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VIRTUAL ONLINE TEACHING IN TRANSPORT LAW

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The virtual classroom is a new and modern structure in university teaching around the world. It can provide tuition to students in advantageous ways. The virtual classroom, with its numerous functionalities, provides a level of student class participation that is unprecedented in face-to-face classes. It also appeals to students, as it saves them time and money with public transport and/or parking. A much-improved classroom attendance record as compared to face-to-face classes has also been noticed. The students' levels of understanding of the subject matter has also been noticeably improved by mechanisms available in virtual classroom teaching. As technology improves, the virtual classroom is likely to increasingly popular for convenience, flexibility and study efficacy. This paper explores the use of virtual classrooms in law education.

I INTRODUCTION

The word 'pedagogy' is derived from Greek literally meaning 'leading the child'. Applying this to law school teaching, it would follow that teachers would need to 'lead students' in their legal training and to get them 'practice ready'. Law firms are now expecting law schools to teach their students 'how to be lawyers, not just how to think like lawyers'.¹ To do this, law schools are placing more emphasis on the development of practical skills by engaging in instructional materials through the Internet.

The main 'format' for law teaching for over a century has been the traditional face-to-face classes.² Studies have recently shown that traditional 'passive lecturing' is ineffective because it simply involves information being given to students without giving them an opportunity to think about or understand the content, but only to simply 'memorise'.³ Thus, traditional face-to-face lectures adopt a 'one-size-fits-all' approach when it comes to students understanding class materials. That is, traditional lectures, which focus on the 'sage on the stage', 'teach to the middle' and ignore the strongest and weakest students in the class. This is because most students are average, so teachers prepare classes to cater for average students. Thus, the strongest students become 'bored rather than engaged', whilst the weakest students eventually 'stop listening' because the teacher is not being understood by them.⁴

However, in the virtual classroom with recording functions and numerous activities attached to the instructional design and technological capabilities of the subject, students can, for example, simply rewind and review the discussions over and over again until the contents have been fully understood or communicate with one another in collaborative learning as the need arises. Thus, Slomanson notes that by moving 'basic content instruction online', this allows the students to view materials again and again until they have fully comprehended the class discussion. He notes that his students can now 'digest the essential concepts at their own speed ... they can pause and rewind the professor'.⁵

In this way, students would be doing more than just 'passive listening'. They would also be developing their 'legal skills' and be involved in 'active learning' in which they do meaningful things and think about their activities.⁶ In this way, by moving the classroom onto the Internet, students are put 'in control' of their

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¹ Alex Berrio Matamoros, 'Answering the Call: Flipping the Classroom to Prepare Practice-Ready Attorneys' (2015) 43 *Capital University Law Review* 113, 114, citing R Michael Cassidy, 'Beyond Practical Skills: Nine Steps for Improving Legal Education Now' (2012) 53 *Boston College Law Review* 1515, 1615-17.

² Gerald F Hess, 'Blended Courses in Law School: The Best of Online and Face-to-Face Learning?' (2013) 45 *McGeorge Law Review* 51, 52, citing Catherine Dunham and Steven I Friedland, 'Portable Learning for the 21st Century Law School: Designing a New Pedagogy for the Modern Global Context' (2009) 26 *John Marshall Journal of Computer and Information Law* 371, 371-4.

³ Matamoros, above n 1, 133, citing Edgar Dale, *Audio-Visual Methods in Teaching* (Holt, Rinehart and Winston, 3rd ed, 1969) 108.

⁴ Matamoros, above n 1, 143.

⁵ William Slomanson, 'Blended Learning: A Flipped Classroom Experiment' (2014) 64(1) *Journal of Legal Education* 93, 97.

⁶ Matamoros, above n 1, 138.

learning and understanding and thereby accommodate the 'educational needs' of all students.⁷ Active learning experiences, in this way, will enhance the legal skills development of all students. In a meta-analysis conducted by Means et al in 2013, Ryan et al note that the 'overall finding ... was that online learning ... leads to better student learning outcomes, on average, than learning ... through face-to-face instruction alone'.⁸

Consequently, because of the points expressed above, rapid advances in technology are impacting on teaching practices at all universities. Traditional classrooms and distance education are converging. In addition, society is becoming increasingly dependent on technology and therefore 'pressures' are being placed on education by 'policymakers and other stakeholders to embed e-technology into higher education courses'.⁹ While the traditional classroom is face-to-face, the virtual classroom is found at 'the other end of the spectrum'.¹⁰ Also, virtual classrooms offer 'innovative and cost-effective ways' within the law school curriculum especially in relation to 'professional training and skills development' and they allow students and staff to participate and learn 'while sitting within the confines of their homes'.

Thus, the recent development of wireless internet access and mobile, hand-held communication devices has provided remarkable opportunities for 21st century blended learning teaching; it has called into question the efficacy of the 'industrial-age egg-crate classroom' model of teaching and learning ('T&L').¹¹ Rapid advances in technology are impacting on teaching practices at all universities. It has also developed a synchronous, asynchronous, virtual and physical blend of learning opportunities. Many higher education learning environments were built during the 19th and 20th centuries¹² and are thus not well-equipped to deal with a wireless infrastructure of learning. Fisher and Newton argue that there is a need for teachers to be supported as they move into new T&L spaces by giving them 'technologically connected spaces ... [plus] the time, space and guidance to build collaborative teams of students, colleagues and tutors.' The authors state that there are 'valid alternatives to the closed nineteenth-century classroom', which are 'gaining increasing acceptance' in discovering new information and communication technologies ('ICT') on learning.

