

Web 2.0 Tools

Web 2.0 is a term that began in popularity over a decade ago (Cormode & Krishnamurthy, 2008). Web 2.0 is considered to be an improvement over the original Internet. Initially, the Internet was primarily static, users would passively receive information from various Web pages; however, with Web 2.0, users are much more engaged, posting comments, uploading content, and interacting with other users. Many tools have been introduced that exemplify Web 2.0 collaborative characteristics: media sharing sites (e.g., Flickr, Instagram, YouTube), social networking sites (e.g., Facebook), blogging and microblogging sites (e.g., Tumblr, Twitter, Blogger), social bookmarking (e.g., Delicious), and collaborative knowledge development wikis (e.g., Wikispaces). Perhaps the most popular Web 2.0 example, Wikipedia, has become one of the largest reference websites. Individual users (over 76,000 active contributors) can create or update articles on virtually any topic (currently more than 34 million articles in 285 languages).

Web 2.0 tools have increased user interaction and engagement because these tools are simple enough for basic users (Hew & Cheung, 2013). Students in particular, are taking advantage of Web 2.0 tools and using them for both personal and learning purposes. Greenhow, Robelia, and Hughes (2009) reconsidered how the new advantages of Web 2.0 can impact teaching and learning. They suggested that "with technical expertise now serving as less of a barrier, and expanded Web access and contexts for learning, Web 2.0's affordances of inter-connections, content creation and remixing, and interactivity might facilitate an increased research interest in learners' creative practices, participation, and production" (p. 249). In K-12 environments, more teachers and students are taking advantage of these affordances. However, some teachers and students have also expressed frustrations associated with using Web 2.0 tools. Teachers have reported that student papers and projects created with Web 2.0 tools may be more time consuming to grade and provide feedback, while students indicated that technical issues, poor time management, and Internet distractions made Web 2.0 assignments more challenging (Nair, Tay, & Koh, 2013).

In a review discussing the impact of Web 2.0 tools on K-12 student learning, Hew and Cheung (2013) suggested that any positive impacts on student learning were more indicative of how the Web 2.0 technologies were used, as opposed to the tools themselves. For example, using blogs for peer review or self-reflection, or using a podcast to review information, seemed to increase student achievement; however, the increased achievement may have had more to do with the instructional strategy used (i.e., peer feedback and review), than the use of the tools (blog and podcast). The Web 2.0 tools just made it easier and more efficient to implement the strategies (Hew & Chung, 2013). Thus, from an instructional standpoint, it may be more important to focus first on the instructional strategy that is most effective for meeting learning goals, and then examine the Web 2.0 tools available that can facilitate the implementation of that strategy.