

**Web 2.0 is essentially an increasing range of software that supports a variety of technologies for open and collaborative communication, learning and creativity. Discuss.**

This essay explores the importance of Web 2.0 technologies, and how Web 2.0 assists with open and collaborative communication, learning and creativity. To provide a deeper understanding of the nature and importance of Web 2.0, an explanation of Web 2.0 will be given, which will include a comparison of Web 2.0 with Web 1.0. It is important to consider how students learn, and this will also be explored in this essay. This essay will also look at how Web 2.0 meets learning needs, examples of using Web 2.0 for collaboration and learning, as well as further examples of Web 2.0 allowing a very high level of creativity.

Maloney (2007, ¶ 9) provides a good explanation of what Web 2.0 is by defining it as a “new focus on innovation, creation, and collaboration, and an emphasis on collective knowledge over static information delivery, knowledge management over content management, and social interaction over isolated surfing.” This explanation clearly defines the advantages that Web 2.0 provides, and the fact that it is a new way of learning, collaboration and creativity. Maloney (2007, ¶ 9) continues this explanation by stating that Web 2.0 involves tools such as blogs, wikis and social networking websites and that these “all encourage a more active, participatory role for users.” This highlights the importance of Web 2.0 – it is more than just reading a web page or looking at images; instead, users are contributing to the Internet by using a variety of tools and sharing their contributions with others. Web 1.0 is what was stated previously, such as simply reading web pages and viewing images. A good example of what Web 1.0 is that “content was written, edited, and published by a select group of people, much the same way books are published.” (Baumann, 2006, ¶ 5). This example highlights the limit of Web 1.0 in that while it

will contain a wealth of information, participation and interaction is very limited. Web 2.0 has moved beyond this level of simply reading, by allowing active participation by anyone with an Internet connection.

It is critical to understand how students learn in order to draw a connection between learning and the Web 2.0 environment. Many theories have been developed by many people about how students learn, but one common factor among many of these theories is the importance of social interaction. “Social interaction is particularly important because children are interacting with their peers – that is, those who think in similar ways and who have had similar experiences, but who have a slightly different perspective that challenges the children’s thinking and stimulates cognitive development.” (Krause, K., Bochner, S., Duchesne, S., 2006, p. 62). This statement is developed based on Piaget’s ideas of cognitive development and it highlights the important role that social interaction has in a child’s cognitive development. As stated, it is by sharing thoughts and experiences with one another that a child’s thinking is challenged and expanded. Social interaction, therefore, can help to engage students in higher order thinking and questioning. It is an important aspect of learning that must be considered by the teacher. Another important theory about how students learn was developed by Gardner. Gardner developed a list of multiple intelligences, which included intelligences such as musical, interpersonal and logical. (Marsh, 2004, p. 228 – 229). The theory of multiple intelligences is another theory of learning that teachers should take into account when planning lessons. Marsh (2004, p 229) recognises that by catering for the multiple intelligences, children’s talents and skills can be developed. Given that Gardner lists interpersonal and intrapersonal elements as two of the multiple intelligences, again emphasises the importance of social interaction in learning.

There are many Web 2.0 tools available on the Internet to help with collaboration and learning. One important Web 2.0 tool that can be used is a wiki. A wiki is “a collaborative website workspace that multiple people can edit together, share files and documents, and collaborate.” (PBwiki.com, 2007). A wiki is an excellent example of a Web 2.0 as it allows for collaboration and a number of people working together and learning from one another. This links back to Piaget’s theory of social interaction for cognitive development. As a result, a wiki could be used in the classroom for general class work, homework or assignments, especially for group related tasks. As Doe (2007, ¶ 6) points out, “the really powerful reason to use these platforms, however, especially with middle school and older students, is that many students are blogging or using wikis on their own. The classroom-related use of these forums can bring student enthusiasm to writing in a more formal context.” The great advantage Doe has stated is that using new technologies in the classroom, such as blogs and wikis, are engaging and relate well to students’ past experiences. There are many other Web 2.0 tools that have been developed such as del.icio.us which allows online bookmarking of pages, but also sharing these bookmarks with other users. Web 2.0 has a strong focus on collaboration, and all the tools discussed so far meet this need.