As Victoria University ('VU') moves towards embracing technology-enhanced delivery, it is important to keep up with current innovations offered by the university's technological support structures and to utilise the opportunities in line with the strategic plans. Because students are now very technologically savvy, it is useful and important for our teaching to align with the opportunities, which technology has to offer. All students have access to computers; however, students are increasingly using their mobile devices such as tablets and phones to access the internet. Therefore, this technology creates opportunities as well as challenges for teaching law. Thus, the ever presence and availability of 'wireless broadband and mobile communications devices ... are ... changing the way that people communicate, collaborate, create and transfer knowledge'¹³; it is also presenting new opportunities for face-to-face students to engage with their teachers during and after class. In fact, it has been reported in Australia that in 2012, users are 'spending 14 minutes out of every hour online using social networks'.¹⁴

At VU, teaching platforms through online classrooms are evolving and thus an increasing number of VU students can experience the positive transformative effects of innovative education. It is cost effective and enables larger cohorts in all units, including electives. The writers have been advocating and encouraging the use of online classrooms for years. We strongly believe that all places of study have to move forward with

⁷ Ibid 143.

⁸ Sarah Ryan et al, 'The Effectiveness of Blended Online Learning Courses at the Community College Level' (2016) 40(4) *Community College Journal of Research and Practice* 285, 287, citing B Means et al, 'The Effectiveness of Online and Blended Learning: A Meta-Analysis of the Empirical Literature' (2013) 115(3) *Teachers College Record* 1.

⁹ Kathy Michael, 'Virtual Classroom: Reflections of Online Teaching' (2012) 29(3) *Campus-Wide Information Systems* 156.

¹⁰ Slomanson, above n 5, 94.

¹¹ Kenn Fisher and Clare Newton, 'Transforming the Twenty-First-Century Campus to Enhance the Net-Generation Student learning Experience: Using Evidence-Based Design to Determine What Works and Why in Virtual/Physical Teaching Spaces' (2014) 33(5) *Higher Education Research and Development* 903.

¹² Ibid 904.

¹³ Ibid 903.

¹⁴ Stephen Colbran and Anthony Gilding, 'E-Learning in Australian Law Schools' (2013) 23(1) *Legal Education Review* 201, 216, quoting Miles Godfrey, 'Australians Spending Less Time Social Networking', *The Sydney Morning Herald* (online), 19 April 2013 <<http://www.smh.com.au/technology/technologynews/australians-spending-less-time-social-networking-20130418-2i31a.html>>.

these online teaching technological advances, or be left behind stranded in the abyss. Thus, at VU, new learning environments must be re-engineered to meet these emerging challenges to existing pedagogical practices. It also enables a true synchronous/ asynchronous and virtual/physical matrix of learning opportunities to emerge for which our existing learning environment for VU students will profit admirably. A key research question that is being asked amongst some teachers then is to what extent is a physical campus still relevant? That is, ‘classrooms, students tell us, are the least creative space they can learn in’.¹⁵ We also need to acknowledge the extraordinarily rapid advances in social networking such as Twitter and Facebook, which can, at VU, all be used in learning frameworks.¹⁶ Consequently, because of the phenomenal developments in technology, the nature of education has changed and now students, at VU, expect to have teaching resources 24/7. Thus, it is important to reflect on how we can further integrate ICT into T&L at the tertiary level.

Indeed, the need for technology-based online courses pervades all disciplines – not just law schools. In the School of Accounting and Finance at VU, it was noted that the increased popularity of online learning resulted in the school’s expansion of its online teaching capabilities.¹⁷

Online learning in the United States has become ‘commonplace’ in higher education: 62.4% of higher education providers in 2012 offered whole online programs (in 2002 it was only 34.5%); this also represented a huge increase in the number of students enrolled in at least one online course (from 1.6 million in 2002 to 6.7 million in 2012).¹⁸ The demand for flexible online learning is therefore to be taken very seriously. Technology enhanced learning (‘TEL’) is becoming increasingly accepted as a ‘mainstream academic activity’.¹⁹ Kehrwald notes that ‘teacher education has a responsibility’ to prepare teachers with those skills they need for ‘21st century learners’. He points out that ‘Australia is expanding’ and thus higher education must ‘embrace changes’ for flexible TEL by acquiring the range of skills required for successful teaching.

Thus, it could be stated that ‘embracing e-learning technology is no longer an option for universities but a requirement in the pursuit of globalisation’.²⁰ In fact, Pistone puts it very plainly:

Law schools are facing ... difficulties – declining enrolments, declining job prospects for graduates, reduced public funding ... technology offers the attractive possibility of making legal education both more efficient and more effective.²¹

Technology today and tomorrow allows students to have ‘a much higher level of active engagement’.²² The laptop or desktop as the main work station is becoming ‘obsolete’. iPads, iPhones and Androids allow internet access anywhere at any time, and thus internet usage and ‘mobile data traffic’ is ‘expected to increase 11-fold’ by 2018.²³ Changes in ‘computer speeds, processing power and storage capacity’ have allowed technology to become a significant ‘tool to assist in education’.²⁴ Laster, Chief Information Officer at Harvard Business School notes, ‘[n]ever before has higher education been more expensive, and never before has technology been so well positioned to profoundly impact the future of teaching, learning, and organisational sustainability’.²⁵

¹⁵ Fisher and Newton, above n 11, 905, citing K Fisher, *Schools as Prisons of Learning: A Critical Psychosocial Pedagogy of Space* (PhD Thesis, Flinders University, 2002).

