

CHOOSING TECHNOLOGIES TO FACILITATE EXPERIENTIAL, CREATIVE, AND COLLABORATIVE ONLINE LEARNING

Amy Zidulka
Royal Roads University
amy.zidulka@royalroads.ca

ABSTRACT

How can online instructors who are interested in engaging students in brainstorming activities, design thinking exercises, live casework, or other forms of creative collaboration do so, given the recognized limitations of standard learning management systems (LMS's), like Moodle, Blackboard, and D2L? Multiple free, online software options exist, but choosing between them can prove daunting. This paper compares the relative strengths and weaknesses of three virtual collaboration technologies—Linoit, Padlet, and Mural—and provides guidance to instructors who wish to foster experiential, creative, and collaborative learning in the online environment. It argues that, before selecting a technology, instructors must weigh functionality against ease of use, and analyze precisely what is needed for a given class.

INTRODUCTION

As institutes of higher education increasingly are being called upon to foster students' abilities to engage in creative, collaborative work (Munro, 2014; Munro & Watt, 2014; Oliveira & Moreira, 2010; Stockleben et al., 2017), online educators must figure out how to foster team-level creativity in the virtual environment. As pointed out by Stockleben et al. (2017), whereas “in physical rooms, we [as educators] are used to creating spaces and processes to support ideation and creation processes” (p. 576), educators are still grappling with what such spaces and processes might look like when teaching online.

This paper introduces three free technologies—Linoit, Padlet, and Mural—and weighs their pros and cons. In so doing, it draws on both the academic literature (Kvan, 2001; Lloyd, 2013; Munro, 2014; Munro & Watt, 2014; Oliveira & Moreira, 2010; Stockleben et al., 2017), and the presenter's seven years of teaching online courses on design thinking, creative problem solving, and innovation, which use live cases and ask students to generate solutions for a real-world client. In these classes, students work in teams and, over multiple weeks, navigate a non-linear creative process. The goal of this paper is to provide guidance to faculty members who wish to foster experiential, creative and collaborative learning in an online environment.

THE CHALLENGE

Promoting virtual creative collaboration can prove particularly challenging given that standard LMSs, like Moodle, D2L, and Blackboard, often prove inadequate in fostering the types of interactions that are conducive to creative teamwork (Oliveira & Moreira, 2010; Riggs & Linder, 2016; Stockleben, 2017). Indeed, in their study of ten institutions dedicated to promoting collaborative online teamwork, Stockleben et al. (2017) found that “learning management systems fail to support real creative collaboration” (p. 591) and that, consequently, “[they] were not used for complex online collaboration at all” (p. 589). Rather, educators used the LMS for more linear tasks while supplementing it with Web 2.0 resources, in order to create “mash-up environments comprised of cutting-edge web services” (p. 589).

Creating this “mash-up” requires that instructors choose from a plethora of online technologies and figure out how to use them, which for multiple reasons, can feel overwhelming and frustrating (Bower, 2016). For one, making a wrong choice can have severe and negative impacts on the student learning experience. Two, in choosing a technology, instructors risk choosing one that, later, is unexpectedly changed or discontinued by its developers (Bower, 2016). Finally, many online technologies lack strong technical support, which can leave instructors in a position, for which they are often not equipped, of providing this support to students (Riggs and Linder, 2016).

THE SOLUTION

This paper introduces Linoit, Padlet, and Mural, weighs each technology's functionality against its ease of use, and argues that instructors should not necessarily choose the technology that offers the richest learning environment, given that it also requires students to undergo a steeper learning curve. Rather, instructors should carefully consider what, precisely, they need from the online learning environment and choose the right technology for their needs.

From a theoretical perspective, this paper draws on the general literature, referenced above, on educational technology adoption for creative collaboration, as well as the more specific body of literature on studio education (Barry & Meisiek, 2015) and virtual studio design (Cadioux Boulden & Evans, 2017; Blevis, et al., 2008; Lloyd, 2013; Kvan, 2001; Shao, Daley, & Vaughan,

2007). The lens of “studio pedagogy,” which emphasizes “participant-led inquiry through hands-on, creative engagement aimed at producing atypical results” (Barry & Meisiek, 2015, p. 156), provides useful framing for understanding and promoting creative collaboration. The literature on studio and virtual studio education identifies, in specific terms, many of the challenges encountered by those educators seeking to design a virtual creative space—as well as potential solutions.

REFERENCES

- Barry, D., & Meisiek, S. (2015). Discovering the business studio. *Journal of Management Education*, 39(1), 153-175.
- Blevis, E., Lim, Y. K., Stolterman, E., & Makice, K. (2008). The iterative design of a virtual design studio. *Techtrends: A Journal of the Association for Educational Communications and Technology*, 52(1), 74-83
- Bower, M. (2016). Deriving a typology of Web 2.0 learning technologies. *British Journal of Educational Technology*, 47(4), 763-777.
- Cadicieux Boulden, D., & Evans, M. A. (2017). Teaching an Online Graduate Multimedia Design Course Using Studio-Based Pedagogy. *International Journal for Scholarship of Technology Enhanced Learning*, 1(2).
- Kvan, T. (2001). The pedagogy of virtual design studios. *Automation in construction*, 10(3), 345-353.
- Lloyd, P. (2013). Embedded creativity: teaching design thinking via distance education. *International Journal of Technology and Design Education*, 23(3), 749-765.
- Munro, D., & Watt, D. (2014). Skills for business innovation success: It’s people who innovation. Conference Board of Canada Working Paper. Retrieved from <http://www.conferenceboard.ca/cbi/research/skillsbusinnov.aspx>
- Munro, D. (2014). Skills and Higher Education in Canada: Towards Excellence and Equity. Canada 2020.ca. Retrieved from http://canada2020.ca/wp-content/uploads/2014/05/2014_Canada2020_Paper_Series_Education_FINAL.pdf
- Oliveira, L., & Moreira, F. (2010). Personal learning environments: Integration of Web 2.0 applications and content management systems. In *Proceedings of the 11th European Conference on Knowledge Management* (pp. 1171-1177). Academic Publishing Limited.
- Shao, Y. J., Daley, L., & Vaughan, L. (2007). Exploring Web 2.0 for virtual design studio teaching. *Australasian Society for Computers in Learning in Tertiary Education, Singapore*.
- Stockleben, B., Thayne, M., Jäminki, S., Haukijärvi, I., Mavengere, N. B., Demirbilek, M., & Ruohonen, M. (2017). Towards a framework for creative online collaboration: A research on challenges and context. *Education and Information Technologies*, 22(2), 575-597.