

The Educational Value of Web 2.0 Technologies in a Social Constructivist and Situative Learning Theory.

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To be able to analyse and criticise the educational value of Web 2.0 in education, we first need to define what we see as 'educational value', and also, what we are referring to when we talk about 'Web 2.0'. Educational value could be seen as any activity that increases a student's understanding of a topic, its maximum potential being to give a measurable increase in the achievement of the student, both in their exams and their chosen career. This essay will argue, that whilst Web 2.0 technologies may not directly increase the exam grades of students, they can definitely give the student a greater sense of ownership over the materials they study, and go a long way to meet the personalised learning targets set by the DfES. There are also considerations that we need to bear in mind about the safety of Web 2.0 technologies, and these are not overlooked in this essay.

This essay explores the value added by Web 2.0 technologies, when used in a social constructivist teaching methodology, as well as in blended learning styles. It takes into consideration the DfES agendas on e-learning and personalised learning, and draws the conclusion that, correctly used, Web 2.0 technologies can provide a viable framework for schools to meet these targets.

Web 2.0 technologies could be seen by some as the latest buzz word sweeping the Internet. There seems to be another Web 2.0 site or software application turning up every minute. It is beyond the scope of this essay to cover all types of Web 2.0 software available, therefore I shall detail the types of technology that I feel have the most relevance to education, whilst providing a broad definition of what is meant by the term 'Web 2.0'.

Web 2.0, broadly speaking, is software that enables the user or consumer the opportunity to become the creator or broadcaster. More often than not, this type of software also has the ability for communities to develop around its self, with other users sharing and commenting upon the broadcasts of others. The main types of Web 2.0 technologies that are going to be of use to the educational sphere are Wiki's, Blog's, RSS, Social Bookmarking, Message Forums and Virtual Chat rooms.

Social Constructivism is a pedagogy that states that:

“knowledge is the result of social interaction and language usage, and thus is a shared, rather than an individual, experience.”

Dolittle, P. (1999) *Constructivism and Online Education*. [Online] Available: <http://edpsychserver.ed.vt.edu/workshops/tohe1999/text/doo2.pdf> [Accessed: 28/02/07]

Therefore, the use of software that requires social interaction and develops a community around itself, lends itself towards this pedagogy with ease. By their very nature, Web 2.0 technologies, lend themselves towards this type of pedagogy. Most Web 2.0 technologies would be nothing without the social and community interaction with them. These

technologies can be utilised in the classroom environment, as well in the distance learning scenario. For example, a Wiki could be used by an ICT teacher to get students working on a help manual for a piece of software. By its very nature, a Wiki will allow students to view each others ideas, change other people's comments and build upon their knowledge by interacting with the other students. This type of learning is not always readily available in the standard, teacher-lead classroom environment, however it could prove very beneficial to many students.

So, this raises questions about how well these technologies can guide this kind of peer-lead learning. Additionally, there are pitfalls and concerns that need to be considered, whilst employing this kind of technology in our teaching and learning experiences. Without participation from the learners, Web 2.0 technologies will provide very little in the way of educational value. Therefore, it requires a teacher with the motivation and skills to develop these learning methods, to set up and drive the use of the technologies. However, once the technology is set up and the students are inspired to use them, the teacher can take a less active role, maybe guiding the direction that the learning is taking when necessary. Perhaps the most beneficial use of these technologies is going to be in the blended learning environments. The role of classroom teacher will never be replaced by technology or software, and our school children will, for the foreseeable future, still be taught in the typical classroom environment. So then, where does Web 2.0 fit into this environment?

Many schools have already successfully deployed Virtual Learning Environments, and use them to enhance the delivery of their standard curriculum. Many VLE's incorporate a large number of Web 2.0 technologies, and these are being used by schools to support the standard curriculum. Students can use the VLE to complete homework tasks, to revise for exams, or to post questions about areas they do not understand for teachers and students to give answers and support. At South Hunsley School, North Ferriby, message forums are seen to be used to great effect, with some departments having extremely active boards, where students help each other out and answer one another's questions. This is most definitely a positive and innovative example of how Web 2.0 technologies can be used to support and enrich the current curriculum.

One of the main criticisms of Web 2.0 technologies, is that they do not create true communities, and the social interaction is not true interaction, as the vital part of person to person contact does not happen. If you read Wenger's summary of communities of practice in the educational sphere, he states that the school is no longer the centre for learning. It is no longer the place where students come to acquire knowledge to use in the outside world. It is life where learning takes place, and the classroom is just one part of that life. Wenger, E. (2005) *Communities of practice a brief introduction* . [Online] Available: http://www.ewenger.com/theory/communities_of_practice_intro_WRD.doc [Accessed: 28th Feb 2007]

From this statement of Wenger's, we can draw the suggestion that schools need to embrace these new technologies. Students will learn in what ever situation they are in, be it at school, out with their friends, or at home on the Internet.

So, why should schools not utilise these technologies to enable the student to carry on their learning in hyperspace? Is the learning and knowledge that is acquired by the student any less valid, because it was carried out through a computer rather than face to face? It was Wenger, along with Lave (1991), who proposed the model of 'situated learning'; the idea that all learning happens in a social and physical environment. There is no longer a necessity for the learning to take place in a school, lead by a teacher at the

front of the class. For schools not to adopt the technologies that most of their students are already fully conversant in would be foolish, and would pose the risk of leaving the educational sphere behind the ever changing pace of technology. It is important to remember that the large majority of students starting at secondary school nowadays, are digital natives. They have grown up around PC's, the Internet and instantly accessible information. They will expect the same from their school based education, and if they do not receive it they will become disillusioned with the education system and look elsewhere for their learning. At the age of thirty, I am not a digital native. I remember when the only computer was a BBC Micro, and you had to programme in BASIC to get anything to happen. The children of today can find their way around a web site as easily as they could find the swings in a park.

The government has released its E-Learning strategy, and its strategy on Personalised Learning, meaning that by 2008, all schools in the UK will be required to provide a Virtual Learning Environment for their students. This environment needs to be a personalised space, where students can take charge of their own learning. They will be able to learn at their own rate, in their own time. These strategies go a long way in adopting the pedagogies of Social Constructivism and Situated Learning, and with the use of the Web 2.0 technologies, schools can truly become a place where learning can happen in any time frame for any student. This development will create confident students who have the skills to acquire information in the modern day work place, and encourage self – led learners.

In conclusion, by schools adopting these new technologies, and combining them with the standard curriculum as blended learning, they will be able to support a greater variety of students and keep more of those students engaged. The considerations that need to be kept in mind, are those of open and free accessibility; in terms of both physical and mental impairments. There also needs to be recognition of the various social and financial disadvantages experienced by some students that may restrict their access to ICT outside of the school environment. The role of teacher will be just as vital, as these technologies can never equip our children with the skills they need to interact with people on a day to day basis. Face to face communication is the most important type of communication in our world. The other area that could present challenges to overcome, is that of teacher training. Teachers who are not presented with the opportunities and motivated to adopt and learn these new technologies, may well fall behind and lack confidence in using them. Factors such as time constraints, access to ICT and skill levels will all need to be considered when planning and implementing a school strategy in the adoption of these technologies. Such a policy should be the product of the careful collaboration between ICT and curriculum managers, who should be led by the evaluation and input of teachers and students, to ensure a workable model is realised and continually developed. It is essential that the implementation of Web 2.0 in education is backed by a strong and realistic programme of training for all teachers, regardless of experience, and should continually develop to meet the changing needs of learners and teachers.

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