

Shared space: regulation, technology and legal education in a global context

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ABSTRACT

The LETR Report on legal services education and training (LSET), published in June 2013, is the most recent of a series of reports dealing with legal education in England and Wales. Earlier reports do not deal directly with technology theory and use in legal education, though the use of technology has increased exponentially in recent decades in all areas of social activity, not just in legal education and the administration of justice. LETR does deal with technology use and theory, however, and its position is comparable with at least two reports from other jurisdictions internationally, with the findings of two large-scale projects in legal education and has parallels with the regulation of the quality of legal education in another jurisdiction in these isles.

In this article I set out that position and contrast it with regulatory positions and statements on technology and legal education in England and Wales going back to the 1971 Ormrod Report. Based on a review not just of technological implementations but of the theoretical educational and regulatory literatures, I shall argue that the concept of multi-modal regulation and 'shared space' outlined in the Report is a valuable tool for the development of technology in education and for the direction of educational theory, but particularly for the development of regulation of technology in legal education at every level.

KEYWORDS

LETR, regulation, legal education, digital technology, shared space, multi-modal regulation.

INTRODUCTION

The Legal Education and Training Review (LETR) was a review of legal services education and training (LSET), which consulted in the period 2011-2013, and published its report in June 2013¹. It was instructed by the front-line regulators in England and Wales, the Solicitors Regulation Authority (SRA), the Bar Standards Board (BSB) and ILEX Professional Standards (IPS), and is the first phase of a larger review of the structure and content of professional legal services education and training in England and Wales.² The remit of the Report team was extensive, including a substantial literature review (290pp in nine chapters), and was intended to assist the regulators in developing legal services education and training policy and practice by:

1. assessing the perceived strengths and weaknesses of the existing systems of legal education and training across the regulated and unregulated sectors in England and Wales;
2. identifying the skills, knowledge and attributes required by a range of legal service providers currently and in the future;

¹ The author was a member of the LETR research team, which also comprised Professors Jane Ching, Avrom Sherr and Julian Webb (project lead). This article, however, is the author's personal view of aspects of our research, its reception and events subsequent to the publishing of the LETR report in June 2013. It therefore represents neither the collective views of the LETR research team nor those of the regulators involved in commissioning the research.

² For information on SRA, see <http://www.sra.org.uk>; for BSB, <http://www.sra.org.uk> and for IPS see http://www.cilex.org.uk/ips/ips_home.aspx.

3. assessing the potential to move to sector-wide outcomes for legal services education and training;
4. assessing the potential extension of regulation of legal services education and training for the currently unregulated sector;
5. making recommendations as to whether and, if so, how, the system of legal services education and training in England and Wales may be made more responsive to emerging needs;
6. including suggestions and alternative models to assure that the system will support the delivery of:
 - a. high quality, competitive and ethical legal services;
 - b. flexible education and training options, responsive to the need for different career pathways, and capable of promoting diversity. (LETR, 2)

Though focused on LSET, the remit was, paradoxically, wider than any previous legal education review conducted in any of the jurisdictions of these isles. There were several reasons why this was so. First the remit dealt not just with educational content common to all earlier reports) or with assessment (one of the key issues in the Training Framework Reports) but with the nature of educational regulation itself. Regulation was hardly ever a topic for earlier reports: it was assumed that legal education would be regulated by already-existing bodies in the historical environment that had developed over decades; and regulatory action and culture were rarely questioned.³ LETR's terms of reference put regulation firmly on the table as a subject for analysis, comment and consultation.⁴ Second, the topics were framed broadly. Under topic 5 above, for instance, we had to define and explore terms such as 'the system of legal services education and training'. Was there one system? What was 'systematic' about it? Did it make sense to extract it and consider apart from other systems? What about the unregulated sectors? Another example is the phrase 'emerging needs' – what were these? How were they emerging, how fast were they emerging, and how permanent would their effects be on the landscape of legal education?