¹⁶ Fisher and Newton, above n 11, 905, citing Educause, *Spaces: Specialist Resources* (2012) <www.educause.edu>.

¹⁷ Michael, above n 9, 157.

¹⁸ Benjamin A Kehrwald and Faye McCallum, ‘Degrees of Change: Understanding Academics Experiences with a Shift to Flexible Technology Enhanced Learning in Initial Teacher Education’ (2015) 40(7) *Australian Journal of Teacher Education* 43, 44, citing I E Allen and J Seaman, *Changing Course: Ten Years of Tracking Online Education in the United States* (Babson Survey Research Group, 2013).

¹⁹ Kehrwald and McCallum, above n 18, 52.

²⁰ Michael, above n 9, 157, citing T Volery and D Lord, ‘Critical Success Factors in Online Education’ (2000) 14(5) *International Journal of Educational Management* 216.

²¹ Michele Pistone, ‘Law Schools and Technology: Where We Are and Where We Are Heading’ (2015) 64 *Journal of Legal Education* 586.

²² Ibid 587.

²³ Ibid 588, citing *Cisco Visual Working Index: Forecast and Methodology 2013-2018* (10 June 2014) <<http://www.cisco.com/c/en/us/solutions/collatera/serviceprvider/ip-ngnipnextgeneration-network/white-paper-c11-481360.pdf>>.

²⁴ Pistone, above n 21, 588.

²⁵ Cobran and Gilding, above n 14, 213, citing Stephen Laster, ‘Rethinking Higher Education Technology’ [2012] (May-June) *Educause Review* 60.

HSBC is a British multinational banking and financial services company. They have also reported ‘that Australia is the most expensive country for higher education ... since 2009 ... particularly ... in law, with relatively low levels of subsidy’.²⁶ It is therefore necessary to cut costs in legal education to remain affordable for prospective students, and this can be achieved remarkably through online and e-teaching practices.

The internet also brings about “digital wisdom” ... [that includes] enhanced access to data, enhanced ability to plan and prioritise, enhanced insight and enhanced access to alternative perspectives’.²⁷

Thus, universities are now looking for other ways to teach and learn ‘to better suit the needs of their stakeholders’. However, law schools are ‘slow to adapt’, because they are very conservative. Law students are demanding changes to the way they are being taught. Hence, ‘new models of teaching and learning’ are necessary; ‘the current generation of students’ have ‘grown up not knowing a world without the Internet and social networking ... [and are used to] working in e-learning environments’.²⁸ Thus, ‘most law schools’ would need to develop their ‘digital resources across entire teaching law programs. It is clear that e-learning is already pervasive in Australian law schools’.²⁹ Thus, ‘instructional technology’ has become part of legal education. A face-to-face class, with no instructional technology, ‘is no longer the norm’.³⁰ Consequently, in order for ‘universities to remain relevant in the modern world’, technology has to be adopted ‘as a core part of the learning experience’.³¹ John Culkin noted ‘we shape our tools and thereafter they shape us’.³² In other words, technology shapes society.

It is also important though that ‘training and guidance’ is provided to staff so that they can ‘effectively use technology in the online environment.’ This is because technological issues ‘can create a negative perception’ for students who are undertaking that online course.³³

II ENGAGING IN ONLINE TEACHING AND LEARNING

A *Online Teaching, E-Learning and the Virtual Classroom*

A ‘learner-centred collaborative learning model’ is becoming more significant these days as a result of wireless broadband technology. That is, teaching is moving from the traditional lectures and tutorials to online learning, where students are taking more responsibility for their own learning.³⁴ Thus, technology is ‘changing the ways that students learn, communicate and interact’. Many teachers are reconsidering their own roles in teaching and how and what to teach.³⁵ Also, law students are adapting to modern technology; many of them referred to as ‘digital natives’ or the Millennial generation were born into the internet since preschool, so technology has always been inextricably part of their lives. For these Millennials, ‘the Internet has always been a part of their lives’.³⁶ The benefits of teaching Generation Y, or Millennials, digitally are vast, as they have had digital technology around them since birth. These law students would be exposed ‘to work experience and environments’ in the digital world, which is not usually possible in traditional teaching.³⁷

²⁶ Cobran and Gilding, above n 14, 217, citing HSBC, *Australia Most Expensive Country for International Study, But the Tide May Turn*, (13 August 2013) <<http://www.hsbc.com.au/1/2/about/news/13/130813>>.

²⁷ Cobran and Gilding, above n 14, 215, citing Marc Prensky, ‘H Sapiens Digital: From Digital Immigrants and Digital Natives to Digital Wisdom’ (2009) 5(3) *Innovate: Journal of Online Education* <<http://nsuworks.nova.edu/cgi/viewcontent.cgi?article=1020&context=innovate>>.

