Foreword

Online education is of interest to those of us who are involved in creating alternative learning spaces inside and outside institutional settings because it holds the potential to open new avenues of knowledge and opportunity not currently available or within reach of certain populations, especially in poorer areas in the United States or across the globe. Creating Teacher Immediacy in Online Learning Environments is especially relevant for educators, researchers, instructional designers and learners who are interested in the development of effective, interactive and interpersonal asynchronous online learning environments. The chapters within provide research on new models of student engagement and insights on how to harness the full potential of social media and interactive tools to enable a richer, more personally satisfying experience for students and better learning outcomes.

Typically in distance learning environments interactions are often limited to text-based asynchronous discussion boards. Asynchronous discussions provide opportunities for instructors to survey student understanding and identify areas that require additional attention. A type of formative assessment, instructors can use student comments to gauge student learning as it is occurring. A consideration of questioning techniques is essential as online instructors set the direction of the discussion through anticipatory questions or prompts. Questions enable instructors to assess (1) student engagement – how involved students are with the learning activities and content, (2) student motivation – the level of student self-inducement to achieve their goals, (3) student preparation – the degree to which students are remaining current with the progression through the course content, (4) student thinking – an identification of the cognitive strategies students are employing, (5) student understanding – the degree to which students are acquiring knowledge of the content and meeting learning objectives and (6) student creativity – the degree to which students are integrating new learning into pre-existing knowledge to generate new ideas. While discussion boards have advantages – allowing student reflection before posting ideas, empowering students who have a more text-based approach to learning and communicating – asynchronous discussion have a number of failings. Unless designed and moderated effectively, they can be static and unfocussed. Often instructors use discussion boards as a kind of homework assignment, and prompts can take the form of direct information-based questioning. Discussion, in this scenario, becomes questioning and rather than collaboratively making meaning, students simply post their best guess at the “right answer.” Created in this form as a kind of assessment strategy, student participation becomes motivated primarily by externally imposed criteria in the form of grading by the instructor and can devolve into a way of checking if students have done the reading. Instructor presence in online discussions can also be problematic as students inevitably defer to their comments and instructor assent and validation can become the prime mover. These failures can obviously plague video and/or based discussion tools as well which, while more effective at mimicking synchronous interactions, can also fail to empower students.
to dig more deeply into difficult questions that move beyond providing answers to content-based questions. The point here is that instructor immediacy is not tool-dependent. Rather, immediacy requires a purposeful design process that focuses on how students can collaboratively create shared meanings in intellectually and academically rigorous ways.

Thousands of free courses are offered online by universities, including MIT, Harvard, Stanford and Columbia University. Over 10 million users a month access Kahn Academy’s content, whose mantra is clearly stated on the home page of the Web site, “You can learn anything. For free. For everyone. Forever.” New technologies, such as whiteboard screencasting and hand drawing software, allow people to create and share information in ways never before possible; however, today modern e-learning pedagogy is not dissimilar to that experienced by University of Illinois students in the 1960s when classroom computer terminals were linked to resources supporting piped-in lectures by their professors or to the 1950s and 1960s skill and drill system of the Programmed Logic for Automatic Teaching Operations (PLATO). When one considers that e-learning evolved from the earliest communications technologies, radio in the 1920s, then television in the 1930s and by government institutions that are often slow to change, it is not so surprising that many of the popular platforms’ features, functionality and delivery mechanisms are stalled in 1.0.

Khan Academy has been criticized for its “sit and get” instructional strategy, for its focus on decontextualized procedural knowledge and its emphasis on foundational rather than conceptual learning (Kerr, 2015). Others warn that there are close connections between behaviorism and adaptive learning systems, such as Knewton, and the teaching machines of B.F. Skinner (Watters, 2015). While these solutions may provide students with baseline knowledge that can serve to inform or remediate, as with all prototypes that have gone through the testing phase with bugs identified, perhaps it’s time for a radical shift beyond online education broadcast networks and from response and awards-based learning mechanisms to action-centric spaces for collaboration, creation and innovation. In the Vygotskian view, social interaction plays a fundamental role in the cognitive development of learning. The Internet, not Facebook, is the social network. The amount of casually generated information online is staggering and growing. Every minute of the day, YouTube users upload more than 72 hours of new video, Facebook users share 2,460,000 pieces of data and Pintrest users pin 3,472 images. The tracks of social interaction and learning have been laid and oncoming are the tools that have the potential to close the gap between classes of people who have had varying classroom experiences from K-12 to community college to university and beyond.

