

5-2017

Educational Technology Leadership and Practice in Higher Education: The Emergence of Threshold Concepts

Adam Barger

Follow this and additional works at: <https://scholarworks.wm.edu/librariespubs>

 Part of the [Library and Information Science Commons](#), and the [Scholarship of Teaching and Learning Commons](#)

Educational Technology Leadership and Practice in Higher Education: The Emergence of Threshold Concepts

Adam Barger Monday, May 22, 2017 [Leadership and Professional Learning](#)

6 min read

Navigating the world of educational technology in higher education environments is an increasingly rewarding, yet challenging, endeavor. What must leaders know in order to thrive in the ever-changing space of educational technology? How can leaders and practitioners alike excel in cultivating and utilizing powerful educational technology applications, tools, and resources? In this blog, I explore these questions through the lens of threshold concepts as applied to technology in higher education teaching and learning. I propose three threshold concepts in our field, discuss their prevalence at the 2017 ELI Annual Meeting, and suggest their implications for leadership and practice.

Threshold Concepts

Meyer and Land described threshold concepts as ideas or ways of thinking that transform the internal view of a subject.¹ They are conceptual gateways to new, and sometimes troublesome or difficult to parse, understandings. Furthermore, threshold concepts are often transformative, irreversible, and integrative in that they expose crucial connections within a subject.² In my research and practice in technology in higher education teaching and learning, three such concepts have emerged in recent years:

1. Higher education is no longer about access to information; rather, it is about access to experiences.
2. Use of educational technology in most higher education settings is standard practice rather than the exception.
3. Educational technology both follows and fuels effective pedagogy.

Higher education generally, and educational technology specifically, exhibit these threshold concepts and reflect the paradigmatic shifts that define our field and shape its future.

I view these threshold concepts as shaping the new paradigms of our field. These concepts outline key factors in higher education technology while presenting practitioners with the inherent challenges in working in a space that is both exciting and troublesome. These challenges, present in my own institutional context, seem to be in various stages of flux as colleges and universities adapt to meet the demands and expectations of education in the digital age. My recent attendance at the **2017 EDUCAUSE Learning Initiative Annual Meeting** (ELI 2017) confirmed the necessity to adapt to such changes while providing me with valuable perspectives — through interacting with peers and colleagues from many institutions — to manage the disruptive nature of research and practice in educational technology. What follows is a reflection on that experience as situated within the three threshold concepts.

1. Higher Education Is About Access to Experiences

One of my goals at ELI 2017 was to better understand the landscape of adaptive and personalized learning across different types of institutions. I am pleased to report that this was a common endeavor among conference participants. The educational technology tools and resources available to

educators are trending toward highly interactive and feedback-rich learning experiences. As evidenced by the many adaptive learning vendors in attendance, coupled with sessions on academic transformation for more personalized learning, I was heartened to observe that higher education is embracing the shift to experience over information. Moreover, I feel equipped to encounter this change through learning about and reflecting on the experiences of colleagues from other institutions.

As higher education institutions encounter opportunities to enrich the personalized learning experience of students, leaders in educational technology should be willing to explore adaptive learning platforms and resources. Adaptive learning experiences are becoming more attainable for institutions of all sizes, thanks to the rise of companies offering scaled services in learning design and the trend toward web-based interfaces. Similarly, individual faculty members can leverage these tools for hybrid courses or instructional modules in face-to-face courses. The potential to enhance learning experience across instructional formats is a major strength of current adaptive approaches, and one that EDUCAUSE continues to **track**.

2. Use of Educational Technology in Higher Education Is Standard Practice

We often conceptualize technology use in education as an emerging practice, yet expectations of technology use have already fully emerged. The ubiquity of learning management systems, classroom multimedia, Internet access, and personal devices points to a teaching and learning context that is ripe for thinking beyond traditional pedagogy as a matter of course. ELI 2017 reflected this concept in many ways as researchers and practitioners alike considered more organic and customizable approaches to teaching with technology. The **next generation digital learning environment** (NGDLE) is quickly becoming part of our lexicon as we consider how best to unify the many technology tools and resources on our campuses into a cohesive whole. My conversations throughout the conference were primarily centered on equipping learners rather than managing a learning system.

