E-LEARNING IN AUSTRALIAN LAW SCHOOLS

STEPHEN COLBRAN* AND ANTHONY GILDING**

I INTRODUCTION

Technology and social changes are moving legal education towards a crossroads, disrupting traditional modes of delivery, pedagogy and educational business models. Stakeholders such as law schools, law societies, accreditation bodies, quality assurance regulatory agencies and the judiciary face challenges presented by new modes of delivery of legal education and the potential for new non-university providers.

The United States Department of Education meta-study of the peer-reviewed literature indicated blended methods of instruction to be slightly more effective than face-to-face on-campus instruction and online approaches, both of which were equivalent in outcomes.[1]

This article presents the results of a survey of Australian law schools (the Law Associate Deans (Learning and Teaching) survey) revealing the widespread adoption of blended learning approaches incorporating elements of both distance education and e-learning. These approaches are mostly used as a supplement to on-campus, face-to-face instruction. Blended approaches are consistent with modern learning theory and the growth of online education.

The Law Associate Deans (Learning and Teaching) survey results indicate that e-learning is pervasive in Australian law schools. It is argued that more systematic law school policies, support and course-wide practices are warranted as law schools continue their adoption of e-learning methodologies. E-learning in a small number of law schools predicts practices that may evolve across the sector as more law schools provide students with flexible blended learning options. Law schools are yet to meet the challenges of mobile learning, data analytics and Massively Open Online Courses (MOOCs).

 * Professor, School of Business and Law, CQUniversity.
** e-learning Designer/Senior Lecturer, Faculty of Business, Economics and Law, La Trobe University.
1 US Department of Education, Office of Planning, Evaluation, and Policy Development, Policy and Program Studies Service, *Evaluation of Evidence-Based practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies* (2010).

II FRAMEWORK

When considering the innovative use of technology reported in Australian law schools, it is important to distinguish between distance learning, e-learning and blended learning. Similarly, a distinction should be drawn between synchronous and asynchronous communication.

Distance learning was defined by Keegan as covering 'the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which, nevertheless, benefit from the planning, guidance and tuition of a tutorial organization'.[2] Distance learning dates back to mid-nineteenth century Europe and the United States[3] and has been typically based on technologies such as printed text and audiovisual correspondence courses and, later, radio and television.

E-learning has been defined by Sangra as 'an approach to teaching and learning, representing all or part of the educational model applied, that is based on the use of electronic media and devices as tools for improving access to training, communication and interaction and that facilitates the adoption of new ways of understanding and developing learning'.[4] E-learning builds on distance learning through the use of Internet technologies for the delivery of content and by the construction of learning communities using both asynchronous and, to a lesser extent, synchronous, communication and collaboration technologies. For the purpose of this article, e-learning and online education are treated as equivalent concepts.

Blended learning according to Torrisi-Steele, 'broadly refers to the use of technology with face-to-face teaching'.[5]

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[2] Desmond Keegan, 'On Defining distance education' (1980) 1(1) *Distance Education* 13

[3] Adult Learning Activities, California Distance Learning Project, *What is Distance Learning?* (26 May 2012) <http://www.cdlponline.org/index.cfm?fuseaction=wh atis&pg=3>.

[4] Albert Sangrà, Dimitrios Vlachopoulos and Nati Cabrera, 'Building an inclusive definition of e-learning: An approach to the conceptual framework' (2012) 13(2) *The International Review of Research in Open and Distance Learning* 1<http:// www.irrodl.org/index.php/irrodl/article/view/1161>.

[5]   Geraldine Torrisi-Steele and Steve Drew, 'The literature landscape of blended learning in higher education: the need for better understanding of academic blended practice' (2013) *International Journal for Academic Development* 1, 2. See also Geraldine Torrisi-Steele, 'This Thing Called Blended Learning — A definition and planning approach' in K Krause et al (eds), *Research and Development in Higher Education: Reshaping Higher Education* (Gold Coast, 2011) 360–71 and Jennifer Ireland, 'Blended Learning in Intellectual Property: The Best of Both Worlds' (2008) 18 *Legal Education Review* 139. For an example of the early use of the Internet see Bernadette Richards, 'Alice Comes to Law School: The Internet as a Teaching Tool' (2003) 14(1) *Legal Education Review* 115

Synchronous[6] communication is a real-time event enabling two-way communication (for example, a telephone conversation, a lecture, tutorial, chat session or videoconference). No distinction need be made between physical or virtual presence, given the current state of communication technologies. All are examples of instantaneous communication.

Asynchronous[7] communication involves a temporal time shift between delivery and receipt of information (for example, a discussion board, recorded lecture, email, Facebook post and tweets).

Typically in distance and e-learning approaches, students and teachers are separated by place and time. Consequently, learning often occurs in an asynchronous setting. In an on-campus environment, learning may occur in a synchronous setting: a lecture, seminar, moot or through discussions in informal settings. The synchronicity of the on-campus experience may be replicated in an e-learning environment using video conferencing software such as Adobe Connect, Blackboard Collaborate, or Zoom.us.

Blended learning challenges the purpose, boundaries and practices of both synchronous and asynchronous learning and teaching events. Appendix 2 outlines typical teaching activities, types of communication and examples of associated technologies. The table is not intended to be an exhaustive statement of all available options.

Various Australian studies have looked at the concepts of blended learning, enhancing student learning, e-learning and student motivation, and many examples of innovative practice have been reported in this journal. This article, however, reports on the first comprehensive survey on the nature and extent to which Australian law schools currently engage with distance learning, e-learning, and blended approaches to legal education.

A *Methodology*

Implementing a mixed method design,[8] a combination of forty interviews[9] and email discussions were conducted with Associate Deans (Teaching and Learning) or equivalent staff at 34 Australian law schools and the Law Extension Course[10] between October 2011 and May 2012. These 35 entities are collectively described as 'law schools'.

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[6] Stefan Hrastinski, 'Asynchronous and Synchronous E-Learning' (2008) 31(4) *Educause* 51

[7] Ibid.

[8] Michael Lewis-Beck, Alan Bryman, and Tim Liao, *The SAGE Encyclopedia of Social Science Research Methods* (Sage Publications, 2004) vol 2, 650; Abbas Tashakkori and Charles Teddlie (eds), *Handbook of Mixed Methods in Social and Behavioural Research* (Sage Publications, 2003).

[9] HE12-039 Human Research Ethics approval.

[10] Administered by the New South Wales Legal Profession Admission Board.

The mixed method design enabled an institutional ethnographical mode of inquiry into law school approaches to e-learning.[11] We wanted to know two things. Firstly, how were law schools using a variety of technologies to support their teaching and learning? Secondly, how were teaching practices and traditions evolving in response to the opportunities and challenges of technology? Associate Deans (Teaching and Learning) were assumed to have broad oversight of e-learning within their law school and to be best placed to respond to questions on these topics. This was supplemented by interviews with academics cited by the Associate Deans (Teaching and Learning) as having advanced e-learning skills within the same law school. The methodology follows a positivist tradition by identifying software applications and counting the instances of their use in different law schools.

The approach remains interpretive and qualitative in seeking to understand e-learning related developments in law schools. The study is limited by the extent to which the Associate Deans (Teaching and Learning) were cognisant of the various developments happening within their law school. While they were aware of policy developments within the school, they were not always aware of all the technology-enabled teaching and learning innovation that may be happening in their school, especially in large campus based settings. Associate Deans' (Teaching and Learning) perceptions of what may be important and occurring within their respective law schools may not necessarily match what is published in the literature as emanating from their schools.

Further information was sought from academics who were perceived by interview participants as innovators due to their use of interesting or novel technology. Some respondents were using e-grading software, video conferencing systems, audience response systems, animations and virtual worlds such as Second Life. Others were using more active learning methods that were supported through particular technologies. Some had developed sophisticated uses of problem-based learning and peer review, which represented significant departures from the more traditional approaches employed in law schools. Some, but not all, of the academics' innovations appear in literature related to legal education and technology.

The interviews were semi-structured and designed for depth.[12] Set interview questions were supplemented with freeform questions to further explore the information provided. The questions represented a starting point for a conversation about the developments in the

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[11]   Majorie DeVault and Lisa McCoy, 'Institutional Ethnography Using Interviews to Investigate Ruling Relations' in James Holstein and Jaber Gubrium (eds), *Inside Interviewing New Lenses, New Concerns* (Sage Publications, 2003) ch 18.

[12]   Tom Wengraf, *Qualitative Research Interviewing* (Sage Publications, 2001) ch 1.

participant's law school. Interviews were not recorded but notes were taken and verified through subsequent email with the participants. The set interview questions were as follows.

Section 1: Technical information

1. What learning management system is used in your law school?
2. What other enterprise level systems are used for teaching in your law school?

Section 2: Practice

3. What proportion of staff make use of the Learning Management System in their teaching?
4. What features of the Learning Management System are commonly used in teaching?
5. Have any strategies for mobile learning been initiated?
6. Does the school or university have any policy or strategy for online learning?
7. What impediments exist within your school from adopting mixed mode delivery including on-line learning?

