

OLTD 509: Emergent Environments & Technologies

Reflection # 1

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OLTD Program Learning Outcome(s):

- Be familiar with common terms, definitions and elements related to emerging technologies.

Evidence to Support Outcome:

The evidence I have chosen to demonstrate competency with respect to the above-noted learning outcome is a Piktochart Infographic that I created to summarize some of my research during the emerging technologies quests. Although my reflections may be found in the blog links and pages noted above, I felt the Piktochart was a good way to represent and encompass some of this learning in one evidence piece.

Reflection to Support Evidence:

The emerging technologies quests were a group of quests within the 3D GameLab setup that I could have easily pursued for months on end. The huge variety of emerging technologies, and the potential uses and views of how these technologies should or shouldn't be integrated into learning environments, generated a great deal of lively, insightful, and thought-provoking discussion. Yet, despite my interest in many of the technologies, and given the time I had for this area, I chose to undertake quests to explore the following areas:

1. Games, gamification, and game-based learning
2. Digital badges
3. 3D technologies, including virtual and remote laboratories, and virtual field trips

I felt that the above three areas certainly met the definition of emerging technologies outlined by instructor Avi Luxenburg in our first Collaborate session for OLTD 509,

where Avi Luxenburg defined emerging technologies as “tools, innovations, concepts, and practices that are being introduced to an area of endeavor, are gaining early adopter interest, but are not yet in mainstream use” (OLTD 509 Course content).

Through the readings, research, viewing, and hands-on exploration of the emerging technologies (and as seen on the Piktochart), I feel I have met the above-noted learning outcome, and therefore feel familiar with common terms, definitions and elements relating to emerging technologies. I have examined pedagogy and theory associated with these technologies, and I have looked at the cognitive, motivational, social, and emotional (and the intra-personal and inter-personal) relationships encouraged or dissuaded by these technologies. Due to the range of technologies examined, it is difficult and would be inappropriate to generalize about the efficacy of these technologies, as this would depend on how implementation occurred, what supports for technical needs, software, training of staff, etc., are in place, and what the end goals are. It seems to me that from all of my readings, a case can often be made for and against emerging technologies, depending on the implementation and use. Therefore, I feel the readings on sustainable change and emerging pedagogies are perhaps more crucial to the successful implementation of emerging technologies.

Personal experience with games, gamification, game-based learning, badging, and to a limited extent 3D technologies, seems to concur with the main conclusions from my research and quests on emerging technologies:

1. In order to achieve positive learning outcomes, students need to feel a sense of ‘agency’. A sense of agency means that students feel they control their own destiny and that their choices matter. It is felt that games can impart agency, as they can give students the sense of being able to control their future. Students can make choices and therefore control the outcomes of these choices. Thus, learning should be student-centric, and there needs to be a shift of control from the traditional model of the teacher disseminating information, to the student being in control, asking questions, and seeking information, knowledge, and answers (and yes, asking more questions). The teacher needs to be an ‘activator’ of change, challenging the student to formulate goals, and then reformulate goals, to pursue questions, ideas, and interests.

2. Students need responsive, timely, regular, and meaningful feedback. Emerging technologies offer many ways in which this can occur. For example, immersive technologies can offer points, levels, rewards, etc., while automated activities within math games and the like can give adaptive feedback from which a student's path or pace may be altered or modified to build towards success. Badges, meanwhile, can offer students a mechanism to represent skills or levels achieved, while also acting as a motivator for some students and/or if used appropriately - badges need to be directly connected to skills and outcomes.
3. Emerging technologies need to be used with a level of 'simplicity' that allows students, staff, and others to easily navigate and understand the goals, tasks, quests, badging structures, etc. Just because tools can drive like a top-end racecar, doesn't mean they need to or should. After all, what good are technologies or systems if they are only suited to a small percentage of users?

Finally, if we want to achieve positive, sustainable change, I firmly believe that sound pedagogy needs to be embedded into the emerging technologies and systems we choose to use. Through a collaborative, thoughtful, planned, and well-reasoned approach to the use and implementation of emerging technologies, is hoped that systemic and truly 'disruptive' change can occur. We owe it to our students!