These questions and the evidence base that LETR gathered on these questions affected the responses to topics 5 and 6 above. For if the regulatory drive of the Legal Services Act and other associated legislation is to create a liberalised market, where competition is a key driver and where consumer interest is a priority, a fundamental question for LETR was how that affected legal education. In what sense could legal education be 'liberalised'? Should competition always be a key driver, for regulators, providers, students? What part should consumer interest play in legal education? As a result, we advocated an approach to regulatory reform known as meta-regulation or multi-modal regulation (Scott 2012), and in particular (given the proclivities of regulators to regulate only their own particular silos – their personnel, programmes, providers, cultures, jurisdictions) the concept of 'shared space' –

a community of educators, regulators, policy-makers and professionals working in provision of legal services, drawing information from other jurisdictions, other professions and other regulators to identify best practices in LSET and its regulation (LETR, 268).⁵

³ Though it could be argued that many of the sometimes rancorous debates in the professional press of the 1960s and 1970s stemmed from a lack of meta-regulatory debate – something not addressed by subsequent reports until LETR.

⁴ In that sense the words of our title were carefully chosen: 'Setting Standards' applied not just to educational standards, but to regulation standards as well, which at least one commentator has noted (Leighton 2014).

⁵ This concept was developed in much more detail in Chapter 3 of the Literature Review, and its applicability to the interface between legal education and technology is outlined below in the section 'Regulation, shared space and innovating technology'.

As a result, we were compelled to think rigorously about our project methodologies – again, something upon which almost every earlier legal education report in England & Wales is silent. Our approaches were set out in the 19 pages of Appendix D of the Report. We adopted a ‘problem-based’ approach, whereby we took an iterative approach to the analysis of legal education, one that used ‘the methods of thematic inquiry [...] to ground a process of collective learning and collaborative problem-solving within the Report’s remit. In more detail,

This three-stage process builds up a picture of the problem, including potential solutions to the problem, then identifies and addresses critical information gaps, before developing the actual solution(s) to the problem collaboratively with stakeholders. (1.18)

We drew this up in a table that set out our approach to LSET reform as a “socially complex” problem’ (Table 1.1):

Characteristics of socially complex problems	Corresponding features of LSET (eg)
There is no definitive definition of the problem	Some agreement over a need for reform, but widespread disagreement over the extent, priorities and nature of the changes required
They tend to be intractable	General lack of effect from a number of recent education and training reviews Specific intractable problems: Achieving consistency of standards Reducing costs of training Managing increasing numbers
The information needed to make sense of the problem is often ill-defined, changing and may be difficult to put into use	Currently operating in rapidly changing work and educational environments Relative lack of robust, especially longitudinal, data Costs of deriving meaningful information are relatively high
They emerge in fields where there are multiple stakeholders; limited consensus as to who the legitimate stakeholders and/or problem-solvers are, and stakeholders are likely to have different criteria of success	Large number of stakeholders, with different understandings of the problem(s), and different levels of engagement with the process Legitimacy questions exist, eg, over the extent of professional and regulatory interest in the Bachelor of Laws (LLB) Evidence of different stakeholders having different ‘objectives’ for the review
Every attempt at a solution matters significantly	Reform tends to be a ‘one-shot’ operation so relatively high risk Exacerbated by uncertainties about the new regulatory environment, and the tendency of the LSET system to operate as a relatively low trust environment

Table 1: LETR Table 1.1.

In this table, I would argue that the features of LSET described in the right-hand column are strikingly applicable to the situation of technology and innovation in legal education. Each of the rows holds true for the subject. For example it is often commented upon that technology constantly changes, not just because of the effects of Moore’s Law, but also because of the complex nature of educational problems and their constantly evolving social

and professional matrices.⁶ In turn, these problems are exacerbated by the shape of reform initiatives – frequently one-shot operations whose sustainability is often seriously inhibited by uncertainty as to the future shape of technology in education, together with low trust among regulators, providers and other stakeholders.

For the purposes of this article I shall focus on the effects of row four ('Large number of stakeholders' etc). I shall argue that regulation of technology and innovation takes place in fields where 'there are multiple stakeholders; limited consensus as to who the legitimate stakeholders and/or problem-solvers are, and stakeholders are likely to have different criteria of success'; and that these are complex regulatory issues that are central to the need for regulation and the way that regulation is carried out, and therefore require to be the focus not just for regulators, but for all stakeholders in the field.