Section 3: Good Practice exemplars

8. Are there any staff with innovative on-line practice that should be showcased?

III RESULTS

A summary of the results on each of the set interview questions is presented in Appendix 1.

A *Learning Management Systems*

The use of a Learning Management Systems (LMS) in the Australian higher education sector is now mainstream. In total, 32 law schools used an LMS: 15 used Blackboard Learn, 12 used Moodle, 2 used Desire to Learn, 2 used WebCt, and there was one in-house system. Most law schools (27) indicated that 100 per cent of staff use the central LMS.

Most law schools operate within a framework of institutional policies that require an LMS presence for all courses. Law schools have adopted three categorical responses to imposed institutional e-learning frameworks.

- Mandatory course LMS websites with limited standard information required by the University, but not used by academics to any significant extent (25 schools).
- Optional usage with varying content across units with low levels of academic use (2 schools).
- Mandatory LMS websites with high usage by academic staff and students (5 schools).

An LMS is predominantly used for the delivery of course materials. Most universities pre-populate each LMS course website with course outlines and default layouts. Other tools such as electronic assignment submission, online assessment, discussion forums, blogs and wikis were used to a limited degree. A large number of schools use discussion forums (21), with a slightly smaller number using assignment submission, online surveys and tests. Several years ago the predominant use of a central LMS was to distribute PowerPoint slides, subject guides and other essentially print-based learning resources and readings to students. There now seems to have been some shift towards the greater use of e-learning communication tools in the sector.

B *Lecture Capture Systems*

A little over half of Australian law schools used some form of lecture capture software which included the function of recording and archiving lectures. Echo 360 dominates lecture recording software for survey respondents. This type of software is designed to support a traditional campus-based lecture paradigm. The ability to produce, edit and store learning experiences online has seen lectures begin to move from the lecture hall to the academic's desktop, or simply being abandoned altogether.

Lecture capture systems are currently used predominantly in larger, campus-based universities in metropolitan regions. The systems capture video and audio, or just audio. These systems are a simple bolt-on to traditional teaching techniques rather than any systematic redesign of learning and teaching approaches to better suit emerging e-learning practice.

Law schools in distance universities rely much more on asynchronous online communication with students. These law schools have developed learning materials that both accommodate and support independent learning.

Only a handful of regional law schools reported using synchronous online instruction. The ability to conduct online tutorials is supported by software such as Blackboard Collaborate, Adobe's Connect and more recently Zoom.us. This type of software supports live face-to-face interactions over the Internet, such as tutorials, presentations, discussions and moots.

C *Podcasts*

In response to student pressure, podcast recordings of lectures are now commonplace, despite some staff resistance and anecdotal suggestions of the decline in student attendance at lectures.[13] Significant numbers of students choose not to attend lectures and want to work asynchronously at a time that suits them. Basic course materials are now provided online in all but a few law schools. The model often consists of simply making available existing documents and podcasts of live lectures via the LMS rather than designing a course specifically for the Internet and mobile learning. The degree of interactivity in repurposed content delivered via the Internet may be at a very low level of sophistication and instructional design.

D *e-Grading*

Five law schools reported using e-grading systems. Two law schools reported using the features of the LMS, two reported using Grademark and one used ReMarksPDF. The potential cost savings associated with e-grading workflows have not yet resulted in widespread adoption of these technologies.

E *Data-Matching*

A significant use of data matching software to help prevent and detect plagiarism was reported. A total of 20 universities use plagiarism software. Most universities used Turnitin. Some use SafeAssign as part of their Blackboard LMS subscription. None reported using Urkund.

F *Other Software Tools*

There is small usage of other software tools. These tools have specific purposes, for example to support the development of digital resources, increase communication and collaboration, sustain document repositories and support online assessment.

Many pedagogically exciting innovations are taking place within the law schools that responded to the Law Associate Deans (Learning and Teaching) survey. There were examples of the development of online assessment databases; use of videoconferencing software to

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[13] For discussion of the video recorded and podcast lecture see Helen Larkin, '"But they won't come to lectures ...": The impact of audio recorded lectures on student experience and attendance' (2010) 26(2) *Australasian Journal of Educational Technology* 238; Wendy Leadbeater et al, 'Evaluating the use and impact of lecture recording in undergraduates: Evidence for distinct approaches by different groups of students' (2013) *Computers & Education* 61, 185; Blanche O'Bannon et al, 'Using podcasts to replace lecture: Effects on student achievement' (2011) 57 *Computers & Education* 1885

assist advocacy classes online; use of e-grading software to support feedback to students; development of portfolios and simulated e-learning environments for students to use more problem oriented curricula; and use of animations and simulations.

G *Mobile Learning*

Only two law schools reported having considered strategies for introducing mobile learning. Thirty law schools indicated they had no strategy for mobile learning. There is no evidence of any comprehensive review of mobile-specific design issues, building mobile development options into content development processes, development of associated policy, or strategies for deployment in the majority of Australian law schools. Quinn observes:

> All e-learning strategy requires a vision of the larger performance ecosystem ... in which the overall picture of e-learning, performance support, content models (greater integration), mobile (broader distribution), social learning, and more are considered … At the end, the goal is to have a coherent environment, in this case for learning. That is, a solution is desired that blends the technologies to match the right learning outcome to the right delivery medium.[14]

There is considerable scope for improvement in the way Australian law schools approach mobile learning.

H *Policy*

Few Australian law schools have developed policies or practices based on pedagogical principles designed specifically for use of technology supporting blended or e-learning. Twenty law schools reported no policy. Ten adopted the university policy. Four had a school policy consistent with the minimum elements of university policy. Four law schools had a policy extending beyond that of the university. Four participants were unsure of whether their law school had any relevant policy.

Comments made in responses to the Law Associate Deans (Learning and Teaching) survey revealed gaps between policy, implementation and practice as perceived by those at different levels of university structures — Pro Vice-Chancellor (Teaching and Learning), Faculty Associate Deans Teaching and Learning, School Teaching and Learning Committees and individual academics. There

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[14]   Clark Quinn, *The Mobile Academy: mLearning for Higher Education* (Jossey-Bass, 2012) 98–9. See also Retta Guy, *The Evolution of Mobile Teaching and Learning* (Informing Science Press, 2009); Mohamed Ally, *Mobile Learning Transforming the Delivery of Education and Training* (AU Press, 2009); Gary Woodill, *The Mobile Learning Edge: Tools and Technologies for Developing your Teams* (McGraw-Hill, 2011).

are many non-transparent layers. The gap appears to widen, moving down the university structure with increasing levels of disinterest.

I *What Impediments Prevented the Adoption of Blended Learning?*

Respondents, when asked the question 'what impediments exist within your school from adopting mixed mode delivery including on-line learning?', identified six broad categories of impediments:

Workload implications: Two explanations were given. First, existing workloads were high and there was insufficient time and human resources to move to a mixed mode or online delivery of the law course. Second, time is needed to produce quality mixed mode or online courses.

Career priorities: There were only two comments acknowledging that careers are still built on research outputs rather than teaching scholarship and performance. Tied to this view was a comment acknowledging that existing workload models may not adequately accommodate the work needed to produce and deliver mixed mode or online law courses.

Commitment to existing practices: There was a mix of comments in this category indicating several possible reasons for not transitioning to blended and online delivery. Reluctance to change was expressed by respondents, reflecting the age of the academic, a conservative attitude among law academics and a perception that current face-to-face teaching is more effective than a blended mode and/or online delivery. Reluctance to change was expressed more frequently than commitment to any particular learning and teaching pedagogy.

Law academics' knowledge and skills: The comments indicated a lack of knowledge and skills relating to the technologies available to deliver mixed mode and online courses. There was also a lack of knowledge of how to best use these technologies in pedagogically effective ways, let alone in effective blended modes and online teaching practices. This lack of knowledge related to technology, curriculum renewal and teaching effective practices.

University policy and infrastructure: The respondents' comments point to a range of issues including: ineffective technology infrastructure, lack of appropriate support staff, university and school policies that do not assist in the transition to mixed mode or online delivery of law courses, and a lack of local champions to lead the transformation of the school. Comments indicated a university, faculty and school issue, namely that existing policies and procedures established for face-to-face teaching settings may actually interfere with the transition to mixed and online teaching.

Student knowledge and skills: Only one comment raised the possibility that students may have insufficient technical skills to participate in mixed mode and/or online learning. Far more comments indicated lack of staff knowledge and skills.

The respondents' comments regarding impediments to the adoption of mixed mode or online delivery of courses point to implications at individual, school-based and institutional levels.

The literature indicates some positive correlation between age and reluctance to utilise technology, but there are numerous counter-examples.[15] Respondents identified workload and limited time[16] a significant impediment to the adoption of mixed mode delivery and on-line learning. Consistent with the literature,[17] staff assumed workloads may increase with the adoption of any new technology. The pressure for change is happening in a climate where factors such as budget constraints, declining Australian Tertiary Admissions Rank (ATAR)[18] entrance requirements, larger class sizes, and demands for research output are seen as increasing workloads and pressure on law academics.

