

Chapter 29

Integration of Web 2.0 Collaboration Tools into Education: Lessons Learned

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ABSTRACT

Web 2.0 is opening new capabilities for human interaction. It also broadens the way technology is used to collaborate more effectively. This chapter discusses instructional strategies and techniques used to successfully utilize Web 2.0 tools for classroom collaboration. It will also shed light on pedagogical issues that arise with the implementation of Web 2.0 into the educational setting. The chapter will present case studies describing how various Web 2.0 applications can be incorporated into a variety of courses in the areas of nursing, education, and computer information systems. Finally, recommendations for teachers and students on how to effectively use Web 2.0 tools to improve collaboration will be outlined.

INTRODUCTION

The Internet has had a phenomenal impact in the educational setting creating opportunities in e-learning, information access, publishing and research. Some University officials were concerned that the Internet would destroy the traditional campus life (Ryan, 2001). This is far from the case. The Internet has presented new opportunities along with some significant challenges to the

educational setting. The emergence of Web 2.0 into the education setting is having the same impact as Web 1.0 but is much more pervasive and powerful. The idea that students can collaborate in real-time to create digital contents such as words, programs, images or theories is a compelling notion. In addition to content creation, students can now access a vast amount of information from a variety of excellent and dubious sources. The challenge for educators is to comprehend how to utilize the tools and applications to improve the teaching and learning process.

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One of the main objectives of this chapter is to demonstrate how Web 2.0 is changing the landscape of higher education and the application of Web 2.0 learning technologies. Further, this book chapter will present a number of case studies describing how various Web 2.0 applications can be incorporated in variety of courses in the areas of nursing, education, and computer information systems.

The chapter will discuss instructional strategies and techniques used to successfully utilize Web 2.0 tools for classroom collaboration. It will also shed light on pedagogical issues that arise with the implementation of Web 2.0 into the educational setting. Specifically, the chapter will be broken down into four sections as follows: The first section will focus on the concept of collaboration and the benefits of collaboration in the classroom environments, and theories of learning in collaboration. The second section discusses Web 2.0 concepts and terminology and describes Web 2.0 services. The third section focuses on four educational cases utilizing Web 2.0 applications in graduate and undergraduate courses in the areas of nursing, education, and computer information systems. Prior to the conclusion, the fourth section will outline recommendations for teachers and students to effectively use Web 2.0 tools to improve collaboration.

SECTION 1: COLLABORATION

This section will focus on the concept of collaboration and its benefits as related to Web 2.0 phenomenon.

The Importance of Collaboration in Education

The importance of collaboration in education has long been acknowledged. It is a critical aspect of successful teaching and learning practices and achieving better outcomes. Collaboration is an

intricate concept with multiple attributes. The term is hard to define because it encompasses a variety of activities such as peer response groups, peer tutoring, peer workshops, group research projects, classroom group discussions, and learning communities.

The focus of this chapter is on what is most useful about collaboration within the context of education: how we can usefully share ideas and information among the members of a project and what it is about this team project that creates benefits for the collected individuals involved in this project. According to Linden (2002), collaboration can provide the following benefits: Better use of scarce resources; cost savings; ability to create something that you cannot create on your own; higher quality, more integrated product for the end users; potential for organizational and individual learning; and better ability to achieve important outcomes.

When creating an effective collaborative environment, instructors always consider using technology and the Internet. In the last few years Web 2.0 – more collaborative Internet – has created a buzz in education. Web 2.0 programs are rapidly becoming tools of choice for a growing body of classroom educators. University instructors are discovering that Web 2.0 tools provide compelling teaching and learning opportunities. It is obvious that the Web 2.0 is changing the very nature of student work. The fact that a student's work can be seen, commented on, and collaboratively improved by a larger *participative* group of people has a very favorable effect on students' engagement with course content. Students become more involved in educational discussions and debates. They come to realize that they work collaboratively with their peers and not just their instructors in the discovery, exploration, and clarification of knowledge. A very proactive learning environment is the result of effective use of the Web 2.0 tools.

To sum up, Web 2.0 is opening new capabilities for human interaction. It also broadens the ways

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