Finally, and this is an integral part of our methodology too, a report as large and as complex as LETR cannot be read off from a series of Recommendations. If the problems of legal education across England and Wales are socially complex, and their solutions are too and require creative and imaginative solutions, so too does our report require creative and imaginative reading. Not all the themes and memes can be explicitly identified; there are many that exist as implicit links, bridges, correlations, analogies, synecdoches, and I shall explore some of these in this article.

I shall start with an overview of the treatment of innovation and technology in prior legal education reviews, before examining briefly the approaches taken in another jurisdiction before discussing the approach taken by LETR in some detail; and then draw theoretical and practical conclusions.

UNDERSTANDING TECHNOLOGIES: LEGAL EDUCATION REPORTS PRIOR TO LETR

Ormrod and Marre Reports

Even a brief overview of the Ormrod Report (Committee on Legal Education [henceforth Ormrod] 1971) and Marre Report (Committee on the Future of Legal Education [henceforth Marre] 1988) as well as the later and more comprehensive ACLEC Report (Lord Chancellor's Lord Chancellor's Advisory Committee on Legal Education [henceforth ACLEC] 1996), together with the BILETA Inquiry will give a sense of prior work on the area.⁷ Ormrod has almost nothing to say about technology *per se*, which is interesting in itself. If a report can be said to have an authorial voice, that of Ormrod was conciliation, attempting to bring together a educational system that was in danger of fissuring; and one can only understand how necessary that was by reading what the Ormrod Committee was reacting to – contemporary articles in the Law Society Gazette and other public statements on legal education in the 1960s, and the worsening, at times acid, relationship between academy and profession. Post-Ormrod, the situation deteriorated, as pointed out by Wilson and

⁶ Moore's law states that the number of transistors on integrated circuits will grow exponentially. The rate of transistors has doubled every year since Gordon Moore first made his prediction. While it has slowed recently, the rate of data density has actually doubled approximately every 18 months. For Moore's original paper, titled 'Cramming more components onto integrated circuits', see <ftp://download.intel.com/research/silicon/moorespaper.pdf>.

⁷ The Lord Chancellor's Advisory Committee on Legal Education and Conduct (ACLEC) was an advisory board established by the Courts and Legal Services Act 1990. ACLEC'S role was largely defined as being concerned with 'the maintenance and development of standards in the education, training and conduct of those offering legal services'. During its relatively short life (in 1999 it was stood down and replaced by the Legal Services Consultative Panel) it issued two consultation papers (1994) and two reports in 1995, it issued its main work, the *First Report on Legal Education and Training*, and another on CPD for solicitors and barristers.

Ormrod himself; and academic voices that may have told of what was happening in detail within legal education in Higher Education (HE) were relatively ignored.⁸ The report was something of a contrast, too, to the earlier Robbins Report on HE, with its eloquent vision of a new higher education landscape, which Ormrod did not match.⁹ Caught as Ormrod was between a constraining, tentative remit and the double-bind of academy & profession, wider vision about the scope and purpose of legal education was always going to be problematic.

If the report deals hardly at all with technology, it could be argued that since the digital revolution had not really started, Ormrod could hardly be blamed for omitting it. But other technologies were becoming available – radio and television, for example. In 1969 the BBC started to produce OU programmes for TV (BBC2) and Radios 3 and 4 that were broadcast in December 1971, outside peak listening and viewing times.¹⁰ The introduction of video-recording technologies in the 1980s made it easier for students to study with the programmes, which had significant effects on the way that OU curricula were designed. None of the programmes dealt with law or legal studies, however, though the technology could have been easily applied.

The possibility of technological innovation being influential at a deep level on legal education does not seem to have occurred to members of the early report committees. In part this stemmed from their backgrounds: none of them was trained in education or in professional education (on Ormrod Professor Sir David Williams, though a distinguished Cambridge legal scholar, was not an educational specialist). The same is broadly true of the composition of the Marre Committee. Nor could it be said of the reports *post*-Ormrod that they were constrained by terms of reference. The remit of the Marre Committee, for instance, was widely drafted and on legal education required the Committee to ‘identify those areas where changes in the present education of the legal profession, and in the structure and practices of the profession, might be in the public interest’ and, with regard to this requirement, to ‘consult both inside and outside the profession as thought fit’ (Marre 1988, 3). The problem lay in how the remit was interpreted by the Committee members. From its absence one can assume that technology was simply not part of a recognizable legal educational landscape worthy of gaze and analysis.