At the school level, there appears to be a lack of champions to support and illustrate new blended or mixed modes of delivery. There is a philosophical and practical divide between face-to-face, on-campus delivery and blended or e-learning in the minds of many academic staff interviewed. A little under 50 per cent of comments focused on staff workload issues and a commitment to more traditional practices, for a wide range of reasons. Workload at the school level does not appear to be recognised in a way that supports school and institutional change toward a broader adoption of mixed mode delivery and online learning. Strategic intervention may be required at both the institutional and school levels to enable the advances of early adopters to be replicated by their colleagues with the necessary support structures and training being provided.

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[15] Mohamed Elsaadani, 'Exploring the Relationship between Teaching Staff Age and Their Attitude towards Information and Communications Technologies (ICT)' (2013) 6(1) *International Journal of Instruction* 216; Nan Adams, 'Educational computing concerns of postsecondary faculty' (2002) 34(3*) Journal of Research on Technology* 285; Jenny Meyer, 'Workforce age and technology adoption in small and medium-sized service firms (2011) 37(3) *Small Business Economics* 305

[16] See Glenn Hardaker and Gurmak Singh, 'The adoption and diffusion of eLearning in UK universities: A comparative case study using Giddens's Theory of Structuration' (2011) 28(4) *Campus-Wide Information Systems* 221; Thomas Beggs, 'Influences and Barriers to the Adoption of Instructional Technology' (Paper presented at the Mid-South Instructional Technology Conference, Murfreesboro, TN, 9–11 April 2000).

[17] Baiyun Chen, 'Barriers to Adoption of Technology-Mediated Distance Education in Higher-Education Institutions' (2009) 10(4) *Quarterly Review of Distance Education* 333

[18] Undergraduate Admissions Center, *UAC Undergraduate — ATAR for 2013–14 admissions* <http://www.uac.edu.au/undergraduate/atar/>.

University policy, infrastructure and support remain issues to be addressed. Policy grounded in on-campus, face-to-face teaching methods may limit exploration and adoption of new practices that challenge student expectations of what learning means at a university. Staff expectations of teaching practices and university requirements in terms of workload and teaching practices for academics may also be diverging. Some respondent comments point to the inadequacy of current teaching technology support and training to assist law academics in using new teaching technology at their computer desktop.

J *Law School Identified Good Practice Exemplars*

Australian law schools report pockets of innovation in the use of e-learning in individual courses and across entire programs. Respondents were asked to identify the most significant use of online technology in their respective schools. What emerged from this was that most development work appears to be isolated to a few individual staff who demonstrate exemplary examples of blended and e-learning.

In terms of audio-visual e-learning exemplars, there is now the use of animation,[19] art,[20] puppets,[21] video resources,[22] and teleconferencing[23] in Australian law schools. There have been extensive online developments in assessment,[24] problem based

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[19] Stephen Colbran, 'The ethics of delinquent and guilty clients — using animation as a formative assessment tool' (Paper presented at the Association of Law Teachers, 47th Annual Conference, Oxford, 1–3 April 2012).

[20] Ambelin Kwyamullna uses her own art in indigenous law courses.

[21] R Hartwig and J Roy, *Courtroom Confessions* (27 May 2012) <http://www.youtube.com/watch?v=m4IHUxUd2AE&feature=channel&list=UL>.

[22] Felicity Wardhaugh uses practitioner video resources to support case studies and simulations in Civil Procedure; N Lemont et al, 'Video annotation for collaborative connections to learning: Case studies from an Australian Higher Education context' (unpublished book chapter). The Media Annotation Tool allows students to annotate video for reflection, making video active and collaborative.

[23] Margaret Stephenson integrates an international, intercultural dimension into teaching and learning in her Law and Indigenous Peoples course through the innovative use of video-conferencing technology. Les McCrimmon teaches Advocacy using Collaborate based online synchronous classes.

[24] Stephen Colbran, 'Evaluation of alternative feedback mechanisms on student engagement with assessment feedback', in G Williams et al (eds), *Changing Demands, Changing Directions* <http://www.ascilite.org.au/conferences/hobart11/downloads/papers/Colbran-concise.pdf>; Stephen Colbran, 'The ReMarks PDF e-Grading workflow', Transforming Assessment Webinar (2 May 2012) <http://www.youtube.com/watch?v=gT2v7N6aVMM>. Aidan Ricketts conducts group work in which first-year online students find a resource (a play, song, video, text, including from the popular media) relevant to the topic and present it to the cohort via the LMS discussion forum. The online students build a library of engaging materials useful for future iterations of the course. Karina Murray requires students to complete a non-assessable online quiz before receiving the next week's content package. Andrew Hemming, 'Online tests and exams: lower standards or improved learning?' (2010) 44(3) *The Law Teacher* 283.

learning,[25] role plays,[26] simulations,[27] postgraduate supervision networks[28] and mediation.[29]

IV Analysis

Having obtained a snapshot of practice in Australian law schools, it is useful to reflect on

- how technology is altering legal education;
- whether it is useful to compare the outcomes of face-to-face learning, e-learning and blended learning; and
- future predictions surrounding learning analytics including MOOCs and the transformations that may be necessary in the not so distant future.

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[25] Geoff James uses online problem-based learning for Equity and Trusts law. The content of the unit is studied through analysis of 15 problems. There are no formal lectures, but students may attend problem analysis sessions on campus and online using Blackboard Collaborate. Each peer support group has its own discussion forum and access to an online classroom. Students organise themselves in peer support groups. The class online discussion acts as a continuous, asynchronous, multi-topic learning resource.

[26] Anne Hewitt and Bernadette Richards, 'Using Online Role Play to Transform the Student Experience — A stepping stone to professional life?' (Paper presented at the Education Research Group of Adelaide Conference, the University of Adelaide, South Australia, 28–30 September 2011); L Kam, K Douglas, and M Toohey, '(Re) Assessing Professional Legal Education' (Paper presented at the Law Teachers Association Conference, Oxford, 1–3 April 2012). The authors use a problem based learning design combined with authentic and learning components used with first-year classes. The design enabled students to engage in simulated practice, role-playing as trainee lawyers in mock firms. A supporting website provided documents including precedents, tips, and practitioner video to scaffold face-to-face learning. Michelle Ruyters, Kathy Douglas and Fang Law, 'Blended learning using role-plays, wikis and blogs' (2011) 4(4) *Journal of Learning Design* 45

[27] Des Butler's blended learning program was developed, including instruction on theoretical and philosophical underpinnings of legal ethics, together with *Entry into Valhalla*, an online suite of modules featuring self-test quizzes and machinima scenarios depicting legal dilemmas confronting the members of a fictional law firm. The project website includes a detailed resources manual and instructional videos. <http://www.olt.gov.au/system/files/resources/Butler_D_QUT_Fellowship_report_2011.pdf>. Brian Cambourne's innovation in assessment engendering authentic experiences to instill strong professional skills in forensic accounting and evidence law students via experience in authentic courtroom simulations. Segrave, Holt, Cybulski, O'Brien and Munro have developed goal-based, role-play digital simulations (e-Simulations) for educating the professions. The e-Simulations are designed to enhance student learning in a range of professions and are delivered in multiple blended-learning contexts, with online student tracking for assessment and evaluation.

[28] Stephen Colbran's Australian Law Postgraduate Network demonstrates a collaborative method for supervision of higher degree students by encouraging a community of practice across institutions within the specific discipline of Law.

[29] Kathy Douglas and Belinda Johnson, 'The Online Mediation Fishbowl: Learning about Gender and Power in Mediation' (2008) 1 *Journal of the Australasian Law Teachers Association* 10

A *How Technology is Altering Legal Education*

Steven Laster, Chief Information Officer at the Harvard Business School, observed in the May/June 2012 edition of *Educause* [30]

> These are interesting times for higher education and its supporting technologists. Never 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 organizational sustainability.

The stage is set for technological innovation and potential disruption to standard university operating models, which, for some universities, may become unsustainable. James Flynn observes that 'the educational world is particularly susceptible to disruptive innovation because it relies heavily on communication and technology'.[31]

Imagine if a university law school with a well-recognised brand, or co-branded with a recognised law firm, offered law courses, leading to both qualification and accreditation, at a substantial discount and delivered in a flexible manner via the Internet. This would pose a significant risk to other law schools' operational and financial models. It would have a profound impact on law schools, as academics and students now perceive them. Academics should not assume, for example, that a law degree from a university will forever remain the standard admission qualification for the legal profession.