²⁸ Cobran and Gilding, above n 14, 223.

²⁹ Ibid 224.

³⁰ Hess, above n 2, 83.

³¹ Andrew Murray, ‘The Value of Analogue Educational Tools in a Digital Educational Environment’ (2015) 6(1) *European Journal of Law and Technology* 1, 7.

³² Ibid 10, citing J Culkin ‘Each Culture Develops its Own Sense Ratio to Meet the Demands of its Environment’ in G Stern (ed), *McLuhan: Hot and Cool* (New American Library, 1968) 60.

³³ Meaghan Lister, ‘Trends in the Design of E-Learning and Online Learning’ (2014) 10(4) *Journal of Online Learning and Teaching* 671, 678.

³⁴ Fisher and Newton, above n 11, 907.

³⁵ Pistone, above n 21, 589.

³⁶ Hess, above n 2, 58, citing David I C Thomson, *Law School 2.0: Legal Education for a Digital Age* (LexisNexis, 2009) 81.

³⁷ Murray, above n 31, 2, citing B L Bernier and F D Greene ‘Law School Reset: Pedagogy, Andragogy and Second Life’ in Oliver Goodenough and Marc Lauritsen (eds), *Educating the Digital Lawyer* (LexisNexis, 2012) 527.

This means that the teacher of today and tomorrow needs to rely heavily on technology. Thus, many law students come to law school ‘with an expectation that such technologies have been incorporated into legal education’.³⁸ Many students incorporate the internet into ‘their educational experience’ because it assists them with their research, provides library access and allows them to communicate with other students and their teachers. In other words, students today ‘expect their learning to be active, hands-on and collaborative’.³⁹ Thus, ‘not only are law students changing, the modern practice of law is evolving as well. The practice of law is increasingly digital’.⁴⁰ That is to say, many lawyers use the internet now for research purposes.

The ‘most widely adopted technological innovation in law schools’ is online teaching.⁴¹ Many law schools now use ‘online learning technologies’ and sometimes a whole degree is ‘completed online’.⁴² Georgetown Professor, Philip Schrag, notes ‘online law school education will continue to grow in influence and that within 10 years it will overtake many traditional place-based law schools.’ He believes ‘only a handful of law schools may survive’.⁴³ Thus, ‘technology will play an increasing role in the future of legal education’.⁴⁴ Thirty-two law schools in Australia now use some type of learning management system, including Blackboard Learn, Moodle, WebCT and others as part of its teaching practices.⁴⁵ Few law schools have developed their own policies and practices on e-learning; many law schools simply ‘adopted the university policy’.⁴⁶ There are some law schools that ‘fully’ embrace e-learning so much so that there are ‘no on-campus students’ at all and everyone is ‘geographically separated’.⁴⁷

The teacher must be the facilitator of student learning, not just the provider of information in an online environment. Also, more and more legal publishers are beginning to develop online versions of their traditional printed textbooks to accommodate online T&L. Additionally, Apps for learning and games is likely to play a significant role in future legal education.

Lister, 2014, states that there are four main considerations when designing e-learning and online courses, namely course structure, presentation of content, collaboration and interaction, and timely feedback. That is, a course structure with clear expectations and rubrics is fundamental ‘in good online course design’. Regarding the presentation of content, ‘authentic tasks, active learning and self-assessments’ are significant. Real life examples, or authentic tasks, allow the student to see a real world perspective in their learning and thus appreciate its value in a much more meaningful way. Students value the opportunity ‘to collaborate with other learners in online learning environments’. They also highly value ‘prompt and timely feedback’ on their assessment tasks.⁴⁸

Teaching in the virtual classroom involves an investment of considerable time and effort. Both the teacher and students have to learn the technology and the various communication tools that will be applicable. Additionally, students with disabilities, language problems or other social phobias may find it easier to participate in classroom discussions in the virtual classroom⁴⁹. This is because the students have control of their audio and video input. If they do not want to be seen or heard, they can simply remain invisible, but still listen in to the full seminar.

³⁸ Pistone, above n 21, 591.

³⁹ Hess, above n 2, 58.

⁴⁰ Ibid 59.

⁴¹ Pistone, above n 21, 592.

⁴² Ibid 593. Pistone refers to for example: the graduate tax law programs at Georgetown Law, New York University, Villanova, and Boston University each have an online program. The graduate tax program at Alabama is entirely online. In 2012, Washington University Law School in St Louis started a fully online master’s degree program in US law. See also Steve Kolowich, *Legal Education and the Web* (8 May 2012) Inside Higher Ed <<http://www.insidehighered.com/news/2012/05/08/washington-u-law-school-offer-fully-online-degree>>.

⁴³ Pistone, above n 21, 595; Philip G Schrag, ‘MOOCS and Legal Education: Valuable Innovation or Looming Disaster?’ (2014) 59 *Villanova Law Review* 83, 84, 127.

⁴⁴ Pistone, above n 21, 603.

⁴⁵ Cobran and Gilding, above n 14, 205.

⁴⁶ Ibid 208.

⁴⁷ Ibid 216.

⁴⁸ Lister, above n 33, 676.

⁴⁹ Andrea M Seielstad, ‘Enhancing the Teaching of Lawyering Skills and Perspectives Through Virtual World Engagement’ (2012) 7 *University of Massachusetts Law Review* 40, 94.