If Marre committee members had looked beyond the shores of England and Wales towards the USA, however, the Committee would have encountered what is probably the first use of digital technologies in the classroom, in Chicago-Kent Law School, in 1983. The law school installed two networks or ‘computer labs’ as they became known, and from 1984-86 conducted a detailed study, with IBM, in the law school’s newly-formed Centre for Law and Computers, of the effect that digital technologies were having on student performance (Matasar and Shields 1995; see also Staudt 1987). Several years later, in 1988, at the time the Marre Report was published, a company called Mead Data Central provided the law school with 500 LEXIS passwords to initiate a study of ‘pervasive and unlimited LEXIS/NEXIS access on legal education’ (Matasar and Shields 1995, 914). After a review of the (very successful) project, Mead undertook to distribute 110,000 student passwords for their software nationwide, and the first major roll-out began of database use in legal education

⁸ See Wilson 1973, quoted in Cownie and Cocks 2009, 133: ‘As the one surviving member of Ormrod who still has an indirect connection with its successor, I must say I am appalled by the way things have developed over the last eighteen months and I fear all the ground we gained on Ormrod has been lost’.

⁹ The tone and content of Robbins was well described by Collini (2012).

¹⁰ See <http://www.open.ac.uk/researchprojects/historyofou/story/small-screen-heroes-the-ou-and-the-bbc>, and Bates (1988).

that continues, globally, to this day. On the strength of this and similar projects, Chicago-Kent Law School defined their role as a school that specialized in technology in legal education, as well as bringing technological innovation to practising attorneys (for example, via the TECHSHOW/PC Strategies for Lawyers annual conference, and their collaboration with CALI on Access to Justice projects¹¹). Nor did their research role diminish: each year the law school conducted an annual survey of computer technologies in use by the 500 largest law firms in the USA. In addition to this initiative, a number of conferences sprang up to support the emerging field – for example the international series of Substantive Technology in Law Schools (SUBTECH) Conferences (Jones 1993)

There is one more reason why the earlier reports did not treat technology as a subject worthy of analysis in their report findings. The reports seem to understand legal education as purely a matter of legal content, describing what was primarily a complex social educational system as if it were a legal system comprising rules, personnel, actions. Indeed when one compares the earlier reports, Ormrod, Benson and Marre, to the then current educational debates around education in schools, HE and elsewhere, the thinness of the reports' depth of educational knowledge becomes apparent.¹² They took no part in any of the educational debates of their day, and yet they dealt with matters intimately part of the academic domain, and this accounts in part for academic frustration at the reports' contents. Academics and the academic bodies such as SPTL did not, for their part, engage sufficiently with the reports, leaving that to the professional bodies, thus forfeiting the field to the profession's bodies (this changed, as we shall see, with ACLEC). In this sense, the reports' treatment of technology is a microcosm of the larger uninterest displayed by much (though certainly not all) of the profession in educational theory and wider educational practice.

The BILETA Inquiries, 1-3

Between the Marre and ACLEC Reports there appeared the first of three specialist reports on technology and legal education in 1991, namely the Inquiry into the Provision of Information Technology in UK Law Schools (sometimes referred to as the Jackson Report, after its Chair, Bernard Jackson). The reports were unique in that the first two attempted to gather data and write a UK narrative of current law school use of technology – a task not undertaken in any other jurisdiction until then. After reviewing data from 30 university law schools, 18 polytechnics and the profession, in its Executive Summary the first Report concluded there was a growing expectation that law graduates would have operating knowledge of and skills in IT, and defined those skills as being largely those of legal research and the operating of office equipment. Furthermore,

the Committee advocates the view that the skills associated with the new technology are of such importance that proficiency in this field must now be viewed as an integral element in the education and skills development of all undergraduate and postgraduate lawyers [...] regardless of the means (BILETA 1991, 45)

The BILETA Committee set a range of minimum input standards for the development of hardware and software in law schools, in part as a political gesture to enable law schools to negotiate budgets within their institutions – standards that included ratio of computers to students, the uses of dedicated computing labs and support staff. The Committee recommended a brief mandatory course for all undergraduate law students that would be skills-based, with little in the way of theory, the emphasis being on practical aptitudes

¹¹ See <https://www.kentlaw.iit.edu/institutes-centers/center-for-access-to-justice-and-technology>.