The nature, location, flexibility, and context of learning and teaching are evolving and changing. The cost of a law degree may fall if new competitors enter the market for legal education and pressure sees reduction in the length of qualifications required to enter the profession. It is possible to obtain an Australian law degree in two and a half years in some law schools, including summer and winter terms. United Kingdom admission requirements have reduced substantially in recent years, prompting additional study for admission in Australia.[32] There is a similar pressure in the United States [33] Changes in the way academics believe students learn, and emerging technologies available to teaching staff and students, are potentially disruptive to traditional patterns of legal education. Traditional approaches focus on face-to-face delivery of standard oral lectures and tutorials in the same physical location. Social changes in education combined with new technology place pressure on legal academics to reflect on their teaching, the way their students

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[30] Stephen Laster, 'Rethinking Higher Education Technology' (2012) May/June *Educause* 60

[31] James Flynn, 'MOOCs: Disruptive Innovation and the Future of Higher Education' (2013) 10(1) *CEJ* Series 3 150.

[32] Legal Profession Admission Board (NSW), *Policies for Overseas Applicants for Admission* <http://www.lpab.lawlink.nsw.gov.au/agdbasev7wr/lpab/documents/pdf/policies_for_os_apps_11mar09.pdf>.

[33] 'For many, two years is plenty', *The Economist* (New York), 31 August 2013, 31.

learn, and community expectations of the role of a university — that of a law school in particular.

Table 1 categorises some of the disruptive elements affecting learning and teaching practices in Australian law schools.[34] We have chosen a couple of longstanding disruptive technologies as well some of those technologies forecasted[35] as changing the landscape of higher education in the not too distant future.

Table 1: Disruptive Elements

Disruptive Technologies	Disruptive Social Changes
Internet connectivity	Digital natives
e-Learning	Time shifting
	Transition from content delivery to collaboration and engagement
Social media and networking	Collaboration across time and location
Digital resources (eg online primary and secondary materials, eBooks) changing the nature, functions and physical design of law libraries	The desire for physical and virtual collaborative learning spaces. Do academics and students really need a library with hard copy books?
Massively Open Online Courses (MOOCs)	Linking current and past learners in a stream of lifelong learning.
	University partnerships with online educational technology providers
The rise of learning ecosystems over one-size fits all Learning Management Systems	Demand for student-designed (tailored) learning
Learning Analytics increasingly associated with Teaching and Learning Standards	Measurement and accountability

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[34] A more extensive examination of significant developments in technologies supporting teaching, learning and research may be found in L Johnson, S Adams and M Cummins, *Technology Outlook for Australian Tertiary Education 2012–2017: An NMC Horizon Report Regional Analysis* (The New Media Consortium, 2012) <http://www.nmc.org/pdf/2012-technology-outlook-australian-tertiary-education-A4.pdf>.

[35] L Johnson et al, *Technology Outlook for Australian Tertiary Education 2013–2018: An NMC Horizon Project Regional Analysis* (The New Media Consortium, 2013) <http://www.nmc.org/pdf/2013-Technology-Outlook-for-Australian-Tertiary-Education.pdf>.

Internet Connectivity

A person who was has grown up with digital technologies from an early age may be categorised as a digital native. The term was first used to distinguish between digital natives and digital immigrants.[36] The latter refers to people born before the general introduction of digital technology transitioning to adopting technology. More recently, Marc Prensky has proposed the concept of 'digital wisdom', which he defines as

> a twofold concept, referring both to wisdom arising *from* the use of digital technology to access cognitive power beyond our innate capacity and to wisdom *in* the prudent use of technology to enhance our capabilities.[37]

Those who have grown up using digital technology for communication and interaction may work and learn in fundamentally different ways from those who grew up before digital technology became ubiquitous. The traditional in-person lecture or tutorial teaching paradigm that is very familiar to digital immigrants may no longer be as useful to digital natives, who may have little time or need to attend lectures, and who are more likely to want to access the Internet for relevant resources.[38] Internet-based materials are flexible, available 24/7, and avoid the cost and time of transport to a lecture venue, but above all may potentially lead to the advantages of 'digital wisdom' identified by Prensky — enhanced access to data, enhanced ability to plan and prioritise, enhanced insight, and enhanced access to alternative perspectives.

2 e-Learning

Albert Sangra, after conducting an extensive literature review and a Delphi[39] survey of expert opinions, proposed the following inclusive definition of e-learning.

[36] Marc Prensky, *Digital Natives, Digital Immigrants* in *On the Horizon* (MCB University Press, 2001).

[37] Marc Prensky, 'H. Sapiens, Digital: From Digital Immigrants and Digital Natives to Digital Wisdom' (2009) *Innovate: Journal of Online Education* republished at <http://www.wisdompage.com/Prensky01.html>.

[38] Sugata Mitra, *Build a School in the Cloud* (February 2013) TED <http://www.ted.com/talks/sugata_mitra_build_a_school_in_the_cloud.html>; Duncan Folley, 'The Lecture is Dead. Long Live the e-Lecture' (2010) 8(2) *Electronic Journal of e-Learning* 93; Maree Gosper et al, 'Web-Based Lecture Technologies and Learning and Teaching: A Study of Change in Four Australian Universities' (2011) 15(4) *Journal of Asynchronous Learning Networks* 84; Ahmad Al-Huneidi, 'Constructivism Based Blended Learning in Higher Education' (2012) 7(1) *International Journal of Emerging Technologies in Learning* 4; Alison Head and Michael Eisenberg, *Truth Be Told: How College Students Evaluate and Use Information in the Digital Age*, Project Information Literacy Progress Report (2010).

[39] The Delphi survey uses a process of iterative group facilitation. The objective is to produce group consensus. For guidelines on using the Delphi survey see F Hasson, S Keeney and H McKenna, 'Research guidelines for the Delphi survey technique' 32(4) (2000) *Journal of Advanced Nursing* 1008

E-learning is an approach to teaching and learning, representing all or part of the educational model applied, that is based on the use of electronic media and devices as tools for improving access to training, communication and interaction and that facilitates the adoption of new ways of understanding and developing learning.[40]

E-learning has matured from a platform for content delivery to one involving online collaboration and communication. This transformation has broadened the scope of when and how students learn and the approaches to education available to academics. Universities have slowly moved from content delivery to more active learning designs supported by different models of communication and collaboration. This represents a significant disruption to university academics, many of whom are digital immigrants focused on the development of the discourse and content within their legal specialisation. However, some law schools have fully embraced the opportunities presented by e-learning. In such environments, there are no on-campus students. All students and staff are geographically separated. All materials are electronic and publicly accessible through iTunesU. Instruction and collaboration is conducted entirely by mobile e-learning methods.[41]

3 *Social Media and Networking*

Digital natives and older digital immigrants use internet-based applications such as Wikipedia, Blogger, Facebook, Twitter, YouTube, WordPress and LinkedIn on a daily basis. In 2012, the total time spent on social media in the USA increased by 221 billion minutes.[42] In Australia in 2012, 'average users are now spending 14 minutes out of every hour online using social networks'.[43] Web 2[44] applications challenge law academics to make greater use of student activity beyond the 'classroom'. It allows for students to contribute to class through the development and sharing of content. It provides opportunities for academics to use more imaginative

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[40] Albert Sangra, Dimitrios Vlachopoulos and Nati Cabrera, 'Building an Inclusive Definition of E-Learning: An Approach to the Conceptual Framework' (2012) 13(2) *The International Review of Research in Open and Distance Learning* 152

[41] For example, the CQUniversity law program is entirely cloud based.

[42] Newswire, *Social Media Report 2012: Social Media Comes of Age* (13/3/2012) Neilson <http://www.nielsen.com/us/en/newswire/2012/social-media-report-2012-social-media-comes-of-age.html>.

[43] Miles Godfrey, 'Australians spending less time social networking', *Sydney Morning Herald* (online), 19 April 2013 <http://www.smh.com.au/technology/technology-news/australians-spending-less-time-social-networking-20130418-2i31a.html>. See also Public Relations Institute of Australia, '13 million Australian spend 18 hours a day online' (12 July 2012) <http://www.pria.com.au/industrynews/13-million-australians-spend-18-hours-a-day-online>.

[44] Web 2.0 websites include dynamic and collaborative elements, eg social media, blogs, wiki. The term Web 2.0 was created by Darcy DiNucci in 1999: see Paul Graham, 'Web 2.0' (November 2005) <http://www.paulgraham.com/web20.html>.

forms of assessment, even though the prospect of more sophisticated forms of cheating appear ever present.[45]

4 *Digital Resources*

While governments develop policies to increase access to higher education, the cost of higher education is increasing around the world.[46] HSBC reports that Australia is the most expensive country for higher education.[47] This has been the case since 2009. Costs have risen 166 per cent during that period.[48] While these reports focus on international students, they are a proxy for the actual cost of higher education for domestic students, particularly in disciplines such as law, with relatively low levels of subsidy. The Grattan Institute Report, *Mapping Australian Higher Education*, states that 83 per cent of the cost of a law degree is paid by domestic students.[49] Part of the problem is that the cost of education — including tuition, ancillary fees, books and study materials — has increased to the point where it may be difficult for students from lower socio-economic groups to afford it.[50] The Australian Scholarship Group estimates the year course costs for law will rise from $9,792 per year in 2013 to $15,545 in 2023. The Australian Scholarships Group Cost of University study 'compiled by the not-for-profit organisation, considers a range of variables including university fees, transport, computers, study placements and rent to determine the true cost of a university education.'[51] There is a risk that the current business

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[45] Jeffrey Young, 'MOOC Provider Will Use Typing Patterns to Verify Student Identities' (2013) 59(19) *Chronicle of Higher Education*, 00095982, 1/18/2013.

