Chapter 7
Technology:
A Tool for Creating Collaborative Learning Environments

Rita Gravina
The Bishop Strachan School, Canada

Helena Pereira-Raso
The Bishop Strachan School, Canada

EXECUTIVE SUMMARY

Collaboration is an important aspect of how our world functions today and an element at the core of rich learning opportunities. The role of educational institutions is one that provides provoking settings so that learning is deep and sustained well beyond the classroom walls. Learners are currently in a paradigm where they are able to learn at all hours of the day; they are no longer in a framework where learning is exclusive to a classroom. Teachers and students at The Bishop Strachan School are exploring this through the various uses of teaching and learning strategies and enriching these strategies with Web 2.0 applications. This chapter will present early explorations in the school with Wiki pages, social networking tools, such as NINGs, interactive timelines, and real-time applications, such as Google apps. Each of the cases provides an authentic learning experience for students and moves the student's work out into the world.

ORGANIZATION BACKGROUND

The Bishop Strachan School (BSS), a single-gendered K-12 independent school in Toronto, Ontario, has been an environment that embraces new technologies and that has explored the integration of technology in the classroom. While ensuring that the expectation and goals of government guidelines are met, this school has experimented with constructivist approaches to learning and the integration of technology. Started as a pilot project in 1999 for all grade nine classes, the school is now fully wireless and laptop-based. Each student owns a laptop that she uses both inside and outside the classroom. The examples discussed throughout are ones of integration between the curriculum and technology students are able to access materials for all courses on-line and utilize social media tools. As a result of being able to access these technological tools students are able to collaborate with their peers, other schools, and experts in the field. Having a gateway into the vast 21st century world of information, exploration, and interactivity allows for authentic and real-life learning. The emphasis has shifted from a teacher-centered to a learner-centered environment in which the role of the teacher is that of facilitator and where different modes of learning have been able to flourish. This transition can be partly attributed to a deep commitment at BSS to technological innovation.

BUILDING A CULTURE OF POWERFUL LEARNING

According to Duffy and Jonassen (1992), "the information age and the technological capabilities have caused us to re-conceptualize the learning process and to design new instructional approaches" (p. ix). They further notes that "[b]oth the learning process and the instructional approaches are consistent with the constructivist epistemology" (p. ix). From an educational perspective, constructivism stresses that learners have a different function than what has been associated with traditional objective learning, where technology, if it did exist, was no more than a conveyor of information. In this new framework, the learner becomes a designer and constructor of their own knowledge "using technology as tools for analyzing the world, accessing information, interpreting and organizing their personal knowledge, [and] representing what they know to others" (Duffy & Jonassen, 1992, p. x). The only environment in which this could be possible is one based on constructivist principles. These principles are deeply rooted in cognitive and epistemological theories. Hence, in order to understand the practical implications of technology integration in a constructivist framework, an overview of epistemology as it pertains to this idea is necessary. The underlying reason for this is that "our epistemological views dictate our pedagogic views" (Hein, 1991).

13 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/technology-tool-creating-collaborative-learning/68118

Related Content

XML Warehousing and OLAP
Hadj Mahboubi (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 2109-2116).*
www.irma-international.org/chapter/xml-warehousing-olap/11111

Measuring the Interestingness of News Articles
Raymond K. Pon, Alfonso F. Cardenasand David J. Buttler (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 1194-1199).*
www.irma-international.org/chapter/measuring-interestingness-news-articles/10974

Frequent Sets Mining in Data Stream Environments
Xuan Hong Dang, Wee-Keong Ng, Kok-Leong Ongand Vincent Lee (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 901-906).*
www.irma-international.org/chapter/frequent-sets-mining-data-stream/10927

Mining the Internet for Concepts
Ramon F. Brenaand Ana Maguitman (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 1310-1315).*
www.irma-international.org/chapter/mining-internet-concepts/10991

Mining Repetitive Patterns in Multimedia Data
Junsong Yuan (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 1287-1291).*
www.irma-international.org/chapter/mining-repetitive-patterns-multimedia-data/10988