It is also relevant to point out that almost any law subject could be taught in the virtual classroom.⁵⁰ Thus, online virtual classrooms are ‘unquestionably viable places ... to enhance the teaching of lawyering skills’.⁵¹ Indeed, Seielstad writes that virtual environments augment ‘online law school or continuing education courses’, as they ‘provide settings for ... issues in business and commercial law [and others]’.⁵² The virtual classroom is thus an ‘extraordinarily rich place’ to teach many law subjects ‘and to develop fundamental professional skills’.⁵³ With the virtual classroom, it is possible to teach and interact with students ‘across continents, disciplines, cultures, ages [and] educational backgrounds. Indeed, a few years ago in Transport Law a student participated in his virtual classroom session from as far afield as Canada, which was some 17 hours behind Melbourne in real time. Only the virtual classroom allows this kind of flexibility in synchronous T&L.

The introduction and development of the virtual classroom in Transport Law will now be considered.

B *WebEx, E-learning and Transport Law*

Transport law had not been taught since 2000. In 2012, the teacher obtained accreditation of the Transport Law (BLO 2502) unit in the LLB elective program and in other service teaching at VU. Aviation and maritime law were introduced for the first time as a field of study in the University for law and non-law students. It also permitted the integration of potential activities of the Sir Zelman Cowen Centre at VU, which provides legal education, training and research and support services on law-related topics for industry, government and the community with that of the College of Law & Justice. Because this subject has no prerequisites attached to it, any person interested in maritime and aviation law from within the University or outside can enrol in Transport Law, including airline pilots, trainee pilots, students enrolled in the Australian Defence Force Academy and personnel employed in the maritime industry.

Transport Law was offered initially as a face-to-face subject in semester 2, 2012, but then, due to a very high demand, quickly developed from 2013 as a unit taught in real time in the virtual classroom. Thus, Transport law in 2013 and 2014 was offered in both semesters 1 and 2. In semesters 1 and 2, it was taught as an online virtual classroom and as a face-to-face classroom respectively. Thus, Transport Law was the first unit in the College of Law & Justice at VU to use the virtual classroom, a synchronous technology-enabled teaching delivery program. With synchronous teaching, students and teacher all participate in the online classroom at the same time, albeit from different locations. This is ‘instantaneous communication’.⁵⁴ Thus, the students and teacher can communicate audio-visually in class discussions and during office consultation hours. Students can also download and access PowerPoint slides, tutorial weekly questions and web links asynchronously; they can also synchronously talk with one another in discussion forums or study groups at times before or after the virtual classroom begins. They have the ability to do all of this in Transport Law during the semester 24/7.

Despite many online courses offered throughout Australia, this is unfortunately not the case in the College of Law & Justice at VU – virtual online teaching in general is used very seldom. For example, at the University of Western Sydney, every subject in the Law School has an ‘online presence’, which is ‘a controlled virtual learning environment called ‘vUWS’’.⁵⁵ Furthermore, Nehme writes that the law students regard this controlled virtual learning environment as ‘especially good’. vUWS has various communication tools available to enhance the students’ learning experience. These include synchronous modes of communication including chat rooms that encourage students’ online engagement and interaction, which may lead to deeper student learning and understanding. However, only six subjects in the law school actually used chat rooms for teaching purposes.⁵⁶

⁵⁰ Ibid 68.

⁵¹ Ibid 46.

⁵² Ibid.

⁵³ Ibid 65.

⁵⁴ Cobran and Gilding, above n 14, 203.

⁵⁵ Marina Nehme, ‘The Use of Controlled Virtual Learning Environments at a Law School: A Preliminary Study’ (2012) 18(7) *International Journal of Learning* 405.

⁵⁶ Ibid 411.

In Transport Law, students are able to utilise their mobile devices and attend classes wherever in the world they may be at that moment in time. The virtual classroom is conducted in real time in a three-hour weekly seminar as a full replacement to face-to-face classes. The popularity of this unit has grown enormously with statistics revealing that it had the highest demand percentage rate in the college at 170% in semester 2, 2015. Since introducing Transport Law online in the virtual classroom, the number of students enrolled in semester 2, 2015 had risen to about 60 students (previously, in 2012, in the first Transport Law face-to-face classroom, around 25 students enrolled in the subject).

Students often indicated that they hoped that other law units could be taught in a virtual classroom. They also say that they save time and money travelling to and from the University. In semester 2, 2015, students have said: 'I'm really enjoying the course so far' (a cross-institutional student in Sydney and former Qantas cabin attendant) and 'I am very happy being able to receive lectures from home, I wish I could do that with other units...'. Another student, said: 'I am studying Transport Law this semester and I am loving it. I am definitely considering working in this area in the future'. A transport law student from 2014, noted: 'I have just been offered a graduate position with the Defence Material Organisation. I think undertaking Transport Law almost certainly helped my application. It showed that I have a genuine interest in Maritime and Aviation as well as achievement.' Furthermore, online automated university student evaluations are made available to students around the 10th week of the semester.

There is also a potential to incorporate Transport Law with logistics and transport interests across VU particularly with the Institute for Supply Chain and Logistics, which covers key industries in the west of Melbourne vital to local communities. Transport Law covers many of the legal fields which underwrite and regulate the industry.