[46] Michelle Jamrisko and Llan Kolet, 'Cost of College Degree in US Soars 12 Fold: Chart of the Day' *Bloomberg* (15 August 2012) <http://www.bloomberg.com/news/2012-08-15/cost-of-college-degree-in-u-s-soars-12-fold-chart-of-the-day.html>; Steve Odland, 'College costs out of control', *Forbes* (24 March 2012) <http://www.forbes.com/sites/steveodland/2012/03/24/college-costs-are-soaring/>.

[47] 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>.

[48] International Advisory Council, *Australia — Educating Globally. Advice from the International Education Advisory Council* (February 2013), 24 <https://aei.gov.au/IEAC2/theCouncilsReport/Documents/Australia%20–%20Educating%20Globally%20FINAL%20REPORT.pdf>.

[49] Andrew Norton, *Mapping Australian Higher Education* (Grattan Institute, 2013) 52.

[50] Alex Usher and Jon Medow, *Global Higher Education Rankings 2010 Affordability and Accessibility in Comparative Perspective*, Higher Education Strategy Associates (October 2010) <http://www.ireg-observatory.org/pdf/HESA_Global_Higher_EducationRankings2010.pdf>; United States Government Accountability Office, *Report to Congressional Committees: College Textbooks Students Have Greater Access to Textbook Information*, (June 2013) <http://www.gao.gov/assets/660/655066.pdf>; David Schick and Mary Marklein, 'College students say no to costly textbooks', *USA Today*, (20 August 2013) <http://www.usatoday.com/story/news/nation/2013/08/20/students-say-no-to-costly-textbooks/2664741/>.

[51] Australian Scholarships Group, 'The cost of a university education to jump by 50 percent (regional)' (Media Release, 26 February 2013).

models for higher education may fail due to high cost and associated debt accumulation by students, a dependence by institutions on student debt,[52] and potential limitations on what future governments may be prepared to fund and what graduates may be capable of repaying.

Consequently, a number of projects both in Australia and elsewhere have been designed to provide open educational resources. At least two universities in Australia are now openly providing their legal educational resources online and free to the public at large through iTunes U — CQUniversity and LaTrobe University. This open access approach presents several opportunities and challenges to law academics, especially those in traditional on-campus settings. Increasingly, law content and instructional material may become more readily available free of charge.[53] For law students, the quality of their education experience may become less concerned with delivered content and more concerned with the performance and quality of support provided by legal academics and other students as they solve legal problems collaboratively.

5 *The Rise of Learning Ecosystems*

Universities exist in an era of the institutional LMS, which provide the means by which content is delivered, students and academics interact and assessment is undertaken and recorded. Content provided free through public spaces such as iTunesU, YouTube and other Internet applications combined with freedom to communicate through social media makes the world of the legal academic increasingly complex. With the emergence of LMS, academics had a brief moment of thinking that they could control the sociotechnical[54] network of the classroom. Now, the world is again becoming more open, more distributed and more akin to an ecosystem in which a complex array of Internet applications may be available to students. Those students may strive to achieve and demonstrate learning outcomes using these Internet tools very differently from the way academics initially envisaged. Achieving and adequately demonstrating the learning outcomes of a subject or program of courses is what counts from a quality assurance standpoint.[55] Academics may need to provide

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[52] Flynn, above n 31, 156.

[53] For example the entire law program at CQUniversity is publicly available through iTunesU. Numerous law courses are available on iTunesU, Coursera and EdX.

[54] A modification of the organisational development term 'sociotechnical system' looking at the interaction between people (academics and students) and technology, in the context of the classroom. See E Trist and K Bamforth, 'Some social and psychological consequences of the longwall method of coal getting' (1951) 4 *Human Relations* 20

[55] See Tertiary Education Quality Standards Agency, *Information Sheet: TEQSA's Approach to Quality Assessments* (November 2012) <http://www.teqsa.gov.au/sites/default/files/TEQSAs_Approach_to_Quality_Assessments_web_121112.pdf>.

pluralistic and active learning opportunities using multimedia and collaborative approaches. These additional options may become necessary professional teaching skills for future law academics.

In a differentiated market, some universities may retain historical teaching methods, while others may strive to make the learning experience more personal in a virtual class comprising possibly thousands of students. Only a small proportion of these students may seek to submit assessment and attain accreditation.[56] The learning experience may become personalised by including optional refresher materials and optional extension materials.[57] In this scenario, the question becomes: how do universities keep track of, interact with and support so many students? Learning analytics, discussed later in this article, provides a potential solution to this issue.

B *Face-to-face Learning, e-learning and Blended Learning*

The argument as to the relative merits of e-learning and face-to-face teaching has been topical for some time.[58] In 2010 the US Department of Education released a revised report entitled *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies* examining recent experimental and quasi-experimental studies contrasting blends of online and face-to-face instruction with conventional face-to-face classes. The study concluded that blended approaches incorporating modern online learning applications, including multimedia and collaborative Internet technologies, may achieve better outcomes than purely face-to-face approaches.[59] Online learning by itself was found to be equivalent in effectiveness to conventional classroom instruction.[60] These findings would suggest Australian law schools

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[56] See for example Tucker Balch, 'Why the "Low MOOC Completion Rate" Statistic is a Bogus Argument' (24 July 2013)   http://augmentedtrader.wordpress.com/2013/07/24/why-the-low-mooc-completion-rate-statistic-is-a-bogus-argument/>; Steve Kolowich, 'Coursera Takes a Nuanced View of MOOC Dropout Rates' (8 April 2013), *Chronicle of Higher Education* <http://chronicle.com/blogs/wiredcampus/coursera-takes-a-nuanced-view-of-mooc-dropout-rates/43341>

[57] See for example Peter Norvig, 'The 100,000-student classroom' (February, 2012) TED   <http://www.ted.com/talks/peter_norvig_the_100_000_student_classroom.html>.

[58] US Department of Education, above n 1; Diana Oblinger and Brian Hawkins, 'The Myth about No Significant Difference: Using Technology Produces No Significant Difference' (2006) 41 *Educause Review* 14–16

[59] For examples of where online and multimedia applications are reported to have had positive impacts on learning see: Des Butler, 'Entry into Valhalla: Contextualising the learning of legal ethics through the use of *Second Life* Machinima' (2010) 20 *Legal Education Review* 87. See also Des Butler, 'Air Gondwana: Teaching Basic Negotiation Skills Using Multimedia' (2008) 1 *Journal of the Australasian Law Teachers Association* 14

[60] US Department of Education, above n 1, xi.

should consider incorporating e-learning as part of a blended approach to learning and teaching.

When academics explore blended learning approaches, it is possible that learning outcomes for students may improve irrespective of which delivery mode is used. It is possible, for example, that academics may learn to improve face-to-face teaching from their experiences with online learning,[61] and vice versa.

Appendix 2 focused on the use of different technology and its associated timing for teaching and learning. However, face-to-face, distance, online and blended learning assume and reflect differences in our understanding of learning, which in many ways are now merging with supporting technology.[62] These differences are reflected in the various approaches Australian law schools have adopted for legal education.

As set out above, the results of the Law Associate Dean (Learning and Teaching) survey indicate that Australian law schools are moving down the path of blended learning to varying degrees, using a variety of technologies. Results indicate that 32 law schools use an LMS, 23 use lecture capture systems, 11 use synchronous communication, 5 use e-grading, and 3 use document repositories. The subsystems within the LMS (for example discussion forums and quizzes) are used to varying degrees by law schools. Open-ended survey comments indicated that the adoption of blended learning approaches is hampered by workload implications, career priorities focused on research, commitment to existing practices, academics' lack of knowledge and skills, university policy and infrastructure, and uncertainty concerning student knowledge and skills.

Course or program innovation in the blending of e-learning into on campus activities and/or the development of fully online learning techniques is dominated by universities that cater for large percentage cohorts of external students — for example CQUniversity, CDU, Deakin, RMIT, SCU, and UNE.

While it can be the case that any learning experience may be inferior, recent studies and the Law Associate Deans (Teaching and Learning) survey suggest that e-learning, especially as part of a blended learning approach, may be better than pure face-to-face teaching.[63]

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[61] Mischelle Taylor Stone and Suzanne Perumean-Chaney, 'The Benefits of Online Teaching for Traditional Classroom Pedagogy: A Case Study for improving Face-to-Face Instruction' (2011) 7(3) *MERLOT Journal of Online Learning and Teaching* 393

[62] For example, televisions can now access the Internet, and device functionality is merging.

[63] US Department of Education, above n 1, xi. For a discussion of this topic see Diana Oblinger, above n 58.

