Chapter IX

Web Design Studio: A Preliminary Experiment in Facilitating Faculty Use of the Web

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ABSTRACT

Reported in this chapter is an action research project using Theory of Planned Behavior (TPB) to help manage the process of encouraging faculty to utilize Internet tools in the implementation of their classes. The research provides an in-depth examination of an innovative experiment to impact the process of faculty website development, faculty training, and faculty support, reflected in terms of the TPB framework. These results will be of interest to managers in need of encouraging autonomous decision makers, such as faculty, who need to structure, reengineer, and innovate their business processes in terms of an Internet component. Recommendations about incentives and support are provided.

INTRODUCTION

There is no question that the Internet has presented all professors with a range of opportunities with which to support and enhance their curricula. While distance learning has become unleashed through the availability of technology, even traditional format classes have been enhanced by electronic discussions and the rich resources with varied formats that can be used because of the technology. Benefits not withstanding, not all colleagues have rushed forward to avail themselves of the opportunity. Many faculty members do not believe the benefits of creating and maintaining an electronic presence are worth the cost to them. However, many consumers (students and prospective faculty) depend on such a Web presence in the decision of which product (university, major, or course) to select. As the

expectations of such consumers become more sophisticated, the need for not only some Web presence, but also increased functionality, will magnify the importance to the institution.

In fact, it is already true that the level of Internet technologies in use at an institution can impact its prestige and the quality and quantity of students it attracts. Thus, if the utility that the university (including the broadly defined university community) receives is greater when faculty provide an Internet presence, it is necessary to develop a strategy that encourages such behavior, by reducing the costs incurred by the faculty or by increasing the benefits to the faculty to compensate for real or perceived losses.

So, the question is how to manage the process so that the university and the students get value from Web-based instruction, given that faculty members need to embrace the technology to make some of it happen. The literature provides some insight regarding faculty attitudes about technology as predictors of their usage of technology. (Davis, 1989, 1993; Davis et al., 1989; Dillon & Morris, 1996; Kottemann & Davis, 1991). Said simply, the greater professors accept the technology, the more likely they are to integrate that technology into their work activities.

One well-accepted framework is the Technology Acceptance Model (TAM) proposed by Davis (1989, 1993). This model posits two factors, ease of use and perceived usefulness, as providing the greatest explanation of technology adoption and integration. In particular, it suggests that the lower the effort for an individual to use the technology and the greater the enhancement of that individual's job performance, the more likely the technology will be adopted and used. While this theory has had wide acceptance among researchers because of its explanatory power (see, for example, Davis, 1989, 1993; Davis et al., 1989; Kottemann & Davis, 1991) , it is not a good framework for consideration of the scenario in this chapter for two reasons. First, the framework does not provide a list of factors that a manager or administrator could affect to bring change in the use and adoption of the technology (Taylor & Todd, 1995). Second, research by Succi and Walter (2001) and Hu et al. (1999) shows that it does not provide good explanatory power for utilization by professionals, such as faculty members.

Instead, reported is an action research project using a framework called the Theory of Planned Behavior (TPB), because it is more likely to provide some guidance to administrators trying to impact the behavior of faculty members. The theory of planned behavior was first extended from the social psychology literature by Ajzen and Fishbein (see Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) to explain technology utilization using subjective norms and perceived behavioral control. The model was later enhanced by Taylor and Todd (1995), with extensions from the diffusion of innovations literature (Rogers, 1983) to include various aspects of the user's attitude toward technology. The combined model, shown in Figure 1, has been shown to be appropriate when one examines the behavioral intentions of users (Matheieson, 1991).

In particular, the framework looks at utilization as being influenced by three distinct facts: subjective norms, perceived behavioral control, and attitude.

"Subjective norms" refers to the user's perceptions that influential people (those important to them) believe that they should (or should not) use the technology (Fishbein & Ajzen, 1975). Taylor and Todd (1995) showed that these subjective norms are critical in the early stages of developing attitudes about using the technology. However, because subjective norms are not easily affected by administrators trying to impact technology use, they will be acknowledged as important but will not be included in the study.

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