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Online Architecture Education and the Australian context

Introduction

Architecture is one of the fields of education that has until now retained a strong face-to-face learning culture, particularly associated with design based coursework in studio environments. However, as online learning has become ubiquitous – and as student expectations of their engagement with universities changes – this has inevitably come under challenge. Different universities will engage with this challenge in different ways. Some will double down on the commitment to teaching ‘studio culture’ and will enhance it with ‘making culture’, e.g. with access to computer-aided fabrication technologies. The majority of universities, however, are likely to move towards more flexible learning methods, and indeed many are already moving away in a variety of ways from the sole model of dedicated studio space substantial face-to-face tutorial time on design projects.

Curtin University in WA has a long established face-to-face architecture program that has been through a number of accreditation cycles. Beginning in 2014, it commenced offering an online Bachelor of Applied Science (Architectural Science) and Master of Architecture program through Open Universities Australia (OUA). This is Australia’s first online architecture program, although in the United States there are several. The first graduates of the full five year Curtin University OUA program completed their Master of Architecture degrees in 2018 and an Accreditation Review Panel was conducted in Semester 2 of 2018. As a result of the recommendations of the Accreditation Review Panel, the Architects Board of Western Australia approved the accreditation of the online qualification for five years (the current default period of accreditation).

This paper provides some background to online university education – particularly as it applies to professionally accredited disciplines such as architecture – that may assist in placing the accreditation process in the context of developing norms of teaching and learning in higher education internationally.

Background

Online education is not new. The first online education platform, PLATO, was developed in the 1960s by the University of Illinois. PLATO pre-dates the modern Internet and was widely used until the 1990s as a supplement to traditional teaching. PLATO introduced many of the concepts – such as chat rooms and online lectures – that remain central to online learning today.

Interest in online learning grew strongly with the widespread take-up of personal computers and the growth of the internet from the late-1980s. The first fully online program (although not in architecture) was offered in California in 1994 and the world's most widely used online education platform, Blackboard, was released in 1997. A very wide range of degrees are now available online with over 90% of universities having some online offerings.

In Australia, OUA has been the most prominent exponent of online learning. OUA was founded in 1993 (initially for distance education) and is a consortium of twelve Australian universities including the Australian National University, Curtin University, Macquarie University, the University of South Australia and Griffith University. Curtin University offers numerous online degrees through OUA (utilising the Blackboard learning platform) including Arts, Commerce, Education and Fine Arts degrees. The online Bachelor of Applied Science degree is available in Construction Management and Interior Architecture streams as well as Architecture.

Until relatively recently, university fully online offerings were focussed on programs that could readily be "commodified" into an online learning package, e.g. business, information technology, liberal arts, allied health and education. Professional education, with its strong focus on small group practicum learning (such as the Design Studio in architecture) largely remained an on-campus offering. Nonetheless, across the range of subject/units offered in architecture programs, on-line supplementation of face to face learning, and in some cases fully online units, have become reasonably common. The slow shift towards online learning in professional education was as much an economic as a philosophical decision by universities, as there were considerable challenges in moving professional programs online in a credible fashion, while there was ready growth to be had from the more straightforward online offerings. As this growth has plateaued, however, and as online learning platforms (and attitudes to online learning) have matured, professionally accredited online degrees have increasingly come into play.

Currently, the RMIT University and Deakin University offer accredited Juris Doctor programs for admission to legal practice, while numerous universities offer CPA-accredited online accounting degrees. Engineering Australia (EA) accredited fully online engineering degrees are offered by Deakin, Griffith, Charles Darwin University and the University of Southern Queensland. Several universities offer Australian Institute of Building (AIB) accredited online Bachelor of Construction Management degrees, while Central Queensland University offers a Bachelor of Building Design (online only) which is accredited for the purposes of building designer licensing. Western Sydney University and the University of Southern Queensland offer accredited online nursing degrees (excluding clinical units), and blended delivery nursing is offered by a number of other universities. There are no accredited online pharmacy, dentistry or medicine degrees in Australia at this time.

Until the accreditation in late 2018 of Curtin Universities' Master of Architecture program through OUA, there had been no accredited fully online architecture programs in the English-speaking world outside of the United States (which has traditionally been the pioneer in e-learning). Accredited online architecture programs are currently offered in the United States by Boston Architectural College, Southern Illinois University, the Academy of Art University and Lawrence Technological University. Only the Academy of Art University program is 100% online: the others require a small number of studio intensive classes. The National Architectural Accrediting Board (NAAB) in the United States has confirmed in correspondence to the Architects Accreditation Council of Australia (AACA) in 2018 that there are no special guidelines or standards for online

architectural education, i.e. online architecture courses must meet the same rigorous standard as all other accredited architecture courses. Nonetheless, the universities offering online studies are not generally considered in the top rank of the 150 American architecture schools.

Discussion of issues

University teaching and learning has been experiencing enormous changes. Online education was initially seen as an adjunct to face-to-face education, an outreach activity that could bring the university to new cohorts of students, much as distance education by correspondence had done before it. In the last decade, however, the traditional campus culture has been turned on its head. It is now common for main-line university courses to be “flipped” so the lectures are delivered online and class time is freed up for discussion and group work. Course materials are predominantly provided online, as are enrolments and other student services. Most students are “digital natives”, and are also more likely than ever to be juggling study with work and other responsibilities, so they expect increased accessibility and flexibility from their education provider.

