Chapter 13
Web 2.0 in the Classroom

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ABSTRACT

The suitability of Web 2.0 technologies for learning has been widely discussed in the literature. The Web 2.0 term refers to what is understood as a change to a second version or generation of the web, with a distinct model for application development and design. This new model is based on enhanced communication and collaboration tools and services, information sharing, and interoperability. This trend has enabled the creation and development web-based communities, web-hosted services, and a diverse set of web applications. Some of the most known examples include social-networking sites, video-sharing sites, wikis, and blogs. This chapter reviews some of the major web 2.0-based tools and provides examples of their use in an educational setting. The goal of the chapter to expose readers to such tools, describe and exemplify their potential use in the classroom. We introduce Web 2.0 fundamental concepts, discuss its importance for educators, and suggest means for effective integration into the classroom. Readers in the field of education will find information and tools that can be applied in classrooms at the elementary school level to graduate- level classes. The chapter includes major challenges and key issues in the use of web 2.0 tools for learning, and serve as preview of the current trends in this environment.

INTRODUCTION

The Horizon Report: K-12 Edition (NMC, 2009) presents a thorough analysis of emerging technologies that are "likely to have a large impact on teaching, learning, research, or creative expression within

education around the globe" (p.3), focusing on the pre-college sector. The report adopts three distinct horizons of adoption, namely one year, two to three years and five years. In all studied timeframes, the identified topics include prominently web 2.0 technologies. Moreover, the report also identifies key trends that affect K-12 education. These trends are profoundly influenced by web 2.0 technolo-

gies, because they are directly related to the way we collaborate and communicate in all settings. Technology Skills have become essential to success. The web has become a personal experience, provided that emerging tools allow users to customize their virtual experiences. The ubiquitous availability of technology has thus placed high stakes in acquiring these skills through education. Through the use of technology for learning we are not only able to facilitate the learning process, but also provide learners with critical skills for any of the evolving occupations and multiple careers they might face throughout their lives. Thus, as in businesses, there is a pivotal need to embrace technology in schools, and "learning experiences must reflect the growing importance of innovation and creativity" (p.6).

The suitability of Web 2.0 technologies for learning has been widely discussed in the literature (Alexander, 2006). The Web 2.0 term refers to what is understood as a change to a second version or generation of the web, with a distinct model for application development and design. This new model is based on enhanced communication and collaboration tools and services, information sharing, and interoperability. This trend has enabled the creation and development web-based communities, web-hosted services, and a diverse set of web applications. Some of the most known examples include social-networking sites, video-sharing sites, wikis, and blogs.

This chapter reviews some of the major web 2.0-based tools and provides examples of their use in an educational setting. The goal of the chapter to expose readers to such tools, describe and exemplify their potential use in the classroom. In what follows, we introduce Web 2.0 fundamental concepts, discuss its importance for educators, and suggest means for effective integration into the classroom. Readers in the field of education will find information and tools that can be applied in classrooms at the elementary school level to graduate- level classes. The chapter also includes an overview of challenges and concerns from educators and parents, which have been a major cause for the frequently significant lack of support for a sustained adoption of such tools in the teaching and learning process. For the most part, concerns are related to student security, exposure to questionable materials, and access from individuals outside of the schools' control. This lack of support for Web 2.0 applications by traditional educational establishments promises to widen the gap between students' information technology literacy and the needs of a 21st century workforce.

Following this introduction, the chapter also provides a review of different educational areas for effective deployment of Web 2.0 tools:

- Digital storytelling and presentations
- Collaboration and Network Building
- Storing and Sharing Information
- Online Synchronous Communication tools

Under each area, the chapter provides a review of various tools and applications that can be utilized in by teachers and students for learning. Recommendations as to effective uses, challenges, critical issues and guidelines to find additional information are provided.

Finally, in the conclusions, major challenges and key issues in the use of web 2.0 tools for learning are discussed, and serve as preview of the current trends in this environment.

BACKGROUND: REVIEW OF THE LITERATURE

It is said that O'Reilly (2005) coined the term 'Web 2.0' when referring to practices and technologies emerging on the web after the fall 2001 dot.com shake up. The term in a sense is still debated and there seems little rigor in its usage. However, it is undeniable that there is an essential new way of capitalizing on the use of web-technologies. Web 2.0 is a generalizing term that centers on a major shift in the way the web is utilized. While

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