¹² For example, the progressive educational debates in the 1970s, the HE massification debates, the gradual internationalization of legal education, the increasing regulatory interventions into HE, and much else.

relevant to both academic and professional studies. The skills involved general information technology skills (use of operating systems such as DOS and Windows), legally specific information technology skills (use of LEXIS and databases on CD-ROMs, and computer-assisted learning [CAL]), and IT law (including IP rights, data protection and the like). While eminently sensible, the problem with this approach was that it tended to de-theorize the whole emerging discipline of law, technology and education, relegating education to training in tool manipulation. And although these were seen as minimum standards only, the recommendations arguably did not support those who wished to think more creatively and interdisciplinarily about the relationships between law, education and technology.

The Second BILETA Report (1996) updated the first, making comment on curricular integration. The Third Report, followed the same theme of integration, as Maharg noted in his BILETA Chair's Report for 2004. Initial work on a pilot for the Third Report threw up a number of significant issues, however, and it became clear that the format and content of previous reports would not be suitable on account of the changes that had occurred in both ICT and legal education since the publication of the Second Report, in July 1996. In particular, it became clear from discussions and soundings taken elsewhere, that use of IT had become much more embedded in Law School practice (teaching, administration, and student use), and that it was more appropriate now to consider ICT within the context of wider changes taking place within UK law schools.¹³ Coincidentally, the BILETA Executive learned that there would soon be a second version of the Legal Education Research Group (LERG) Survey of Law Schools. The Executive were faced with a dilemma: whether to create their own questionnaire and research methodology, or to join forces with the LERG Survey, who were happy to consider the addition of an ICT section to their questionnaire. It was decided to merge the two reports. A member of the BILETA Executive piloted a questionnaire and after revisions, the questions were then passed to the LERG group, and were incorporated as a new, final section in the questionnaire dealing with ICT issues in law schools.¹⁴

In summary, then, the BILETA reports were largely surveys of IT use within law schools. While they publicised the technology's role and the gradual development of those roles, they had little to say about the application of educational theory, the construction of new theory within legal education, or the forms of regulation appropriate to the new context of learning and teaching. Their value to law schools and to bodies such as SLS, ALT and others was significant at the time for they clarified which technologies were used to which purposes. They also revealed the gradual process of convergence within law schools – of stand-alone software applications such as IOLIS within programmes of study, of the rise of applications such as Learning Management Systems (LMSs), and the general use of IT to support administrative and financial functions within law schools and universities generally.

ACLEC Report 1996

The ACLEC Report was perhaps the first major report in England and Wales on legal education to take seriously the role of technology. It was the first to gather and use substantial field data on education (as opposed to the citation of largely administrative data by earlier reports, with little in the way of educational comment). In the field of technology it made use of the First and Second BILETA Reports, and cited theoretical overviews such as

¹³ Persuasive evidence of this included the Report on the Virtual Learning Environments (VLE) Project, funded by the UK Centre for Legal Education at Warwick, and summarized in UKCLE's *Directions* journal, 2007, 1, at http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2007_1/vle_report/#sdendnote5sym

¹⁴ Information on the development of the Third BILETA Report is abstracted from the BILETA Chair's Report 2004, on file with the author.

Abel on legal professionalism (1988), Peter Clinch's work on law libraries (Clinch 1994), and took account of the detailed fieldwork undertaken by Harris et al (1993; see also Harris and Jones 1996).¹⁵ Linking all this with what the report authors saw as 'significant advances in the incorporation of new technology into legal practice and the wider legal system', the report argued *inter alia* that the profession itself needed to educate itself about the role of technology in legal practice, and that 'if the legal profession is to meet the threat to its traditional markets posed by [...] other sectors, it must itself be educated and trained in the wider applications of technology for the purposes of knowledge-manipulation, practice management and quality control of services, and product analysis and development' (ACLEC 1996, 15). The use of information technology was included as a 'general transferable intellectual skill' in the Report's illustrative statement of outcomes in the Annexure to the Report (1996, 59); and technology was stipulated as a significant 'input' into the structure of degree programmes of study, along with library provision and buildings. The Report authors recommended that clear guidelines should be set for the provision of information technologies (1996, 85), noting the work that had already been undertaken on this by the Second BILETA Report.

