Wikis in Collaborative Educational Scenarios: Integrated in LMS or Standalone Wikis?

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ABSTRACT

This article outlines a set of features that wiki engines require to successfully host collaborative educational scenarios. The authors explore multiple issues that deal with the use wikis with learning activities. One of the first issues to solve is software support for assessment methodologies. The second is choosing between using an integrated wiki engine inside the Learning Management System (LMS) or an external standalone wiki engine. Advantages and disadvantages from both options of this second issue are discussed. The different implications of each option as far as individual student assessment, feedback, and grading are concerned are also analyzed. Among the expected results, the most notable are incentives to incorporate wikis in the teaching process, significant enhancements in usability, as well as allowing teachers to provide more timely written feedback on their students’ individual contributions on wiki based activities, on top of the usual numerical grading. This paper presents the conclusions of 5 years of experience of work in the field of wikis in education, development of improvements on open source wiki engines and thus, building from scratch accordingly the new wiki engine for the LMS Moodle 2.0.

Keywords: Education, E-Learning, Learning Management System, Social Learning, Wikis

1. INTRODUCTION

The use of wikis in education is of a potentially huge value. Wikis can be applied to foster collaborative work, to promote project based learning experiences, to open the work conducted in classroom to the world, to facilitate information exchange between groups and educational institutions, etc. The possibilities are practically endless (Augar, Raitman, & Zhou, 2006; Educause, 2005; Fountain, n.d.; Garcia Manzano, 2006). So, using wikis as environments for educational activities is definitively an appealing idea.

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The question is what kind of wiki application we need in order to host the educational wiki experiences. We can choose from two basic software architectures: the first one is to use a wiki engine embedded and highly integrated inside the Learning Management System (LMS), host of the “virtual campus” of the educational institution, such as Moodle (http://moodle.org), Sakai (http://sakai.org) or Dokeos (http://dokeos.org). The second option is to use some vertical wiki application, such as MediaWiki (http://mediawiki.org) or Tiki Wiki CMS/Groupware (http://tiki.org), stand-alone web applications, to conduct a fairly free wiki experience outside of the boundaries of the educational institution.

In both cases, basic conclusions from previous works have to be taken into account as premises in order to ensure the effective use of wikis in Education. These include:

a. WYSIWYG (What You See Is What You Get) is not necessarily a “must” feature because basic wiki markup seems to be easy enough to understand and use even for primary education pupils (Désilets Paquet & Vinson, 2005);

b. The main handicaps that prevent users from having a successful activity seem to be the lack of motivation and usability (Kickmeier-Rust, Ebner, & Holzinger, 2006);

c. Our experience indicates that students usually don’t participate much (if any) in wikis if there is no grading “retribution” for that participation. This is similar to what has been reported for professional sites where potential contributors don’t see its worth, provided the institution hosting the wiki does not offer any benefits to make up for the time spent contributing (Giordano, 2007);

d. In order to enhance their learning, students need “on time” feedback for their individual contributions in the class or the workgroup (Diaomond, 2004). Teachers, on the other hand, need tools that facilitate the task of quickly providing objective feedback, assessment, and grading of groups and individuals alike (De Pedro, 2007).

2. INTEGRATED IN LMS, OR STANDALONE WIKI?

Some benefits and drawbacks arise from any of these two contrasted options. Some of them will affect the possibilities to establish certain teaching, assessment and grading strategies.

The managers of educational institutions will prefer the use of wiki integrated in the LMS, provided it complies with the basic features and selection criteria commonly requested (Schwarts, Clark, Cossarin, & Rudolph, 2004). The main reasons are pretty obvious: out of the box integration of user authentication and authorization, plus the fact that the wiki is integrated in the LMS structure (course, categories, permissions and roles, tags, search features, course information, access logs, etc.). Moreover, the corporate image is preserved due to the use of the institution “theme/skin,” color scheme, etc.

This way the wiki becomes part of the institution’s portfolio of educational software tools, and educators can be instructed on how to use it in their courses. So everything is kept under control for the educational site managers. Some examples of this type of wiki would be the Wiki Module packages for Moodle (eWiki, the default wiki engine for installations up to branch 1.9, included), dfWiki, nWiki or ouWiki (Moodle Nwiki); RWiki: Sakai Wiki Tool (Boston, 2006), or CoolWiki extension for Dokeos (Cool, 2007).

Usually the embedded Wikis are more limited in features compared to some full featured and mature Wikis. Under some pedagogic scenarios, or technical requirements in some specific areas, simple wikis seem to be lacking (Choy & Ng, 2007: De Pedro, 2008). Sometimes there is the need to receive RSS feeds or email notification of changes on multiple pages from some student groups on long term collabora-
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