VU provides currently a state-of-the-art WebEx platform through VU Collaborate with technical and ongoing support for the virtual classroom environment. This has provided staff with a very successful mode of teaching because the virtual classroom allows more student participation and therefore a greater amount of learning and understanding compared to traditional teaching. Why is this so? Transport Law's webpage contains over 100 URL links. The virtual classroom has a whiteboard accessible by all students. In the virtual classroom, the whiteboard features allow students to participate fully in their learning and understanding. Thus, unlike in a traditional classroom, while teaching in the virtual classroom, students may enter any URLs on the whiteboard so that other students can take part. The whiteboard has many functions allowing co-sharing of information by students, thereby engaging others and facilitating class participation. When teaching transport law, by using the functions built into the whiteboard, students may share documents, posters, links and other appropriate materials not possible in the traditional classroom. Additionally, students can hear and see the teacher and each other just as well as they do in the traditional classroom.

Students in the virtual classroom can also easily and freely participate in numerous collaborative exercises. For example, students may use the whiteboard to illustrate and explain concepts they learn to the whole class and they can also post up websites, photographs, posters, PowerPoint slides and other humour-related visual materials, such as cartoons. Thus, animation, art, puppets and video resources are used widely in Transport Law. In this way, students play a much larger role in their own learning than in the traditional face-to-face classroom. Recently, an aviation expert and author of the prescribed text on aviation law visited our law college and was interviewed on many aspects of aviation law taught in Transport Law. A 90-minute film was produced, which then allowed many shorter 10-minute videos to be produced. These videos have considerably enhanced the learning experience of Transport Law students by providing them with a real-world understanding of concepts and principles in aviation law.

At the start of the semester, students who logged into the virtual classroom in Transport Law for the first time were informed of the protocols and rules for using the online classroom. Students were reminded of the rules of defamation and they were informed of the fact that the virtual classroom is a T&L space replacing the face-to-face classroom. It is not a space for students to vent their opinions about people or for them to use as a personal platform to complain about matters unrelated to the subject or their teaching. They need to behave as if they were broadcasting in a radio or television studio.

When signing into WebEx in Transport Law, the students are welcomed into the unit and mention is made of the class prize that is on offer for the best student in the class for that semester. Also, mention is made of student expectations, including their participation in the weekly virtual classroom sessions and staff availability and office consultation hours. Some of the students undertaking Transport Law are either overseas or interstate students, and so they never physically come onto the University campus. Because of this, office consultation hours are also held in the virtual classroom on an individual basis. Appointment times are set up with students in this way as the need arises. Sometimes, however, it is difficult to maintain the set consultation times with students, and there is a common misunderstanding with students in online teaching that the teacher will be available for consultation 24/7.

Regarding the easy technical set-up and starting procedures for the virtual classroom, students using a PC, would need to install software (WebEX) simply by clicking on the virtual classroom 'join' link under the 'communication' tab in Transport Law. It would then download and install the WebEx software.

With a hand-held mobile device, such as an Apple iPad, it is very easy to enter the virtual classroom; students can simply click on the WebEx link under the communication tab. If they are using these devices, they do not require any headphones, as the student can easily communicate with the teacher and other students simply through this mobile device. If the student is using a PC, then headphones with a mouth piece needs to be connected. There is then an additional starting up protocol that the student needs to engage in to connect the headphones to the virtual classroom with the audio set-up wizard. Once this is all done, the virtual classroom becomes the replacement to the traditional face-to-face classroom mode of teaching.

The teacher retains control of the various buttons in the virtual classroom including all audio and video communications, the recording of sessions, texting (chatting), shared white board postings and writings, documents, applications and URL sharing. The students' names also appear in the white box, indicating who was joining and who was leaving the virtual classroom and precisely when and how many times during the session this was taking place. Students could also click on the many icons, which allowed them to draw their emoticons, including putting up a smiley face, LOL (laughing out loud), applauding, showing confusion, approval, or disapproval, or requesting the teacher to go slower or faster; students can also step away from the session, put their hands up when wanting to ask a question or press the button icon permitting them to disagree, agree or to stay neutral when being asked a question. Students can also place clip art on the white board, place up a screen capture, draw a straight line or rectangle, enter text, draw a pen stroke or highlight, point to items of interest on the white board or select objects. They can also load content including PowerPoint slides for the whole class to see. Of course, students can do none of this collaborative learning and class participation in a traditional face-to-face classroom, other than answer questions and enter into discussions or walk up to the blackboard or whiteboard when requested to do so by the teacher.

Thus, the e-learning tools are allowing law schools to provide greater innovative programs, which are now expected by the legal profession and the legal market itself; the tools also allow greater 'skill acquisition and practice' to be provided to students, which 'encourages [more] independent learning' and 'flexible' access to legal information as compared with traditional face-to-face teaching.⁵⁷ Moreover, e-learning tools are being used also as a way forward to lower the costs of legal education generally; additionally, students, both post-graduate and undergraduate, are also demanding nowadays that face-to-face tuition is minimised and that the use of technology is increased so that they can fit both their studies and working and family commitments into their busy schedules. The students are also recognising the 'pedagogical benefits' associated with e-learning including 'enhanced learning experiences'.⁵⁸ E-learning at its highest level allows students to learn by immersing them in the 'e-learning experience' where they 'engage in high order decision-making', for example, where they participate in a 'virtual activity' and their 'input' determines the actual 'output'.⁵⁹ An example of this is to be found in the virtual classroom where a student's input in the session regularly determines the output of the other students. In Transport Law this practice and involvement from students

⁵⁷ Rita Shackel, 'Beyond the Whiteboard: E-Learning in the Law Curriculum' (2012) 12(1) *Queensland University of Technology Law and Justice Journal* 105, 109.