Given the lack of educational thinking in the earlier legal education reports I have noted above, and the lack of educational experience in their Committee members, it is no surprise that ACLEC set about to change this. The members of ACLEC were drawn from wider constituencies, including the Lord Chancellor's Advisory Committee and academics expert in legal education. Their research took in study visits to New York, Leiden and the then European Court of Justice as well as liaising with educators and practitioners in Australia, Japan and Canada. Their vision described an education for democracy, to which legal educational standards were specifically linked (eg the report's advocacy for pro bono services).¹⁶ All this contributed to ACLEC's more sophisticated concept of both educational standards and regulation of those standards.

And yet from the point of view of technology, and particularly the digital revolution, ACLEC had little to say that was integrative of technology and legal education. There is in the report an emphasis on the insertion of skills into curricula, and the Report noted that knowledge of technology was becoming increasingly important for professional practice. But for all its interdisciplinary thinking about education, there is little in the way of an overview of research on learning technologies in ACLEC. There had been international conferences since the late 1980s on hypertext and its multiple uses; and in the decade to the publication of the ACLEC report there were numerous technical advances.¹⁷ Indeed some of the core components of WWW had been in existence since the 1960s, for instance the practice of packet-switching, and of protocols such as TCP/IP.¹⁸

¹⁵ The CTI Law Technology Centre at Warwick University Law School provided much of the information on law school technology for Harris and Jones's 1996 study. Clinch's research was part of the general drive by professional bodies such as the Society of Public Teachers of Law (SPTL, now Society of Legal Scholars, SLS) and the British and Irish Association of Law Librarians (BIALL) to analyse and describe the changing nature of library research, its transformation into information science, including the reception of technology within law libraries, and the effects of technologies for students, staff and libraries. See, eg, Jackson (2001).

¹⁶ Thus in the first section of the report the Committee noted that the ethical challenge was to go beyond client-based services (arguably the main focus of earlier reports) to 'wider social and political obligations', for instance the protection of the rights of minorities (ACLEC 1996, 15-16).

¹⁷ See The Association for Computing Machinery (ACM) Hypertext Conference Archive at <http://www.sigweb.org/resources/ht-archive>. The conference series began in 1987, before Robert Cailliau and Tim Berners-Lee invented the WWW at CERN in 1990.

¹⁸ Packet-switching involves lengthy strings of data being broken down into smaller 'packets' and sent in any order before being re-assembled at point of arrival. Central to this concept is another core practice, the

Taking a broad view of internet technologies, a consideration of both theories and practices inevitably involves reading the anthropological and sociological literatures that grew up around them, which in turn begins to give a sense of the huge potential for change, not just in legal education but in almost every aspect of legal activity.¹⁹ As Tim Berners-Lee put it in a justly-celebrated passage, the concept of the world-wide web encompassed

the decentralised organic growth of ideas, technology and society. The vision I have for the Web is about anything being connected with anything. It is a vision that provides us with new freedoms, and allows us to grow faster than we could when we were fettered by hierarchical classification systems into which we bound ourselves. (Berners-Lee 2000, 1)

And as the web spawned multiple manifestations of such connectivity, anthropologists and ethnomethodologists such as Lucy Suchman (2006, first edition 1987) were already sketching an ethnomethodology, derived from Mead, Garfinkel and others, for our understanding of human and machine intelligence, and in human-computer interfaces that would have profound consequences for the development of research into games, e-learning, virtual reality and much else. Suchman's work was influential on a whole generation of educators and researchers interested in the use and effects of technology (eg Streibel 1989, Hine 2000, Boellstorff 2008, Peachey et al 2010).²⁰ Earlier, Sherry Turkle's *The Second Self* (2005, first edition 1984, and referenced by Suchman) rejects the simplistic notion that a computer is a tool to help us produce documents or calculations. Instead she posited the idea that digital machines change not only what we do but in a much more sophisticated context, how we think, feel, remember, understand. On a broader treatment of technology, by ACLEC's report in 1996, it was clear that the emerging internet was to become a major factor in digital technology development; but there is curiously little said in the Report about these changes.²¹

