How Learning Technologies Should Be Used

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Abstract

Learning technologies enable the responsibility for learning, the "ownership" of learning, to transfer from the teacher to the student (Trybus 2014). This liberates the learning process from the constraints of its traditional models and aligns the benefit of learning with accountability for learning and places responsibility where it belongs. Technology enables an environment where the learner, as beneficiary and accountable party, is at the center of the picture freed from restrictions of time and distance with guidance and support provided in context. Furthermore, technology expands access to education and makes it possible for learning to occur closer in time to the point of need.

How Learning Technologies Should Be Used

When considering how learning technologies should be used, the issue is not which technology should be used under which conditions or whether technology should play a significant part in teaching and learning. It is also not a matter of deciding how a particular technology can best be applied. It is realizing the fundamental shift that places today's technology at the very core of the modern model for teaching and learning.

It is critical to use a very current lens when exploring the answer to the question, "how should learning technologies be used and why". Failing to adopt an up to date point of view leaves us with a perspective that is flawed in that the definition of technology has shifted out from under prior analysis which is, relatively speaking, only a few years old. The highest and best use of the technology is being transformed in rapid fashion by the breakneck pace of change in the underlying technology itself.

Proof of this can be found in works from 1998 describing the applicability of hypermedia as an educational technology (Dillon and Gabbard). The body of research surveyed by these authors dealt with primitive hypermedia delivered on early computers in defined computer lab settings where

the use of color, multimedia, frames, etc. was a rare thing to be found. Relatively recent articles begin to focus on how to best use technology while considering it axiomatic that technology is now a core component of teaching (Molga 2011). Even more current research into the online challenges facing higher education in the context of modern technology make the claim that if cost-efficient and well-designed online courses go head to head in competition with face to face lectures, online wins (Bonvillian and Singer 2013).

By focusing on truly modern technology and appreciating the breadth and significance of what is possible today, the effective use of technology can support three new dynamics of learning: the transition to a learner-centric model, improved access to education and learning, and moving the act of learning closer to the point of need.

First, technology enables a learner-centric approach that shifts responsibility and accountability for learning away from the teacher and onto the shoulders of the learner. This new responsibility comes with new freedom and enables a self-directed learning process to emerge. According to Alan November, learning technologies enable the responsibility for learning, the very "ownership" of learning, to transfer from the teacher to the student (Trybus 2014). This liberates the learning process from the constraints of a teacher-driven model and aligns the benefit of learning with accountability for learning and places responsibility where it belongs, on the learner.

Second, technology should be used to improve access to education and enable learning on a far grander scale than would ever be possible if the only model for teaching and learning was the low tech approach of the past involving nothing more than one teacher and a classroom of students. Technology has enabled learning to occur even when great distances separate a learner from an instructor or educational materials (Moloney & Oakley 2010). Technology-delivered education also frees the instructor from the limitations and constraints of class schedules and class sizes. This allows more learners to benefit from a fixed amount of instructional resources which can have a

crucial impact on efficiency in systems where teacher time limits access for learners. So technology can break the barriers of distance and time and have a profound effect on both teaching and learning (Bonvillian & Singer 2013).

Third, the role of technology in teaching and learning is to close the gap between the act of acquiring knowledge and the application, or actual use, of that new knowledge to perform a task or achieve an objective. The expression "just in time learning" can be contrasted with "just in case learning" where teaching was done at the time and place most convenient for the instructor. Closer proximity of learning and its application can have a major positive impact on the context for learning. For example, learning on demand can result in immediate application of the new knowledge which has been shown to improve assimilation and retention. This temporal shift impacts learner motivation and the perceived usefulness of available new knowledge which can have a substantial effect on learning (Trybus 2014). The motivated learner also has an awareness of the relevance of the information being sought which can provide linkages and context to create a deeper understanding.

By focusing on truly modern technology and appreciating the breadth and significance of what is possible today, the effective use of technology can support these three new dynamics of learning: the transition to a learner-centric model, improved access to education and learning, and moving the act of learning closer to the point of need.

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