C *Future Predictions — Learning Analytics and MOOCs*

Little mention was made in the Law Associate Dean (Teaching and Learning) survey responses, or the survey interviews, of data analytics and Massively Open Online Courses (MOOCs) despite the attention these topics have received in tertiary teaching nationally, internationally and in the media.[64]

Learning Analytics

Learning analytics is 'the measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs'.[65] Learning analytics holds the promise of knowing more about our law students as they study law. It is not science fiction that one day law students may obtain help from a digital tutor, designed to support them with the application to case law of approaches such as IRAC[66] or its many variants. Learning analytics affords the ability to monitor large numbers of students and create individual education experiences. Australian law schools are yet to explore the potential of learning analytics.

2 *Massively Open Online Courses (MOOCs)*

Learning analytics is well suited to Massively Open Online Courses (MOOCs) — courses that are online, are free, offer learning materials that may be modified, reused and distributed to others, and reach massive communities.[67]

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64 The Conversation Media Group, 'Massive Open Online Courses', *The Conversation* 4 November 2013 <http://theconversation.com/topics/massive-open-online-courses>; Jenny Mackness, Sui Fai John Mak and Roy Williams 'The ideals and reality of participating in a MOOC' (Paper presented at the 7th International Conference on Networked Learning, Aalborg, Denmark, 3–4 May 2010) <http://www.lancs.ac.uk/fss/organisations/netlc/past/nlc2010/abstracts/PDFs/Mackness.pdf>.

65 LAKI 11, Learning Analytics and Knowledge Conference (February 27–March 1, 2011, Banff, Alberta) <https://tekri.athabascau.ca/analytics/>. See also Edutech Wiki, *Learning Analytics* (22 July 2013) <http://edutechwiki.unige.ch/en/Learning_analytics>; Tanya Elias, *Learning Analytics: Definitions, Processes and Potential* (January 2011) <http://learninganalytics.net/LearningAnalyticsDefinitionsProcessesPotential.pdf>.

66 Issue, Rule, Application and Conclusion (IRAC). See Nick James and Rachael Field, *The New Lawyer* (Wiley, 2013) 267.

67 Stephen Carson and Jan Schmidt, 'Online higher education for the masses' (27th May 2012) University World News <http://www.universityworldnews.com/article.php?story=20120525135513146#.T8H2dTU44zo.mailto>. Inge de Waard, *MOOCGuide* <http://moocguide.wikispaces.com/1.+History+of+MOOC%27s>. The term MOOC is said to have been coined by two separate individuals: Bryan Alexander (http://infocult.typepad.com/infocult/2008/07/connectivism-course-draws-night-or-behold-the-mooc.html) and Dave Cormier (http://davecormier.com/edblog/2008/10/02/the-cck08-mooc-connectivism-course-14-way/) and this label was loosely posted to a course (CCK08) organised by George Siemens and Stephen Downes. See <http://davecormier.com/edblog/2008/10/02/the-cck08-mooc-connectivism-course-14-way/> 2 October 2008.

In the Australian context a MOOC based on a differentiated services model has so far been tried in a legal subject offered by uneOPEN — Rural Legal Practice.[68] While subject content is free, premium services are offered at a price. One-on-one video tutorials cost $150 per hour. Group video tutorials (minimum of four, maximum of 10 participants) cost $35 per person, per hour. A student may select a challenge exam, pay a fee of $495, pass and obtain credit, through advanced standing, in a UNE law degree.

As academics make learning resources in the study of law more publicly available, there is an opportunity for learning communities, not directly enrolled in University courses, to collaborate and learn together about aspects of the law.[69] MOOCs provide an avenue to participate informally in an online course using the open educational resources a university provides for a particular subject or course.

The Law Associate Deans (Teaching and Learning) survey and subsequent interviews revealed that the vast majority of Australian law schools have not considered undertaking MOOCs as a form of instruction or community engagement exercise. The potential for Australian law schools to embrace MOOCs is an area which warrants further research.

V Conclusion

Most Australian law schools use an LMS as part of a blended learning strategy irrespective of whether they teach on-campus or off-campus students. The primary use of the LMS is to distribute learning resources to students, and to a lesser extent to communicate with students through discussion forums or other basic tools such as announcements. Teaching predominantly consists of lectures and tutorials, although lectures may be recorded and viewed later, and PowerPoint slides and audio files distributed to students electronically. The Law Associate Deans (Learning and Teaching) survey indicates that this model of on-campus face-to-face teaching in the law curriculum is being transformed through the use of educational technology towards more active learning.

Some law schools are extending their markets (or market share) by moving to more flexible arrangements that better suit the lifestyles and requirements of their students. New online markets challenge existing academic working conditions, technology infrastructure, teaching practices and support for students. E-learning is changing legal teaching as academic staff seek to use the 'best' of both face-to-

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[68] An example of this approach is UneOPEN, *How does uneOpen work?* (2013) <https://www.uneopen.com/app/about/a_id/17>.

[69] An example of this is CQUniversity's law degree, which is publicly accessible via iTunesU.

face learning and e-learning, and explore how both approaches may be effectively blended together.

The debate as to whether face-to-face learning is better than online learning overlooks the underlying merits of teaching content and the potential for blended approaches. There is no persuasive evidence to support the proposition that any unblended approach is better than another. To the contrary, as discussed above, research suggests that both face-to-face and online strategies are equally valid and effective, with a blended combination of both having slightly better student learning outcomes. It is more important to know the conditions under which students achieve the outcomes stakeholders want them to achieve, irrespective of whether they are in a face-to-face class, e-learning, or a blend of both. The quality of education provided to students is what is important.

The landscape of Australian higher education has changed and is evolving at a disconcerting rate. Universities are looking for alternative models of teaching and learning to better suit the needs of their stakeholders. By contrast, law schools are relatively slow to adapt. The legal profession has a strong sense of individualism and conservatism. Lawyers, law academics and judges often develop their reputations on the basis of their individual performance and contributions to the profession. Conversely, law students may demand more collaborative approaches to learning. New models of teaching and learning law challenge traditional assumptions and require more collaborative and interactive approaches.

While there is some encouraging developmental work in face-to-face and e-learning throughout the sector, the Law Associate Deans (Learning and Teaching) survey indicates that e-learning practice is generally simplistic and lacking a systemic strategy of scholarship and development of teaching practices designed to move the entire law discipline forward.

The needs of the current generation of students, which has grown up not knowing a world without the Internet and social networking, may not be adequately met with current instructional designs used in many law schools. These students are accustomed to having an Internet presence, building their own social and learning groups and working in e-learning environments that profile their personal needs, push information in a form that best suits them as individuals, and are increasingly visual, interactive and collaborative in nature.

New digital learning resources that are easily shared and distributed across law schools are a start. Sharing the costs of developing these resources and the development of open access resources may become increasingly important.
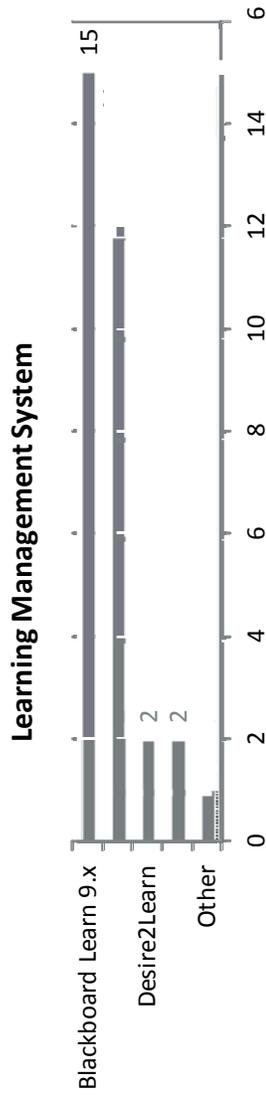
Individual creativity and innovation in teaching within law schools is evident from the Law Associate Deans (Learning and Teaching) survey. However, systemic course level change remains