What any account of legal education required was an understanding of what digitization was doing to immense sectors of society, whole industries, ways of working, types of employment, including law. To an extent, the ACLEC Report acknowledged this. There is reference to the extent of digital innovation in the legal sector contrasted to other sectors, for instance. Yet throughout, the report sectorises legal education into separate inputs – legal skills, library resources, academic content, professional content, technology as a knowledge of PC technology and its application in the legal profession. There is little of an understanding of the social, cultural and educational meta-issues that one meets in the work of Suchman or Turkle, for example.

Given all this, the absence of a sense of integration or convergence between technology and education is interesting. Such a sense is paradoxical of course: digitisation is nothing if not

decentralization of the internet, with no centralized controlling hub such as existed in early telephone exchanges (Gillies and Cailliau 2000).

¹⁹ The literature is huge: a very few representative texts might include Ted Nelson on Xanadu (Nelson 1999), Engelbart (1995), Brown and Duguid (2000), Benkler (2007); and academic projects such as Woolgar (2002), as well as contrarian thinking such as Brabazon (2002) and the later Turkle (2013).

²⁰ And note the reference in Boellstorff's title, *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human* to Margaret Mead's famous anthropological study, *Coming of Age in Samoa: A Psychological Study of Primitive Youth for Western Civilisation*, where the subtitles after the caesura of the colon tell us much about the differences between digital and pre-digital cultures.

²¹ The tools were rapidly being developed. In 1994 Microsoft swiftly changed its policy toward the internet. The same year that Netscape was released publicly, Microsoft 'scrambled to produce its own browser and ended up licensing code from a smaller company, Spyglass, in order to have something to offer the world' (Arthur 2014, 14). Soon after, MS developed its own browser, and the so-called browser wars began.

creative destructionism in its purest form, and arguments for the process being one of integration may appear perverse at best. But in many respects that is what has been happening in almost all industries affected by the digital revolution. The process is complex, multi-staged, and was already taking place in universities. Indeed it is a process common to most of the key communicational shifts in western culture. Much as the first printed books in the half-century or so of *incunabula* were created to appear as if they were copied manuscripts (Eisenstein 1980; 2012), so the first decade or so of internet-influenced education generally produced an internet-enabled version of analogue models. Virtual learning spaces only really began to be explored in any sense *de novo* with the experience of using a variety of digital tools, and the realization that digital learning could be significantly different from earlier forms of learning, teaching and assessment.

That was already beginning in the early 1990s, and by the time ACLEC's report was published. HE IT large-scale projects such as TLTP;²² the strategic shift of bodies such as JISC from technical digital infrastructure into learning and teaching; the publication of edited collections such as Lockwood (1995) into internet-based learning and assessment; the development of influential theory such as information and network theory (Castells 1989, second edition 2009), Laurillard's conversational theory (Laurillard 2002), the multiliteracies and multimodalities of the New London Group (Cope and Kalantzis 1999), the approach to cognitive presence and communities of inquiry (Garrison and Anderson 2003) – all these and much more were part of a new ecology where e-learning, at first a stranger in the academy, gradually became converged, practised, theorized as any other aspect of educational culture.

It is of course too much to expect ACLEC to have foreseen all this; and indeed it was not foreseen by the BILETA Reports upon which ACLEC partly depended. The Report did argue for '*integrated learning*' (ACLEC 1996, 65, Committee's emphasis); but this refers specifically to curriculum integration of standards, and to the integration of Quality Assurance (QA), whereby professional programme accreditors would 'delegate quality assurance to [a] new single audit and assessment body in respect of those institutions which receive financial support through the Funding Councils'; or through a system of 'linked assessment exercises' with professional bodies and the then CPLS Board 'adding their additional requirements for vocational courses and common professional studies to the basic HEFC audit and assessment requirement' (ACLEC 1996, 88). ACLEC grasped the transformational potential of technology, but could have analysed it in more detail. Nevertheless its achievement is significant. Subsequent reports such as the Woods Reports and the Training Framework Review did little to advance either the subtlety of ACLEC's educational strategy, or articulate how technology and innovation might be integrated with other forms of education.

