. Each of these courses required students to work on a project in student teams and had available for student use SharePoint Services. The team projects required a meaningful amount of interaction and collaboration among team members. As a result, this environment was ripe for the use of collaboration software, like SharePoint Services. Thus, the students in these courses had appropriate experiences using SharePoint Services.

In order to generate a data sample of these students' perception regarding SharePoint Services and its use, an online questionnaire was administered to these students using Web Surveyor. Students enrolled in more than one of the courses surveyed completed only one copy of the questionnaire. Total enrollment in all six courses was 113 students with 84 of the students completing the questionnaire. This created a 74.3% response rate. The characteristics of the responding students were summarized by a few demographic questions. A total of 75% of the respondents were male and of course 25% were female. The average age of the respondents was 22.33 years with a minimum age of 20 years and a maximum age of 32 years. The majority of the respondents were seniors (57%) with the next largest group of respondents being juniors (39%). The respondents reported spending just over two hours a week on average using SharePoint Services.

## DISCUSSION

The empirical results indicate that peers' influence directly impacts self-efficacy and directly and indirectly impacts outcome expectancy. Through both expectancies, peer influence then impacts behavioral intentions to use SharePoint Services. Managerially, these impacts can be influenced by bringing team members who are using or will soon be using SharePoint Services in contact with appropriate reference peers who have positive experiences with SharePoint Services and its use. In a classroom setting this could mean bringing more advanced students who have successfully used SharePoint Services and have positive views of it into contact with current students in order to encourage them. This could be via class presentations or team mentoring.

Support for SharePoint Services impacted behavioral intentions indirectly through outcome expectancy. The result implies perceiving that you have adequate resources to use SharePoint Services leads you to perceive its usefulness or understand what outcomes to expect from using SharePoint Services. This ultimately impacts behavioral intentions to use SharePoint Services. The result may well be along the lines of "since resources are being committed to using SharePoint Services, there are useful work impacts from using it and I will need to find them." What is surprising is the lack of impact that support for SharePoint Services has on self-efficacy. This might reflect the general nature of the interpretation of support for SharePoint Services in the way the questionnaire items were phrased. The phrasing could have lead respondents to not consider their abilities to use SharePoint Services. What would be interesting is to study if having training specifically on SharePoint Services might positively impact self-efficacy to use SharePoint Services. Regardless, from a managerial perspective making sure that users perceive they have adequate resources to use SharePoint Services positively impacts behavioral intentions through outcome expectancy.

A rather surprising result was the lack of any meaningful impact of previous computer experience on behavioral intentions through either outcome expectancy or self-efficacy. A potential explanation is that SharePoint Services and the environment in which it is used are sufficiently different from any prior

computer experience of the students examined that these experiences did not translate well to using SharePoint Services and thus did not influence outcome expectancy or self-efficacy.

The influence of faculty positively impacts behavioral intentions of students through improving self-efficacy regarding SharePoint Services. This influence appears to be from faculty encouraging students to use SharePoint Services. It may also be the case that the respondents do not believe that these faculty will ask them to use a software application that they could not successfully use. As a result, the influence of the faculty positively impacts self-efficacy and ultimately behavioral intentions to use SharePoint Services. Managerially, this would mean the faculty need to encourage students in their use of SharePoint Services. Interestingly, faculty influence did not impact the perceived usefulness or the outcome expectancy of SharePoint Services. This might be due to the faculty encouragement focusing on how to use the software and helping students solve problems of use rather than emphasizing how SharePoint Services can be used to improve productivity.

The empirical results for the ease of system use were rather surprising. These results indicated that the perception of how easy SharePoint Services is to use positively impacts outcome expectancy but not self-efficacy. That is, being easy to use allows students to see the usefulness of SharePoint Services, but it does not make them more confident in their abilities to use SharePoint Services. Perhaps SharePoint Services or collaborative software in general is sufficiently unique to these students that ease of use does not impact their confidence but does allow them to see how the system can be useful in completing their tasks.

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