relatively rare. Few law schools have signature program pedagogy or reputations for teaching excellence either in blended or on-line modes. While the teaching excellence of many individual academics is evident from the survey, it appears most law schools would benefit from greater attention to the development of educational design and digital resources across entire law teaching programs. Systematic law school wide approaches to integrating technology into teaching may be necessary for law schools to evolve beyond the basic online presence mandated by university management.
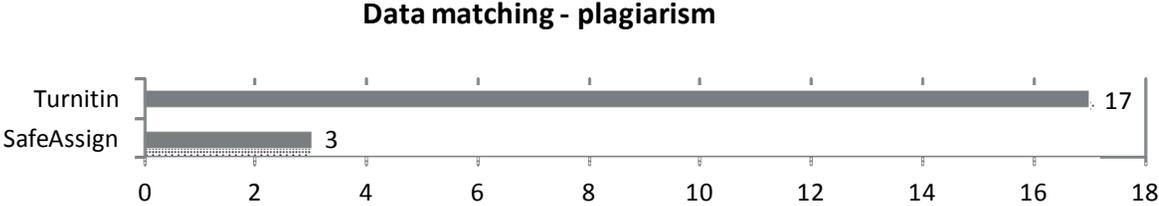
The future role of technology in law teaching remains uncertain but it is clear that e-learning is already pervasive in Australian law schools.
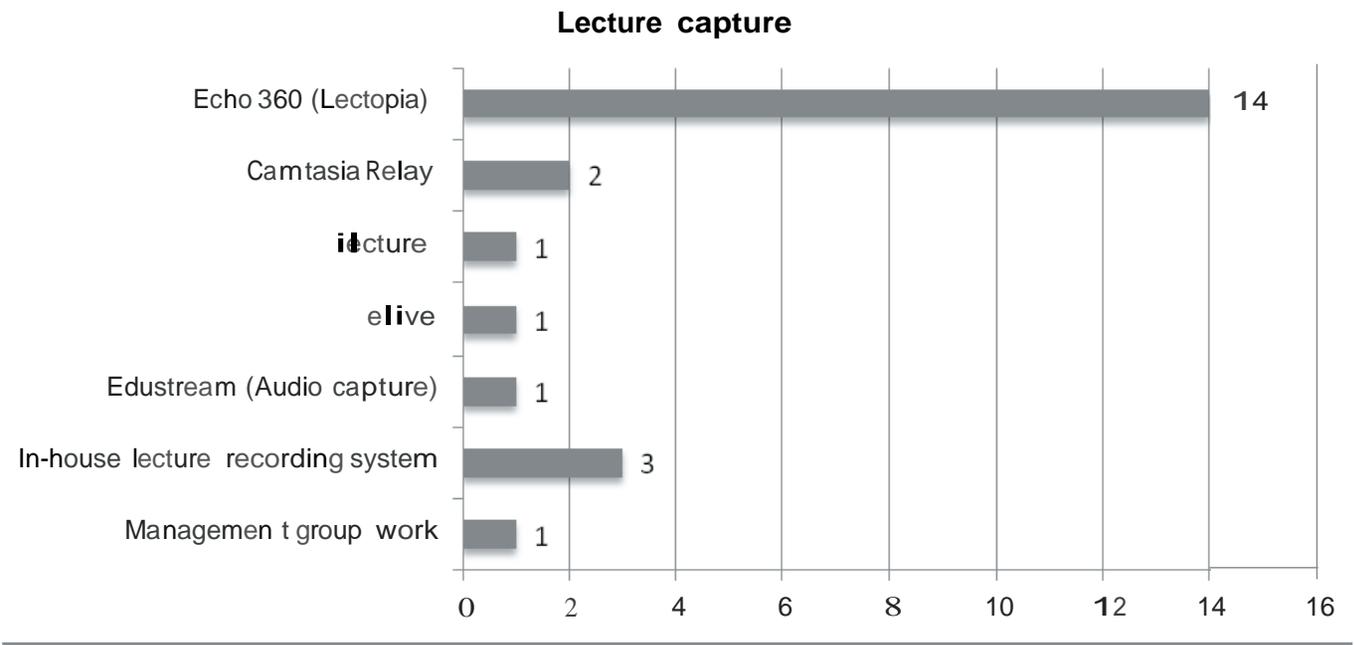
APPENDIX 1
LAW ASSOCIATE DEANS (LEARNING AND TEACHING)
SURVEY SUMMARY AND KEY FINDINGS

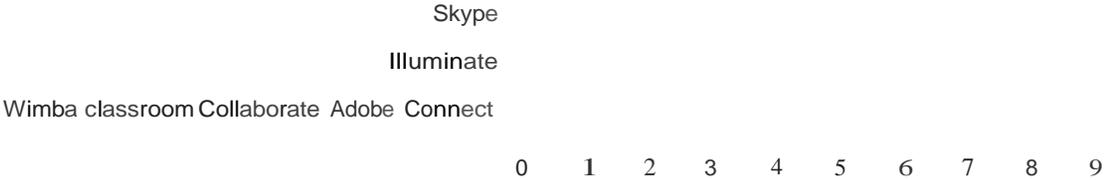What learning management system is used in your law school?

Learning Management System

What other enterprise level systems are used for teaching in your law school?

Data matching - plagiarism

Turnitin	17
SafeAssign	3

0   2   4   6   8   10   12   14   16   18

Lecture capture

Category	Value
Echo 360 (Lectopia)	14
Camtasia Relay	2
ilecture	1
elive	1
Edustream (Audio capture)	1
In-house lecture recording system	3
Managemen t group work	1

0　2　4　6　8　10　12　14　16

Synchronous communication

Skype

Illuminate

Wimba classroom Collaborate Adobe Connect

0   1   2   3   4   5   6   7   8   9

e-Grading

ReMarksPDF

e_grading Blackboard

Grademark

0   0.5   1   1.5   2   2.5

Document repositories

Inhouse document / website repository

Sharepoin t for virtual placments

in-house e-1ibrary

0   0.2   0.4   0.6   0.8   1   1.2

Miscellaneous

e_Portfolios - in house

Animation- Anime Studio Pro

Online quiz - Respondus

Audience Response systems - Votepedia

Self assessment - Re:View
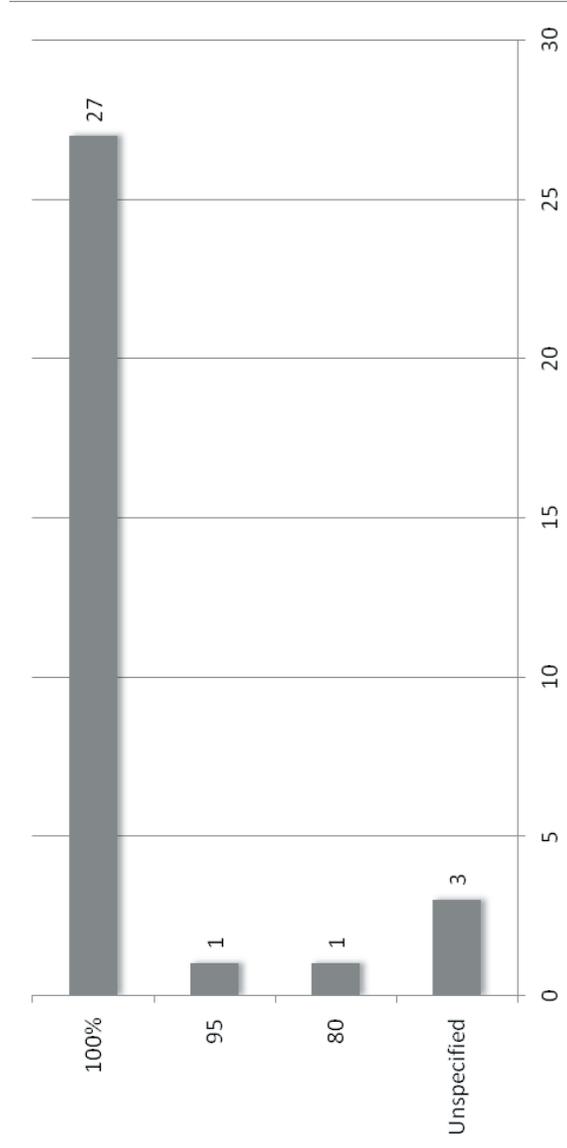
Peer assessment - iPeer

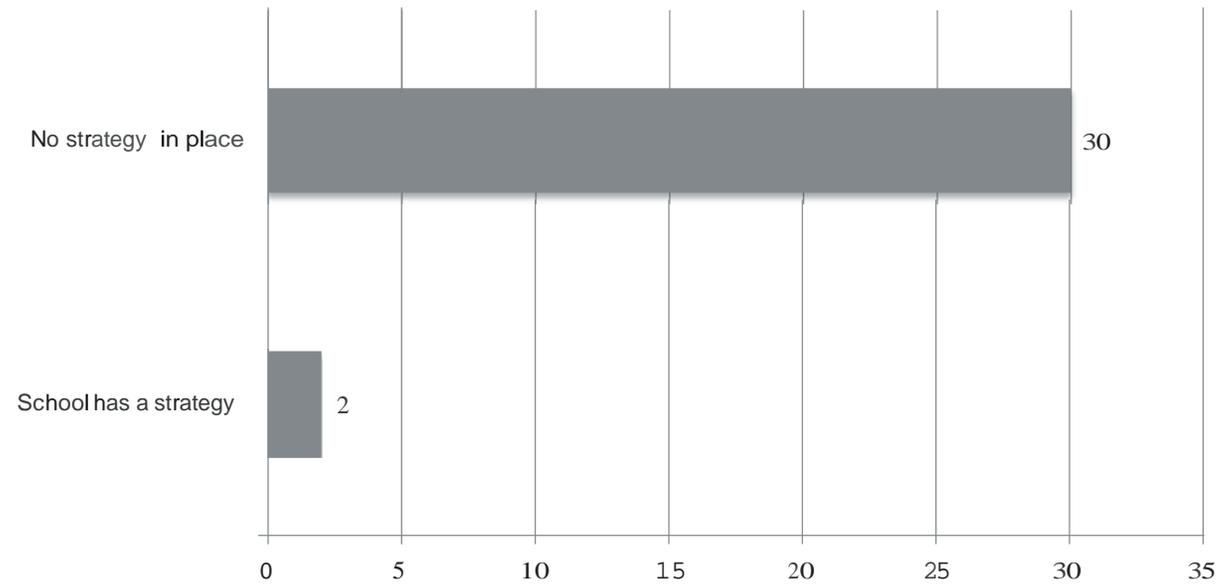Online world - Secondlife

Offline lecture recording - Camtasia

0   1   2   3   4   5   6   7

What proportions of staff make use of the LMS in their teaching?

