Chapter 16

Helping Faculty Overcome Cultural Barriers to Adoption and Use of Web-Based Learning Technologies: A Participatory Action Research Approach

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ABSTRACT

This study adopted a participatory action research (PAR) approach to identify and address some cultural factors that contribute in hindering faculty adoption and use of a Learning Management System (LMS) for Web-based learning at a university in Ghana. This followed a realization that an LMS that the university deployed for E-learning purposes, and had been available for over five years, remained largely unused by faculty members despite that they have been trained, motivated and appropriately resourced to do so. With a preliminary investigation revealing the possible role of cultural factors, this study drew on some aspects of Hofstede’s cultural dimensions theory to conceptualize a research framework, and subsequently engaged 10 faculty members in a semester-long action study. Findings show that by collectively identifying the cultural underpinnings, and conscientiously working on them, faculty members can change their attitudes (as well as those of their other colleagues) significantly, and be better disposed to integrating Web technologies into their instructional activities.

INTRODUCTION

Background

Colleges and universities all over the world continue to invest in Information and Communication Technologies (ICTs) in support of teaching and learning, and are also working at getting faculty and instructors to use these technologies effectively to impact positively on learning outcomes, and also maintain a competitive edge (Grabe & Grabe, 2008). Faculty training is especially imperative because the real

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the value of educational technologies lies in the ability of faculty to integrate these technologies into their teaching and learning, and also use these technologies to further refine their course delivery and student engagement (Grajek & The 2014-2015 EDUCAUSE IT Issues Panel, 2015).

One particular technology that has gained widespread use, particularly in higher education, is the Learning Management System (LMS), also known as Course Management System (CMS) or Virtual Learning Environment (VLE). This is a web-based, user-friendly, software application that provides integrated sets of tools for course administration, communication, tracking of user activities, and assessment of teaching and learning processes (Ellis, 2009). An LMS also permits faculty to incorporate multimedia elements including audio, video, text, interactivity, and sequencing, and is considered to be the most appropriate tool for supporting and enhancing teaching and learning activities (West, Waddoups, & Graham, 2007; Yohon, Zimmerman, & Keeler, 2004). Indeed, this technology has been demonstrated to have positive effects on student learning when used effectively (Harvey, 2003; Salpeter, 1998). Several instances of the LMS currently exist, examples of which include Blackboard, Moodle, Desire2Learn and Sakai.

Dating from the mid- to late-1990s, the LMS has evolved rapidly and most of these instances are being used extensively by higher education institutions all over the world as single integrated platforms for instructional activities ranging from augmenting face-to-face courses, through supporting hybrid courses to implementing fully online (distance learning) courses (Arabasz, Pirani, & Fawcett, 2003; Dutton, Cheong, & Park, 2004; Morgan, 2003). The existence of an LMS in most educational institutions is generally evidenced by the presence of links on their respective websites that bear names such as eLearning, eTeaching, eCampus, Blackboard, Moodle, Virtual Campus etc.

With the knowledge that learners benefit more from LMS facilitated learning processes when instructors are actively involved in guiding, supporting and regularly participating in some of the collaborative activities with the learners (Cavanaugh, 2005), institutions that deploy the LMS tend to place emphasis on training, motivating and resourcing their faculty members to effectively use the technology for collaborative learning (Gautreau, 2011). Research works aimed at identifying the various factors that influence faculty ability and willingness to use LMSs in their instructional activities, particularly online learning, are therefore very relevant, and indeed are ongoing, especially at the institutional level.

Some of these research works have produced findings which reveal that instructors and faculty members generally hold positive views about the potential benefits of LMSs (e.g. Bongalos et al., 2006). However, significant numbers have also been found to, either lack the needed skills (Bichsel, 2014), or are ill motivated to use the LMSs particularly for collaborative learning (Gautreau, 2011; Morgan, 2003). Another major finding is that, for faculty members who use LMSs, most tend to use only the parts or functions that replace the older techniques for reproducing and distributing course documents (Bongalos, Bulaon, Celedonio, deGuzman, & Ogarte, 2006; Dutton et al., 2004; Jafari, McGee, & Carmean, 2006). Yet, most faculty members appear unwilling to participate in, or complete, university sponsored training (Hassan, 2011).

Theories such as Herzberg et al’s Motivation Hygiene Theory (Herzberg, Mausner, & Snyderman, 1959), Rogers’ Diffusion of Innovation Theory (Rogers, 1995) and Fullan’s Change Theory (Fullan, 2001) have been used to help identify and explain the factors that influence faculty members’ inclination to use LMSs in their instructional practices, or otherwise. Thus factors such as; rewards and incentives, technical and administrative support, policy, working conditions, teaching load etc. and their potential impacts on faculty LMS uptake, have been explored and appropriate recommendations made (e.g. MacDonald, Yanchar, & Osguthrope, 2005; Schifter, 2000).