It is therefore appropriate to talk of a continuum between face-to-face and online study, with all programs moving somewhere along that continuum. Nonetheless, Curtin is clearly ahead of most universities in Australia (and elsewhere in the English speaking world) in offering a fully online architecture program. Curtin states that their OUA Master of Architecture offers “two years of advanced studies in design project work, architectural history, theory and research, management, law and professional practice”¹. At the time of accreditation in 2018, there were 14 compulsory units, which were broadly the same as the face-to-face program, and comparable to other accredited programs. Admission requires completion of the Bachelor of Applied Science (Architectural Science) or an equivalent qualification, noting that entry to the degree is competitive and a high semester weighted average is required.

At the end of the day, professional accreditation systems are about outcomes. The accreditation of architecture programs in Australia is seeking to assess whether programs are designed to enable graduates to achieve the required competencies to continue on the pathway to registration. The current Architecture Program Accreditation Procedure reinforces this principle with its clear alignment of the Accreditation Standard to the National Standard of Competency for Architects (NSCA). This alignment takes the form of 37 Performance Criteria (and their associated Knowledge Domains) that must be attained by Master of Architecture graduates at one of the Knowledge, Skills or Application of Knowledge and Skills competency levels.

The delivery mode itself is therefore arguably not the key issue. If there are inadequacies in the online delivery mode, then these should show up in the assessment tasks and/or the completed assessment materials presented to an Accreditation Review Panel as part of an accreditation assessment. Moreover, if the academic and systems support to online learning is insufficient, this should be uncovered by the tertiary education regulator, the Tertiary Education and Quality Standards Agency (TEQSA), as part of the ongoing quality assurance processes of all universities. If the Accreditation Review Panel finds that the assessments ‘check out’ (at the threshold level) then the accrediting body – ultimately the state or territory Architects Registration Board – should

¹ Curtin University OUA Master of Architecture Degree Guide, 2018

surely be satisfied. The argument that students get a deeper learning experience from extensive face-to-face studio time can still go on. Students (and employers) can make their choices based on the perceived merit of different university offerings. But as long as the competencies are demonstrated at the threshold level, then it could be asserted that this discussion does not need to concern the accreditation system.

Virtual Design Studio

A lot of the discussion of online architectural education comes down to the teaching, learning and assessment of the Design Studio units which typically make up 30-40% of an Australian university architecture program. Australian educator Nikki Wragg has written in designonline.org.au that:

The idea and culture of ‘the studio’ underpins most design education and practice. It is a concept and context for working in design that is informal, motivating and supportive. A studio is an open environment where individual or groups do visually-centred work. In design education, the studio has been a space that allows students to engage with and inspire each other beyond the parameters of formal classes; novice designers develop a designerly attitude and knowledge by hanging out with each other. Since the early 1990s, such a studio experience—where students had a dedicated space to work in—has been disappearing as a result of significantly reduced contact hours, larger student cohorts and teaching spaces scheduled around back-to-back classes.

However, she goes on to say that an online studio can be a viable alternative, as students (at least the younger ones!) are very comfortable learning and communicating in online spaces, and are able to generate the culture of collegiality online that an older generation might only be able to experience in a face-to-face interaction. How the students themselves perceive their architectural training and the acculturation of students into the profession are therefore important questions to be investigated, rather than simply making assumptions about their experience. This is one of the issues to be teased out in the AACA-managed study into Architectural Education in Australia that commenced in July 2018, with the final report due to be published in late 2019.

Donald Schön’s description of the design studio as “individual and collective learning by doing under the guidance and criticism of master practitioners” is relevant here.² The key elements are practical learning and interactivity (both among students and with experienced practitioners) rather than a physical space. There is some suggestion that the traditional physical studio space is in any case starting to disappear even from face-to-face architecture programs. There is also a more or less explicit objective of acculturation to design thinking and the ways of working of a professional architectural studio. If the online technology is clunky, the teachers inexperienced and the students disengaged then this is likely to be difficult to achieve through an online learning platform. Conversely, if the program is properly resourced and the students and teachers switched on, the experience may be a far better one. .

If you accept that it’s possible to teach design units online, the key question is therefore whether the online studio environment (sometimes called Virtual Design Studio or VDS) is being delivered well. It should be noted that the VDS has been around since the 1990s. The first Australian VDS – a collaboration between the University of Sydney, University of Queensland and University of

² Donald Schön, *The Design Studio*, RIBA Publications, 1985.

Tasmania to design an exhibition building for the Sydney Olympics – was run in 1995. Thomas Kvan from Hong Kong University has subsequently written extensively about the online studio method, which he claims can facilitate reflective learning and group collaboration in ways that may actually be superior to the traditional studio.³

In terms of assessing the effectiveness of a VDS offering, one question is whether the program is making use of contemporary developments in online interactivity (e.g. virtual reality tools) which may enable more studio-like spaces, rather than the traditional Blackboard-style environment which as the name suggests developed in the context of more ‘chalk and talk’ style learning. Another is whether the teachers are adequately trained and supported, and whether sufficient staff resources are allocated, to enable a high quality online experience for students. Once again, if there is little depth in the VDS experience, consideration of evidence provided in assessment tasks against the clearly articulated design competencies of the National Standard of Competency for Architects should show this up fairly readily. There is no requirement to inquire in great detail about staff allocations etc., which is now generally seen as beyond the scope of professional accreditation.

Conclusion

The Architecture Program Accreditation Procedure is essentially technology neutral. Unlike some accreditation systems it does not specify particular facilities, teaching modes or curricula that are to be provided as a part of architectural education. In the Australian context there is an inherent assumption that these important factors are assessed through TEQSA compliance. The Accreditation Procedure instead focusses on graduate competencies from the NSCA as evidenced through university assessment tasks. The successful accreditation of a fully online program should perhaps be welcomed as a good test of this approach.

³ Thomas Kvan, *The Pedagogy of Virtual Design Studios*, *Automation in Construction*, 10:3 (2001), pp. 345-353.