What features of the LMS are commonly used in teaching?

Feature	Count
Discussion forums	21
Assignment submission, tests, quiz, surveys	16
Distribution of learning materials	12
Study guide, course outline	12
Announcements	6
Audio recordings of lectures	6
Video recordings of lectures	5
Blogs	1
Online tutorials	1
Management group work	1

Have any strategies for mobile teaming been initiated?

No strategy in place	30
School has a strategy	2

0   5   10   15   20   25   30   35

Does the school or university have any policy or strategy for on-line teaming? [May I have a copy or reference to this policy or strategy]
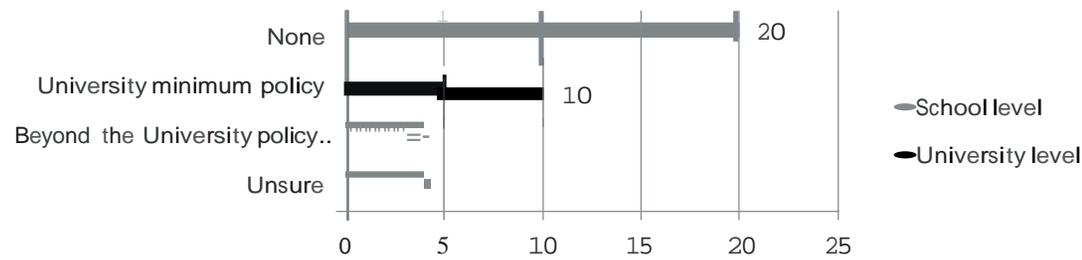
What impediments exist within your school from adopting mixed mode delivery including on-line learning?
Responses may be grouped under the following headings:

Workload Implications
> The primary impediments are human capital — staff face very heavy workloads (14 hours contact on average) and it is difficult to find the time to introduce electronic teaching methods or to train staff in the systems.
> Staff 'buy in' often with anxieties of increased workload. Lack of human capital — very heavy workloads. Size of the student cohort makes online education unmanageable — email and discussion boards have serious workload implications. Limited time to develop or redevelop quality online resources/ product.

Career Priorities
> Pressure to focus on research outputs rather than teaching. Money and career is built on research.
> Good online instruction demands considerable time commitment not always recognised in institutional workload models. There are both perceived and real workload issues.

Commitment to existing practices
> Most difficult is the 'mind share' — with contestability, budgetary crises, declining ATARs and other issues, I understand that it can be difficult to find the brain space to care about these issues and to focus on re-skilling and re-orienting teaching practice. While we have to be careful about being ageist, the number of late-career academics, the failure of universities to renew staffing, can contribute to a certain reluctance to try new teaching methods or to engage with the future. While not all baby-boom generation academics are hostile to technology (we have to admit many are), there is a real need for digital natives to join staff who understand the way that today's students engage with knowledge and relate to each other through networks.
> Lack of skills and training.
> Conservatism — not seen as a need or desirable.
> Reluctance to teach online (either in blended mode or fully online).
> Reluctance to move from a traditional delivery culture.
> Tension between online learning and technology versus a reduction in attendance at lectures
> Significant change management issues and resistance.
> Face-to-face is the expected model. There is a pedagogical view that the traditional lecture model is superior. The culture is against

technology. The mission is an integrated clinical education with an emphasis on face-to-face in class learning.

Law Academics knowledge and skills

Some staff have a resistance to change dependent on age — the older they are the more resistant. Older colleagues do not use technology.

Staff are set in their ways and time poor. Tradition is a barrier.

Varying levels of competence using new technologies.

Varying levels of competence in teaching using the new technologies.

Lack of skills in instructional design.

Lack of understanding of what is effective online teaching and learning.

We lack the pedagogy and don't know how to use it. We have no background in online learning on what works and what does not work. We are not aware of the affordances.

- Staff resistance to new technology.

University policy and infrastructure

No major driver or champion.

Official approval processes for changes in units is too long. The effectiveness and stability of the relevant technology. Practical support provided at the School level – few if any School support staff and/or integrators.

University policy restricts exploration and development of online/ blended practices e.g. online assessment.

Lack of technology resources.

Limited pedagogical advice/support often centrally located hub and spoke models are ineffective. Support is needed in the School.

Competing demands on limited resources.

Student knowledge and skills

What we may reasonably expect from our students in terms of access to technology and the Internet — e.g. mature age students with no prior tertiary experience, with little or no computer skills in regional and remote locations with limited Internet access and bandwidth.

APPENDIX 2

TEACHING ACTIVITY TIME DIFFERENTIALS

Teaching activity	Asynchronous	Synchronous
Content delivery	Text/Print/Books Radio Television Vodcasts/Video Adobe Presenter[70] Techsmith Camtasia[71] PDF and ePub iBook (iBook Author)[72] Animation YouTube[73] RSS feeds[74] Podcasts Garageband[75]	Lecture Echo 360[76] Tutorial/Seminar Chat (Text) Video conferencing Adobe Connect[77] Blackboard Collaborate[78] Skype[79] Zoom.us

[70] See <http://www.adobe.com/au/products/presenter.html>.
[71] See <http://www.techsmith.com/camtasia.html>.
[72] See <http://www.apple.com/au/ibooks-author/>.
[73] See <http://www.youtube.com>.
[74] See <http://www.whatisrss.com>.
[75] See <http://www.apple.com/au/ilife/garageband/>.
[76] See <http://echo360.com>.
[77] See <http://www.adobe.com/au/products/adobeconnect/elearning.html>.
[78] See <https://www.blackboard.com/platforms/collaborate/overview.aspx>.
[79] See <http://www.skype.com/en/>.

Teaching activity	Asynchronous	Synchronous
Collaboration and group work	Discussion boards Google Drive[80] Wiki[81] Blog[82]	Audio conferencing Telephone Skype Video conferencing Adobe Connect Blackboard Collaborate Skype Zoom.us FaceTime[83] Kaltura[84] WebEx[85] Online worlds Second life[86] Collaborative drafting Google Drive[87] Quip[88]

Interaction	Animation/simulations
	Twitter[89]
		Audience Response Systems:
		  TurningPoint[90]
		  Responseware[91]
		Moot courts/ Electronic Moot Courts

Social media	Facebook[92] YouTube Linkedin[93] Twitter	Chat

[80]   See <https://drive.google.com/>.
[81]   See <http://wiki.org/wiki.cgi?WhatIsWiki>.
[82]   See <http://www.problogger.net/archives/2005/02/05/what-is-a-blog/>.
[83]   See <http://www.apple.com/au/mac/facetime/>.
[84]   See <http://corp.kaltura.com>.
[85]   See <http://www.webex.com.au/>.
[86]   See <http://secondlife.com>.
[87]   See <https://support.google.com/drive/answer/2424384?hl=en>.
[88]   See <https://quip.com/>.
[89]   See <https://twitter.com>.
[90]   See <http://www.keepad.com/Products/TurningPoint/>.
[91]   See <http://www.turningtechnologies.com/response-solutions/responseware>.
[92]   See <https://www.facebook.com>.
[93]   See <https://www.linkedin.com>.

Teaching activity	Asynchronous	Synchronous
Reflective journal	LMS discussion thread Blogs Wiki	
e-Portfolios	Pebblepad[94] Mahara[95]	
Data repositories	iTunesU Library databases Digital theses repositories Google Drive Dropbox[96]	
Data-matching and plagiarism issues	Turnitin[97] Urkund[98] SafeAssign[99]	
e-Grading	ReMarksPDF[100] GradeMark[101] LMS Blackboard[102] Moodle[103] Desire2Learn[104] Weblearn[105]	

[94] See <http://www.pebblepad.com.au/faqs.asp>.
[95] See <https://mahara.org>.
[96] See <https://www.dropbox.com>.
[97] See <http://www.turnitin.com>.
[98] See <http://urkund.com>.
[99] See <http://www.safeassign.com>.
[100] See <http://www.remarkspdf.com/>.
[101] See <http://turnitin.com/en_us/features/grademark>.
[102] See <https://www.blackboard.com>.
[103] See <https://moodle.org>.
[104] See <http://www.desire2learn.com>.
[105] See <https://weblearn.ox.ac.uk/portal>.