Embracing the possibility of multiple learning pathways in a single institution is complemented by the current capacity for educational technology customization. I benefitted from the ELI 2017 presentations and resources from colleges and universities across the country that offered

unique perspectives and solutions to creating learning environments that truly account for learner variability. From **digital badging** and microcredentials to **communities of practice** and e-learning leadership trends, the ELI 2017 agenda showed that technology use in higher education is becoming more comprehensive and more specific, more robust and more personalized. In essence, the saturation of technology use in higher education allows for more individualized approaches to educating all students.

3. Technology both Follows and Fuels Effective Pedagogy

This final threshold concept is the most exciting for our field as we work toward deeper learning and more beyond-classroom connections for students. Educational technology integration has a rich history of emphasizing sound teaching and learning practices that may be supported, but not led, by technology. A pedagogy-first approach to technology integration was apparent at ELI 2017, but a parallel approach that centered on experimentation and play was just as notable. New and emerging technology tools and resources create opportunities to think differently and experiment. As I experienced smaller and more efficient 3D printers, **user-friendly virtual reality hardware**, and customized learning applications, my assumptions of what is possible in the classroom began to change. Why not start with the technology and see where it takes us? Why not play, experiment, and ideate with a technology tool as the launching pad? Within the **ELI community** and others like it, such a position can be an enriching yet challenging venture.

Though our focus as educational technology leaders and practitioners is always on learning, experimentation and play allow us to address the potentials and pitfalls of emerging tools and resources. As a threshold concept, this position rightfully evokes troublesome thoughts and dialogue due to the potential for the technology rudder to steer the pedagogical boat. Tackling this concept is an essential aspect of innovation and learning in the field of educational technology. I contend the focus on technology as a fuel for effective pedagogy is just one part of an exciting whole. By embracing this concept, we continue to refine what is possible, what is likely, and what is practical.

Implications for Leadership

ELI 2017 focused on the power of interinstitutional relationships and collegial cohorts to bring change to the academy. Leaders in educational technology contribute to the vibrancy of our field by helping others understand and unpack the threshold concepts of technology in 21st-century higher education. Through leveraging such relationships and learning from what works, and what does not, we better navigate the landscape of technology in higher education. To thrive and excel in our field, we should chart a way forward that recognizes these concepts. Following are just three potential applications for leadership that use the threshold concepts as starting points.

1. Capitalize on Experience

What are the experiential goals of your institution? How does your office or role support and strengthen that experience? Rather than approaching educational technology leadership through the lens of support, look for complementary collaborations at your institution that encourage the **embeddedness** of technology resources and programming.

2. Model Effective Practice

Providing a resource, pointing the way, or cataloging possible tools is not enough to best utilize educational technology resources. Leaders and practitioners should model the successful use of in-house technologies as a pathway to a more complete and consistent application of educational technology. No single tool or collection of resources is perfect, but appropriately using the resources we have is crucial for teaching and learning success. Let's do well with what we have rather than wishing for what we could have or do.

3. Encourage Play

Is there a space or opportunity for dialogue surrounding experimentation at your institution? **Makerspaces**, hacks, and coding events are just a few examples where such conversations thrive. Look for opportunities to grow these types of events and draw in more participants. In so doing, you can

further the conversation and engender a new level of collaboration among stakeholders.

Conclusion

The field of technology in higher education is operating under new paradigms of research and practice as evidenced by the emergence of threshold concepts that help us see the trajectory of teaching and learning in the digital age. I look forward to exploring these concepts as one of many professionals in a rich field of enthusiastic leaders and practitioners. As experiences such as my own at ELI 2017 continue to support professional development and collaboration, I believe we are collectively heading for an increasingly transformational higher education experience.

Notes

1. Jan Meyer and Ray Land, *Threshold Concepts and Troublesome Knowledge: Linkages to Ways of Thinking and Practising within the Disciplines*[☞], occasional report 4 (Edinburgh, Scotland: ETL Project, Universities of Edinburgh, Coventry and Durham, May 2003).
2. Jan H.F. Meyer and Ray Land, "Threshold Concepts and Troublesome Knowledge (2): Epistemological Considerations and a Conceptual Framework for Teaching and Learning[☞]," *Higher Education* 49, no. 3 (April 2005): 373–388.

Adam P. Barger is an e-learning specialist and program manager at the College of William & Mary.

© 2017 Adam P. Barger. This *EDUCAUSE Review* blog is licensed under [Creative Commons BY-ND 4.0](#)[☞].