# Chapter 3.17
# Using Wikis in Teacher Education:
## Student-Generated Content as Support in Professional Learning

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## ABSTRACT

This chapter reports on the use of online open content software as a learning resource for students enrolled in an initial teacher-training program at a British university. It features a study undertaken to support the development of professional practice in teacher education for undergraduate and postgraduate students using wikis. The 14 cohorts of student teachers in the program (n = 237) approached the activities in blended format, using a wiki as both a repository to store and retrieve their work, and as a discussion space where they could engage in dialogue with their peers and tutors outside of the classroom. Those who responded to the online questionnaire reported on their perceptions of the wiki as a learning environment. The main findings of the study are that students generated a large amount of content in a short space of time using the wiki and enjoyed its collaboration and communication tools, but resented the added time burden of having to complete minimum core tasks online. Students also found initial use of the wiki problematic due to lack of familiarity with the tools and the concept of group editing. The introduction of a series of wiki activities provided useful scaffolding for structured support in professional learning.

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## THE RISE OF SOCIAL SOFTWARE

Social software, it is claimed, has brought renewed enthusiasm to the use of web-based tools in education (Jones, 2007). Because it relies heavily on user collaboration, social software has been instrumental in restoring the Web, reconciling it to the original vision of a space where all are able

to participate (Schaffert, Gruber, & Westenthaler, 2006). The tools and features that contribute to the social Web (or Web 2.0)—for example, blogs, wikis, and social networking sites—have been dubbed the "architecture of participation" (O'Reilly, 2004) because they encourage users to move away from passive reception of the contents of web pages toward active involvement and even content generation (Kamel Boulos & Wheeler, 2007; Williams & Jacobs, 2004). Web 2.0 tools offer students the opportunity to create, edit, share, and publish knowledge and information within and across communities of practice and interest (Rudd, Gifford, Morrison, & Facer, 2006). This is, of course, a highly desirable outcome for professional learning in that it fosters reflective learning and encourages engagement within the learning community. One social software tool, in particular, the wiki, is a website that can be edited and expanded by anyone who is a registered user. The wiki idea was first conceived by Ward Cunningham as a means of quick and easy online collaborative text editing (Cunningham & Leuf, 2001) and has rapidly caught on as an online collaborative tool for within education (Wheeler, Yeomans, & Wheeler, 2008). Wikis incorporate a number of content generation support features that enable students to contribute toward a shared online repository of knowledge, including tagging, versioning, hyperlinking, and commenting (Trentin, 2009). Wikis not only create opportunities for students to benefit from the knowledge of others; there is also evidence that users can create their own group consciousness which contributes significantly toward community building (Fuchs-Kittowski & Kohler, 2005) and create their own "knowledge structures," thereby achieving a sense of ownership (McGill, Nicol, Littlejohn, Grierson, Juster, & Ion, 2005).

There is however a caveat: Anyone who enjoys orderliness and clear structure could be uncomfortable when working with wikis. They generally appear to be chaotic and unstructured as they are constantly under development and are invariably a "work in progress." As such they tend to have only a primitive form of navigation, so users must rely on hyperlinking and the use of a search function to locate useful information (Elgort, 2007).

## WIKIS IN EDUCATION

Several successful uses of wikis have previously been reported in a number of educational contexts, including compulsory (K-12) education (Richardson, 2006), teacher education (Wheeler et al., 2008), medical and clinical education (Kamel Boulos, Maramba, & Wheeler, 2006), university education (Bruns & Humphreys, 2005), language teaching (Godwin-Jones, 2003), and a host of other learning contexts (Lee, 2005; Parker & Chao, 2007). All the quoted studies share a growing understanding of the collaborative learning potential of wikis and their potential to actively engage students in learning. Previous studies have also shown that some students become aware of a larger audience when creating wiki content, and subsequently write more concisely and accurately (Wheeler et al., 2008).

Wikis also have specific pedagogic functionality. They are useful for creating a record of knowledge accumulation over a period of time, but they cannot and should not be used to generate quick answers or solutions. For iterative work, where students are required to discuss, construct, and negotiate meaning, they are an ideal tool. Most wikis feature a number of collaborative tools, including threaded discussion boards, tagging facilities, and messaging features. Site moderators can gain access to a page history tool that enables them to roll back to a previous version of the page if someone inadvertently deletes important content, or in the event of vandalism. For teachers, the wiki also offers the capability to track changes made on pages, and to view online transactions such as who has done which page edit, complete with a date and time stamp. Wetpaint (http://www.