Students' Acceptance of an Educational Videos Platform:
A Study in a Portuguese University

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ABSTRACT

The Educast is an educational videos' platform that captures simultaneously video and digital support materials. This paper presents a study on the acceptance of Educast, by students, using the Technology Acceptance Model–TAM. The data was collected through a questionnaire applied to 54 students which results were analyzed using descriptive analysis and non-parametric tests. It was concluded that students expressed a positive attitude towards the variables Perceived Ease Of Use, Perceived Usefulness and Attitude Toward Using. The comparison between ratings assigned to the questionnaire items by the students who viewed video recordings and those that did not was performed, and it was found that the former showed higher levels of agreement with the referred items than the latter. It is considered that introducing some training before students have contact with Educast should be taken into account. The result of this work can be valuable not only for researchers on the Education area, but also for teachers that intend to use educational videos in their teaching/learning environment.

KEYWORDS

Educast, Educational Video, Higher Education Institutions, TAM

1. INTRODUCTION

The Educast is a platform of educational videos made available to the Higher Education Institutions (HEI) in Portugal. This platform captures simultaneously the live classroom recording in video and the digital support material displayed by the instructor on the computer. In the present study, an experience of the use of this platform is described, in the context of the Curricular Unit (CU) of 'Innovation and Entrepreneurship', taught to several doctoral programs at the University of Aveiro (UA).

This work is part of a project that aims to evaluate the acceptance of technologies as a means to improve the quality of the Teaching/Learning process. The data was obtained through the application of a questionnaire. In particular, the study described in this article aims to evaluate the acceptance of Educast by a group of students from the UA, through the Technology Acceptance Model (TAM) (Davis, 1986). Additionally, a comparison between the ratings assigned to the items by students that have seen at least one recording and those who have not seen any videos was performed.

2. MODELS OF TECHNOLOGIES ACCEPTANCE EVALUATION

There are several models that explain the acceptance of technology by the users, being the TAM one of the most used (Sharma, Joshi, & Sharma, 2016). This model is based on the Theory of Reasoned Action (TRA), in which the Theory of Planned Behavior (TPB) is also based. More recently, the Unified Theory of Acceptance and Use of Technology (UTAUT) was developed based on 8 models, including the TRA and the TAM (Venkatesh, Morris, Davis, & Davis, 2003).

2.1. Theory of Reasoned Action

The TRA model was introduced by Fishbein and Ajzen in 1975, being widely used in social psychology, when the determinants of behavior (Davis, Bagozzi, & Warshaw, 1989) are concerned. This model is a very general model and should be adapted when the objective is to study the determinants of the computer technology's use behavior (Davis et al., 1989). It consists of the variables (1) Actual Behavior, (2) Behavioral Intention, (3) Attitude Toward Behavior, (4) Subjective Norm, (5) Beliefs and Evaluations, and (6) Normative Beliefs and Motivation to Comply. The behavior of the user (Actual Behavior) is determined by the Behavioral Intention, which in turn is influenced by the Attitude Toward Behavior and the Subjective Norm. The Attitude Toward Behavior is influenced by the Beliefs and Evaluations, and the Subjective Norm by Normative Beliefs and Motivation to Comply (Figure 1).

According to Tan and Ramayah (2014), this model has been effectively applied in numerous studies in areas like knowledge management, medical studies, social psychology and information technology adoption.

2.2. Theory of Planned Behavior

The TPB model is a theory that explains individual behavior and was developed based on the TRA. This theory suggests that individual behavior is driven by intention that depends on three factors: (1) Attitude Toward the Behavior, (2) Subjective Norms, and (3) Perceived Behavioral Control, which, in turn, influence each other (Ajzen, 1991) (see Figure 2).

The TPB has been applied in various contexts including technology (Davis, 1989, Chang, 1998), and specifically applied to the use of mobile devices in higher education (Cheon, Lee, Crooks, & Song, 2012).

2.3. Technology Acceptance Model

The TAM, developed by Davis (1986), is the most widely used model whenever it is intended to evaluate the acceptance of a particular technology (Venkatesh et al., 2003).

According to TAM (Figure 3), the Actual System Use (ASU) of the technology being analyzed is determined by the Attitude Toward Using (ATU) that is influenced by two variables: Perceived Ease Of Use (PEOU) and Perceived Usefulness (PU) which, in turn, are influenced by other external

Figure 1. TRA model (Davis et al., 1989)
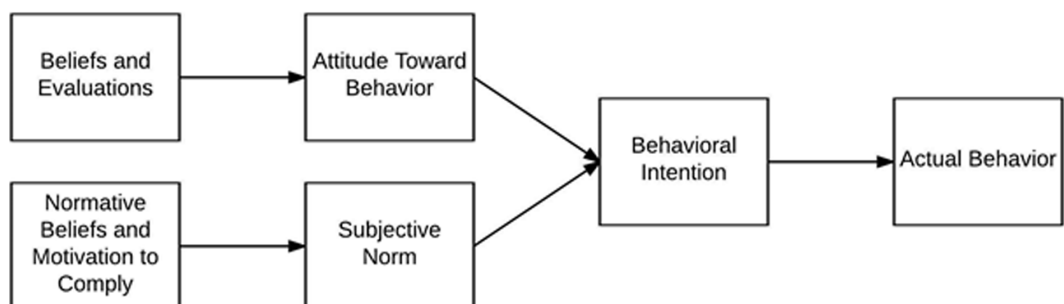
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