⁵⁸ Ibid 110.

⁵⁹ Ibid 116, citing *LawWithoutWalls* <<http://www.lawwithoutwalls.org/virtualsections>>.

regularly occurred. A question would be asked by the teacher; a student or students would attempt an answer, and this would very often lead to connected or even unconnected issues being raised by other students as a result of their own experiences in the aviation and maritime law sectors. So, the input of one or more students can determine the output from other students.

Some teething problems in the technology did occur. Some students were unable to download the WebEx software; others had audio difficulties or internet connection issues. Some students surprisingly only bought headphones a few weeks after the start of the semester. On the whole, though, WebEx, which was used as the operating platform, worked extremely well with very few problems during the 12-week semester. Students were reminded to test their connections before classes started and to be present in the virtual classroom at least five minutes before each session commenced. As would be found in the face-to-face classroom, students arrived late for their sessions or left early. The comings and goings of each student can therefore be monitored accurately in the virtual classroom. Additionally, halfway through the three-hour session, a 10 minute break is provided to the students.

During each three-hour session, the weekly tutorial questions are discussed. The tutorial questions are based on the prescribed aviation and maritime law textbooks in conjunction with the PowerPoint slides that are placed up in files under the 'contents' section. These tutorials can assist them solving aviation and maritime law problems and issues in the real world. Six weeks out of the 12-week semester is devoted equally to aviation and maritime law matters. During the maritime law sessions, some time is also devoted to cruise ships and the relevant national and international legislation, rules and procedures relating thereto. During the virtual classroom sessions in Transport Law, students can consider the aviation and maritime law principles, practices, customs, operating procedures, legislation and rules. Indeed, because so many students come from different backgrounds and are involved in different professions, including the maritime and aviation industries, various perspectives and information is provided by these students during their Transport Law sessions. This phenomenon creates a very rich discussion forum around the syllabus and even teaches the teacher.

C Collaborative Learning and the Virtual Classroom

Collaborative learning focuses on students learning and working together in groups to complete set tasks whereas traditional teaching focuses on what the teacher is teaching. Thus, with collaborative learning, 'students benefit by exploring the logic of their own thinking and beliefs against those of others'.⁶⁰ In this way, although none of the students may separately possess the knowledge and skills to solve the problem, together they can each contribute to solving it. Collaborative learning can take place anywhere, whether online or in a face-to-face setting. Fisher et al believe that this type of learning has a 'positive influence on student learning', which has also improved student retention. Students also enjoyed interacting with one another as part of their learning and understanding of given topics. In Transport Law, it was very evident that students enjoyed working collaboratively and working out problems and issues amongst themselves. Sometimes, the teacher simply took a back stage approach and allowed the students to collaborate amongst themselves to see how the students would negotiate their way through the maze of information to determine an outcome whether it being a correct one or not.

Collaborative learning works well in the virtual classrooms in Transport Law because students all have access to the whiteboard and other online features, such as websites, which they can share with their class mates. In Transport Law, this has worked extremely successfully. Students have effectively taught each other and even the teacher with online collaborative techniques. Students enjoy humour and it is always important to make teaching as interesting as possible; pictures, photographs, cartoons, diagrams and any other video or audio presentations assist with teaching and also improve the learning and understanding of key concepts for students. So, the writers believe that they are able to create a better learning environment in the virtual classroom because of the advanced technological tools, which are unavailable in the traditional classroom.

⁶⁰ Fisher and Newton, above n 11, 908.

D *Multiple Choice Questions and the Virtual Classroom*

Steventon et al argue that multiple choice questions ('MCQs') also can play a significant role in T&L in online assessment. They say that MCQs 'have increasingly become part ... of assessing students in professional disciplines, [and] there is evidence to suggest that multiple-choice questions have for a long time been tried and tested in the assessment of legal knowledge.' MCQs have been used in some law schools for over 60 years. Furthermore, they write that in the United Kingdom

almost all Law Schools ... support their teaching through virtual learning environments, such as Blackboard ... and they provide many interesting facilities for the design and use of multiple-choice questions with a wide range of options relating to the release of answers and effective feedback.⁶¹

Thus, MCQs can be designed to test whether students have understood 'key rules, principles or other legal concepts.' In Transport Law, students were often provided with informal MCQs to determine if they have understood both the basic content and the application of aviation and maritime law principles. On many occasions, MCQs have been given on the spot and without the students expecting them. If students believe that they know the answer to the MCQ questions, they can simply press the button in their virtual classroom window to put up their hands. Accordingly, students have been quizzed on case law, legislation, principles and rules in these industries. These MCQs are given throughout the seminars to test whether the students have grasped important concepts. The MCQs are designed to address and uncover material that students may not have fully understood during the week's seminar. In Transport Law, a formal MCQ quiz worth 20% of the assessment is also given in week 6. It includes 25 MCQ questions and is of 65 minutes duration. They are given four days to complete the test. Once they choose a time to complete the test within this scheduled test period, they need to complete it within the allocated time of 65 minutes. They are also given two essay problems to complete, one on aviation law and the other on maritime law. Each essay is worth 40% of their assessment.

