

## Chapter 6

# The Management and Creation of Knowledge: Do Wikis Help?

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### ABSTRACT

*Wikis are frequently cited in higher education research as appropriate and powerful web spaces which provide opportunities to capture, discuss, and review individual, group, project or organisational activities. These activities, in turn, offer possibilities for knowledge development by utilising wiki collaborative active spaces. The chapter uses selected case studies to illustrate the use of wikis to support online community based tasks, project development/processes, collaborative materials development and various student and peer supported activities. A key focus of the chapter is on evaluating the effectiveness (or otherwise) of wikis to create online communities to support knowledge management, development, retention and transfer. By way of contextualising the studies, a variety of examples of the use of wikis in higher education are reviewed. While there are relatively few studies of the use of Web 2.0 for the creation of knowledge, there are a number of reports which indicate the preference for the use of Web 2.0 technologies over the standard virtual learning environments. The chapter concludes with a review of the emergent themes arising and lessons learned from the case studies. This leads into a series of recommendations relating to the effective establishment, design, management and use of wikis to support knowledge creation and collaborative enterprise.*

DOI: 10.4018/978-1-61520-879-1.ch006

## INTRODUCTION

Second generation web technologies, including podcasting, blogs, and wikis, are increasingly being used in higher education (HE) both to support and capture processes employed across a range of different kinds of project-based collaborative activities. Lamb (2004) argues that these emergent technologies are starting to fill a gap in existing practice not filled by other institutional systems, while Dede (2008) suggests that Web 2.0 technologies are redefining how, what, and with whom, we learn. But is the full potential of these new technologies being fully realised within these institutional settings? Can and are these new online spaces affording users with the opportunity to create new knowledge easily as a collaborative enterprise, or are these technologies just being used as cost-efficient knowledge management systems?

## CHAPTER OVERVIEW

This chapter focuses on how wikis might influence the creation and management of knowledge in HE. A wiki is defined as ‘a freely expandable collection of interlinked web pages, a hypertext system for storing and modifying information—a database where each page is easily editable by any user with a forms-capable Web Browser client’ (Leuf & Cunningham, 2001). Wikis’ flexibility, adaptability and potential for increased functionality via Web 2.0 plug-and-play features, has led to their adoption across a wide range of social, educational and business contexts. Wikis are easy to create, use and deploy. Wiki support and functionality is available for mainstream virtual learning environments (VLEs) such as Blackboard, WebCT and Moodle, either integrated within the VLE or provided via third-party plug-ins. Many free providers, for example PBWorks (<http://www.pbworks.com>), offer free wikis with excel-

lent usability and functionality, including content management functionality and storage space.

This chapter will present and describe selected case studies illustrating the use of wikis to support online community based tasks, project processes, collaborative materials development, and various student and peer supported activities. The intention within each of the case studies was to use a wiki to support the collaborative creation of new knowledge as an ongoing process. Structured and unstructured online activities were combined with face-to-face meetings. The level of experience of using Web 2.0 technologies varied: some of the wiki designers had limited or no experience of using wikis to support community development, but all had extensive experience of supporting online community development. Many of the users had never worked online as part of a group. A key question for the authors was to evaluate the effectiveness (or otherwise) of wikis to create online communities to support knowledge management (development, retention and transfer).

The chapter concludes with a review of the emergent themes arising and lessons learned from the case studies. These focus on the affordances of the technology, the collaborative nature of the tasks and how these facilitated engagement by users and explores whether these resulted in the co-construction of new knowledge. A series of recommendations relating to the effective establishment, design, management and use of wikis to support knowledge creation and collaborative enterprise concludes this chapter.

## THEORETICAL UNDERPINNINGS

In pedagogical terms, a key attraction of using wikis is that their structure is shaped from within, rather than being imposed from above by proprietary institutional systems. Therefore, users do not have to adapt their practice to the ‘dictates of a system’, but can allow their practice to define the structure of that system instead (Lamb, 2004). It

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