Web 2.0 is an efficient way of catering for social interaction and Gardner’s multiple intelligences in learning. “The new-generation Web 2.0 solutions are easier and more engaging to use, and they are proving to have a larger impact on collaboration and communication in the classroom than complex technologies of the past.” (Driscoll, 2007, ¶ 1) This statement reflects the importance of Web 2.0 in collaboration and social interaction. Web 2.0 caters for social interaction and Gardner’s multiple intelligence through many resources. There are many Web 2.0

tools that focus on each intelligence, such as the visual and musical intelligence; however, all Web 2.0 tools involve interpersonal and intrapersonal skills which is what makes them collaborative and Web 2.0. One example of this is the online software Bubbl.us. This software allows people to create their own mind map, which caters for visual learners, but then easily share it with people on their list of friends. Making use of Web 2.0 can also be helpful when activities involve Bloom's taxonomy. Bloom's taxonomy is comprised of six basic objectives: knowledge, comprehension, application, analysis, synthesis and evaluation, with knowledge starting at the basic level and evaluation the highest level of thinking. (Marsh, 2004, p. 134). For example, students could be asked to undertake research tasks ranging from finding facts to evaluating a website someone made. The advantage of Web 2.0 is that students could then present their findings on a blog or wiki, as a group if needed, instead of simply writing a long essay. This relates back to the idea that Web 2.0 is engaging for children, as it is still new and developing, but that it is part of most of their lives already.

A key objective that Web 2.0 can focus on is creativity. This element of creativity is part of Bloom's taxonomy, under the fifth level of synthesis (Marsh, 2004, p. 134). A number of Web 2.0 tools allow for a very high level of creativity, therefore expanding thinking to a higher level. One basic example of creativity in Web 2.0 is through wikis and blogs. A simple blog will contain a number of posts and a few images; however, with an understanding of how the software works, students can develop their blog or wiki into their unique space on the Internet for others to see. There are also other Web 2.0 tools for creating and sharing videos. These tools assist learners with a visual style of learning, and again, allow collaboration – the key aspect of Web 2.0. Students are able to create videos using single frame images and also

videos from their digital video camera to share with one another. “Each video is a fully customized orchestration of user-selected images and music.” (Animoto, 2007). This quote from the Animoto website shows that their service allows users to customise their videos using both images and music. Creating videos can help students, particularly with visual or musical learning styles, expand their thinking and creativity. It is something new and engaging to education and allows endless possibilities. Creating and sharing a video would be a more effective way of learning than simply writing an essay or report, for some students with different intelligences and learning styles.

This essay has explored the importance of Web 2.0 in education, specifically its ability to support collaborative communication, learning and creativity. A comparison between Web 1.0 and Web 2.0 has been made to outline the significant changes developed in Web 2.0. Theories of how students learn have also been looked at, with a specific focus on Piaget’s theory of collaborative learning and Gardner’s theory of multiple intelligences. A connection has been made between these theories of learning and how they are used in Web 2.0. An important aspect also explored has been that Web 2.0 can allow for a high level of creativity, which links to Bloom’s taxonomy. A number of examples of Web 2.0 software have also been discussed to develop an understanding of how Web 2.0 assists learning.

### Reference List

Animoto. (2007). *A N I M O T O: the end of slideshows*. Retrieved October 26, 2007, from <http://www.animoto.com>

Baumann, M. (2006). Caught in the Web 2.0. *Information Today*. Retrieved from <http://search.ebscohost.com.ipacez.nd.edu.au/login.aspx?direct=true&db=cph&AN=22342531&site=ehost-live>

Driscoll, K. (2007). Collaboration in Today's Classrooms: New Web Tools Change the Game. *MultiMedia & Internet@Schools*. Retrieved from <http://search.ebscohost.com.ipacez.nd.edu.au/login.aspx?direct=true&db=cph&AN=25082726&site=ehost-live>

Doe, C. (2007). Writing Software And Webware In The Age Of Social Computing. *MultiMedia & Internet@Schools*. Retrieved from <http://search.ebscohost.com.ipacez.nd.edu.au/login.aspx?direct=true&db=cph&AN=25912204&site=ehost-live>

Krause, K., Bochner, S., Duchesne, S. (2<sup>nd</sup> ed.). (2006). *Educational Psychology: for learning and teaching*. South Melbourne, VIC: Thomson Learning Australia.

Maloney, E. J. (2007). What Web 2.0 Can Teach Us About Learning. *Chronicle of Higher Education*. Washington, DC. (ERIC Document Reproduction Service No. EJ 756 805).

Marsh, C. (3<sup>rd</sup> ed.). (2004). *Becoming a teacher: Knowledge, skills and issues*. Frenchs Forest, NSW: Pearson Education Australia.

PBwiki. (2007). *Free wiki | Business – Personal – Education | PBwiki.com*. Retrieved October 24, 2007, from <http://www.pbwiki.com>