I WANT BUT I WON'T? SOCIO-PSYCHOLOGICAL BARRIERS TO ADOPTION OF INNOVATIVE SOCIAL LEARNING TECHNOLOGIES

ABSTRACT

Adoption of IT-enabled social learning systems specifically designed for courses emphasizing creativity, critical thinking, communication and collaboration (4Cs) in education are still limited, despite public urging, grounding in research, and availability. We propose empirical study of how instructors' attitudes, subjective norms, and perceived behavioral controls affect intentions to adopt such systems. Using a survey instrument based on the theory of planned behavior, we will investigate whether personal buy-in for peer learning pedagogy, departmental and institutional backing, and availability of technology support are the key antecedents to adoption and regular use of IT-enabled peer review systems.

Keywords: social learning, peer assessment, peer review, theory of planned behavior

INTRODUCTION

Employers, educators, and the general public begin to realize that to succeed in the ever-changing world today's students need competencies such as creativity, critical thinking, communication and collaboration (4Cs) [11] [8]. Lectures, memorization, and standardized multiple-choice tests are not the best pedagogical approaches for developing these competencies. They are best developed though engaged social learning, such as discussions, peer review, and assessment. These techniques used to be susceptible to workflow complexity, poor scalability, and the lack of incentives [5], but today's IT innovations allow to alleviate these problems [3].

The scholarship of teaching and learning (SoTL) related to peer review and assessment has a four-decade history [9] [4]. Yet, despite strong grounding in research and increasing availability and popularity of social media and social networking applications to facilitate social e-learning, adoptions and regular use of IT-enabled social learning systems, specifically designed for courses emphasizing development of 4Cs, are, unfortunately, very limited [6] [10]. Our anecdotal evidence shows that (a) conservative, "old-school" faculty resist change and align with traditional standardized and non-standardized multiple-choice tests to minimize the cost of administering assessment in large classes and to provide necessary reporting of teaching and learning achievement; and (b) innovative faculty acknowledge the need to advance students' 4Cs and show interest in adopting technologies enabling 4Cs advancement through peer review, but in practice are reluctant to adopt.

The purpose of this proposed study is to answer the following research question: *How instructors' attitudes, subjective norms, and perceived behavioral controls affect intentions to adopt and the actual adoptions of the IT-enabled peer review and assessment systems in their pedagogical practice?*

THEORETICAL FOUNDATION

As the theoretical foundation of our study, we use the theory of planned behavior proposed by Icek Ajzen [1] [2]. This theory links beliefs and attitudes to intentions and actual behavior (figure 1). Based on the literature, we adopt the following definitions of the key concepts of this theory. *Behavioral belief* is defined as the individual's belief about consequences of a particular behavior. *Attitude toward behavior* is the individual's positive or negative evaluation of self-performance of a particular behavior. *Normative belief* refers to the individual's perception of social normative pressures (relevant others'

beliefs that the individual should or should not perform such a behavior). *Subjective norm* is the individual's perception about particular behavior, which is influenced by the judgment of significant others. *Control beliefs* refer to the individual's beliefs about the presence of factors that may facilitate or hinder performance of a behavior. *Perceived behavioral control* is defined as the individual's perceived ease or difficulty of performing a particular behavior.

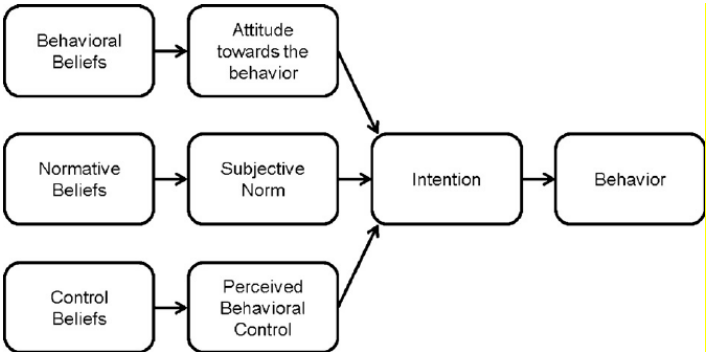

Figure 1. Theory of Planned Behavior Research Model (Adopted from [7])

In the context of our research question, these concepts translate into instructors' beliefs in the efficacy of peer review and assessment in developing 4Cs skills, subjective norms in the instructor's environment that may encourage or discourage the adoption of IT-enabled peer review system, and perceived ease or difficulty of adopting and using such systems. The *intention to adopt* is the instructor's declaration about possible use of such systems, whereas *actual adoption* is actual regular use of a particular system.
We hypothesize that *personal buy-in* for peer learning pedagogy, *departmental and institutional backing*, and *availability of technology support* are the key antecedents to adoption and regular use of IT-enabled peer review systems. Our hypotheses will be more specifically formulated in the full paper following the detailed explanation of the conceptual model of the theory of planned behavior (figure 1).

METHODOLOGY

A large number of instructors from various disciplines will be surveyed at our public, medium-size University in the mid-Atlantic region of the USA. The survey questionnaire will be based on a validated instrument for the theory of planned behavior, adapted to our research question. The survey will be conducted via a web-based system (e.g., Google Forms, Qualtrics, or Survey Monkey). We expect to collect between 100 and 200 questionnaire responses. We will test the internal validity and reliability of our instrument. Data analysis will be conducted using Structured Equation Modeling (SEM).

EXPECTED RESULTS AND IMPLICATIONS

If empirical evidence supports our hypotheses, i.e., that personal buy-in for peer learning pedagogy, departmental and institutional backing, and availability of technology support are the key antecedents to adoption and regular use of IT-enabled peer review systems, this finding will translate into recommendations to education institutions seeking to advance 4Cs through IT-enabled peer review systems.

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