Preparing to Teach Architecture Online: The Hurdle of the Design Studio

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"Technology is transforming the practice of architecture and design from the conceptual stages right down to the actual construction" (Bender 2005). Recent technological developments in educational delivery have the ability to transform and redefine teaching in the discipline of architecture. To be able to offer a complete Architecture course online, the unique requirements of the practical design studio must be addressed and supported in the online environment. This poster sets out to illustrate what these features are and the process by which an Australian university has maintained the pedagogical requirements of the learning space.

Keywords: architecture, virtual design studio, design studio pedagogy

Introduction

The opportunity to deliver the Bachelor of Architecture and Master of Architecture as online programs was presented to the School of Built Environment and the Department of Architecture in 2011. The delivery scenario of the practical design studios – an integral, long term component of architectural learning, is a collaborative, creative and tangible space. The pedagogy of this practice was seen as one that could not be replicated, replaced or improved upon in an online learning environment. This poster explores the history of the architectural design studio, the pedagogy underpinning this approach and how we intend to translate a face-to-face design studio to the online environment.

The History of the Virtual Design Studio

The Virtual Design Studio (VDS) refers to a networked studio computer mediated and supported, distributed across space and time to participants in different locations (Broadfoot and Bennett 2003, 4). Virtual design studios, used since the mid-1990s, have influenced not only the role of the educators but also pedagogical models and outlooks (Shao, Daley and Vaughn 2007, 919). However it is important the pedagogical features and learning outcomes that are critical to successful learning in a face-to-face studio are replicated in the online design studio. The virtual design studio is by no means a new way to conduct design studios; they have been set up and used in several ways including asynchronous and synchronous delivery, and using various tools and e-technologies.

The Pedagogy of the Virtual Design Studio

The same fundamental questions asked of traditional design studio pedagogy need to be asked in the virtual design studio environment with the additional consideration of the possibility of a more radical, innovative and dynamic pedagogy being identified and delivered (Reffat 2007). Although there is a change in communication *methods* in an online environment, the learning tasks, outcomes and environment are the same, as is the importance placed on the communication between student and teacher. Both Schön (1987) and Kvan (2001) uphold that *one-on-one* communication is essential for exposure to the *tacit* knowledge inherent in designing. The VDS must be a highly interactive, collaborative learning environment allowing students to digitally display their work, including sketches and physical models, for critique from staff, industry professionals and fellow students.

Translation of design studio to the online environment

The infusion of digital media into practice of design and architecture is changing how the design process is carried out, what is designed (ie: artefacts), and the culture of design education (Reffat 2007). Students will set up a social network page using Ning and then join a 'special interest group' or 'community' for their unit. Ning was chosen not as 'another social network', rather to provide a tool that harnesses the engaging power of social networking for interaction and communication. Using Google SketchUp students will sketch their designs in 3D and then geo-reference them in Google Earth. The students will then create a physical model and produce a 5-10min video of the model and upload their sketch, link to Google Earth and the video of their model to their

Ning page. Alternatively the video can be uploaded to YouTube and embedded directly to Ning. Critique and online feedback by tutors, peers and industry professionals will take place through Ning.

What next?

The online architecture course will be delivered in study period 1, 2013. We will then conduct a full review of how the course was delivered, taking into account feedback from students, staff and industry professionals and make any enhancements if necessary.

References

Bender, D. (2005). Developing a collaborative multidisciplinary online design course. *The Journal of Educators Online,* 2(2), 1-12. https://doi.org/10.9743/JEO.2005.2.5

Broadfoot, O. & Bennett, R. (2003). Design studios: online? Comparing traditional face-to-face Design studio education with modern internet-based design studios. College of Fine Arts (COFA). The University of New South Wales. Sydney. URL: http://omnium.net.au/assets/downloads/papers/2003_auc_designstudios.pdf

Kvan, T . (2001). The pedagogy of virtual design studios. *Automation in Construction,* 10(3), 345-353.

Reffat, R. (2007). Revitalising architectural design studio teaching using ICT: Reflections on practical implementations. *International Journal of Education and Development using information and communication technology.3(1),* 39-53.

Schön, D. (1987). *Educating the reflective practitioner: toward a new design for teaching and learning in the professions.* San Francisco: Jossey-Bass.

Shao, Y.& Daley, L. & Vaughan. L. (2007). Exploring Web 2.0 for virtual design studio teaching. In *ICT: Providing choices for learners and learning. Proceedings ascilite Singapore 2007*. URL: http://www.ascilite.org.au/conferences/perth07/procs/shao.pdf

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