E *Flexibility and Convenience of the Virtual Classroom*

The virtual classroom in Transport Law provides increased flexibility and cost reductions. That is, virtual classrooms reduce the travel and parking costs for students and staff. Students in Transport Law have referred repeatedly to this advantage in their feedback.

Another advantage of the virtual classroom is that it allows staff to travel locally or internationally without the need to replace staff.⁶² So, it is possible for the teacher in Transport Law to attend other off campus meetings, conferences and functions whilst still being able to attend the weekly seminar classes as scheduled. As such, it also eliminates the costs associated with room usage and energy consumption, thereby reducing 'a student's carbon footprint'. In this way, students may study Transport Law from any location in the world. Students in Transport Law, who have previously participated in the virtual classroom, have come from as far as Canada or Asia. Michael notes that one of the biggest strengths of online classes is the ability for them to offer flexibility and convenience. Thus, 'the convenience and flexibility of such classes provides students with a more balanced lifestyle and more control over their schedules.' Michael also notes that online classes 'frees up time for students' and 'teaches them valuable time-management skills.' Indeed, students in Transport Law have reported the time saving they experience as a result of them not having to travel into University to attend lectures, or having to shuffle their daily work and family routines around to accommodate their face-to-face classes.

⁶¹ Beverley Steventon, Sukhninder Panesar and Jane Wood, 'Moving the Law School into the Twenty-First Century: Embedding Technology into Teaching and Learning' (2014) 38(1) *Journal of Further and Higher Education* 107, 109.

⁶² Michael, above n 9, 159.

III CONCLUSION

This paper described the advantages, skills and practices in creating the Transport Law virtual classroom, a place that is shared by students and teachers and allows everyone to participate at the same time (synchronous teaching) and to interact with one another in real time. This paper also included a discussion of the different teaching modalities (online and face-to-face teaching) available to the students and teachers. A contribution to virtual classroom teaching in Transport Law at VU has been the development of a significant prototype in the College of Law & Justice in the advancement of legal education. That is, the teacher has very successfully pioneered the virtual classroom prototype with Transport Law. Thus, a significant contribution to student learning, student engagement and the overall student experience through quality T&L has been made. Being an innovative teaching development, the virtual classroom has gained widespread interest from staff at other universities and from the student community. It provides ongoing exemplary practice of excellent student learning because it provides a mode of T&L that influences, motivates and inspires students to learn. It fosters student development by stimulating curiosity and independence in learning, contributes to the development of students' critical thinking skills, analytical skills and scholarly values, encourages student engagement and motivates students through high-level communication and decision-making, presentation and interpersonal skills.

The virtual classroom also develops and presents coherent and imaginative resources for student learning, demonstrates up-to-date knowledge of the field of study in the creation of resources for learning and communicates clear objectives and expectations for student learning. Furthermore, it provides respect and support for the development of students as individuals, which includes assisting students from diverse demographic groups to participate and achieve success in their courses and also influences the overall academic, social and cultural experience of higher education. Through scholarly activities, such as weekly questions, PowerPoint slides, short videos, readings and MCQ quizzes relating to the unit's contents, in this case transport law, students in the virtual classroom may contribute to professional activities relating to T&L and demonstrate leadership that have broad influence on the legal profession.

Students in Australia and abroad are now relying on virtual classrooms to obtain qualifications or a credit for units on Australian law. Teachers will need to understand how the virtual classroom educational technologies and materials work and their effectiveness in learning. Each virtual classroom requires its own creative innovation to use these technologies effectively, as a 'one-size fits all' does not work.

Overall, in terms of the University's strategic plan, the virtual classroom provides a T&L experience that empowers students to grow their capabilities and transform their lives. The unit's industry-focused content and teaching method is aligned with student needs. The unit is industry-focused, as the contents tie in with up-to-date developments in the aviation and maritime sectors. It allows teaching in the real world by introducing students to the professional bodies, associations, peoples, aircraft, ships, equipment and technology associated with these multi-billion dollar Australian industries. Australia has extremely advanced maritime and aviation operations, so it is not difficult to be able to continuously link these into the unit's areas of study for T&L purposes. Thus, Transport Law could be used as an example, which other units could follow in the College of Law & Justice and the University, in its connectivity with teaching. That is, there is a potential to incorporate transport law with logistics and transport interests across the university particularly with those industries in the west of Melbourne vital to local communities. Transport law covers many of the legal fields which underwrite and regulate the industry. As technology offered in online teaching is generic, these tools are transferable. Where these are useful, it can be replicated into other courses with ease (without the teething problems associated with the pilot introduction of Transport Law) and can be transferred into numerous educational platforms across all T&L areas of the University.

Finally, while academics have been slow in adopting the virtual classroom in teaching law subjects, there is still a great potential for them to consider how this mode of legal education could enhance real life learning and understanding. It is a particularly good place to teach fundamental lawyering skills in the law school curriculum in a most innovative and cost-effective way and, in so doing, enhancing the students' law school learning experience.