What could these new action-centric spaces for collaboration, creation and innovation look like? In the Bronx, NY students in public schools learned how to use CAD software through two different collaborative experiences. In the first, teenagers addressed how they could motivate their peers to exercise more through the invention of a foot-peddled scooter that charges handheld devices. They researched ideas for their invention online, accessed tutorials to learn how to use CAD software to design and prototype the invention and worked on the tutorials individually and collaboratively, asking each other questions when they hit snags. Their tutorials were supplemented with twice-weekly direct online interaction with an expert instructor who answered their specific questions about the functionality of the software and the application of it to their design. While observing the teens use the software to build models of their invention in real time, the instructor was also able to suggest useful modifications as well as contributed to the overall design of the mechanism. Over three months, the teenagers became expert users of the software and also produced two prototypes of their invention that were featured on YouTube and other online publications that were seen by their teachers and peers. The recognition that the teenagers received
elevated not only their self-perceptions of worthiness through their contributions to society, but also that of their schools administrators and staff who felt connected to the teens’ success. In a second collaboration, teenagers who already had familiarity with CAD, 3D animation and coding were given the task to design a game that would teach other teens how to use CAD software. The teens had a deadline of four weeks to design and deliver a demonstration game that included a compelling story line with motivation to learn CAD and the task to learn how to build mechanisms using CAD software. The teens formed a team that they named JAVAK, a letter for each first letter of their names. Each day the team worked together onsite or in a combination of onsite and virtually to design, develop the assets and program the game. They also blogged a record of their development progress, which provides highly informative insights into how the incentive of designing their own product for their peers drove them to learn more and more skills across new software tools that would help them to complete the final deliverable. The final product is not only a testament to what young people can learn with available tools of technology, but also to the form they envision that learning can take online.

As you read the chapters of this book, ask yourself, how can you use the information within to build your own action-centric spaces. Also, ask yourself about the spaces and eLearning experiences that the authors describe. Are they designed to be highly interactive, collaborative and adaptive to students’ needs through the real-time engagement of the instructor? Do they blend both offline and online experiences and content that supports the use of tools of creation? What benefits are the students receiving? Are they learning new knowledge and being encouraged to synthesize what they learn? Do students have choice through an environment that offers online tutorials, collaborative on and offline experiences with their instructor and peers, opportunities to virtually construct mechanisms, then print out files and reconstruct them offline? Today’s technology offers amazing opportunities to leapfrog existing classroom practices and create exciting spaces for all young people to thrive and create their own futures today. Where will you take it?

Creating Teacher Immediacy in Online Learning Environments offers insights into instructor presence through a number of lenses. Some authors focus on effective tools to create, develop and sustain immediacy, others examine and recommend effective practices. Several authors offer global perspectives, broadening the conversation in interesting and innovative ways. Essentially, the collections reminds us that the human component of teaching and learning remains paramount regardless of the instructional setting.

Karen P. Kaun
Makeosity, Inc., USA

Karen P. Kaun is an e-learning innovator, entrepreneur and leading figure in the maker movement whose work in the public and private sector and schools domestically and internationally has been featured in the media for its innovation including the book Design, Make, Play, Growing the Next Generation of STEM Innovators (2013). Dr. Kaun’s programs support K-8 educators to integrate new technologies (e.g. 3D design, robotics) with their classroom curriculum and teaching practices. Her newest initiative is the launch of Makeosity, an on and offline community that immerses students in science, technology, engineering, art and math (STEAM) through making and invention. Makeosity (www.makeosity.com) is a space for youth to incubate and create new ideas such as its patent pending “Energy Scooter” designed by middle school girls with Autodesk Fusion 360 software and partially 3D printed. The scooter has been showcased across the globe including in Seoul, Korea where Dr. Kaun was a keynote speaker at Autodesk University Korea on the future of manufacturing.
REFERENCES