This very brief survey highlights a number of patterns in educational thinking on technology and innovation in professional legal education reports in England and Wales since Ormrod and before the Clementi watershed. In summary:

- Educational thinking pre-ACLEC does not match the complexity and sophistication of contemporary educational theory and practice.
- There is an absence of regulatory theory on education and technology: how should technological innovation be used in law schools? How should it be encouraged, sustained and regulated?

²² The Teaching and Learning Technology Programme (TLTP) was one of the largest technology initiatives in UK HE. It was a joint initiative of all the Higher Education Funding Councils in the UK. See Haywood et al (1998) for a detailed report commissioned by one of the principal funders, HEFCE (Higher Education Funding Council for England).

- There is in the reports, as Boon and Webb put it, ‘epistemic uncertainty about the nature of the English legal education project and a tendency to respond ad hoc to national, regional, and globalizing pressures’ (Boon and Webb 2008, 79). This applies to technology and innovation as well.

Since then, most of the pressures on undergraduate legal education have come from political agendas to increase access and numbers of students within universities, and the rise of the policy/audit culture to assess that and other changes – the rise of Teaching Quality Assessments, of the Quality Assurance Agency (incorporated in 1997) and the National Student Survey, for instance. Also influential has been curriculum specialization, the rise of a private legal education sector and European integration, the roles played by HEFCE and JISC and other bodies with responsibilities for development of e-learning and technology in UK HE.²³ The role played by successive RAEs and the REF (Research Excellence Framework) has done little to link research and educational activities in disciplines generally. In the field of regulation, and in spite of the general rise of educational technology within universities (White 2007), few of these agencies addressed the significant problems posed by the globalization of the world wide web, which rendered many compliance-based approaches to regulation redundant, and made highly problematic the move to comparative international benchmarking and the achievement of international quality standards (Phipps and Merisotis 2000).

Throughout and until recently, the default position on regulation adopted by both the Quality Assurance Agency (QAA) and the two main regulatory professional bodies (The Law Society of England and Wales, later the SRA, and the Bar Standards Board) had been to regulate *input* into educational processes.²⁴ Influenced no doubt by reports such as the BILETA reports referenced above, they focused on issues such as availability of computer labs, numbers of computers, type of software to be available to students including research databases and suchlike. Only recently has there been a shift to learning outcomes and a focus on educational output from the use of digital technologies. Throughout the period commentators such as Susskind (1998), Paliwala (2005a), Maharg (2007), Mayer (2005) and others argued that there should be a closer fit between technologies in use in the profession and those in use not just at the professional stages of education but in undergraduate stages as well. In the next section we shall briefly outline what might be termed, relatively speaking, two large-scale projects in legal education as illustrative of this direction of education design which, as we shall see, have significance for regulatory design also.

LARGE SCALE TECHNOLOGY PROJECTS IN LEGAL EDUCATION

In the field of legal education and technology, large-scale funded disciplinary initiatives such as the Law Courseware Consortium and its counterpart in Scotland, the Scottish Law Courseware Consortium, or the SIMPLE project (SIMulated Professional Learning Environment) made valuable contributions to the development of research and

²³ Though these bodies do of course have their own agendas, as was observed in White (2007).

²⁴ BSB – see <https://www.barstandardsboard.org.uk/>; SRA – see <http://www.sra.org.uk>. QAA distance learning guidelines is an instance of this. They cite the Open and Distance Learning Quality Council (ODL QC) standards on course objectives, content, publicity and recruitment, admission procedures, learning support, providers’ business and employment practices, and the like. To an extent, QAA ODL guidelines reveal the organisation’s attempt to integrate educational outcomes with business process analyses; but it could be argued that this fails to address adequately either the nature of the institution in which ODL is designed, nor the sophisticated needs of distance learners, and is based upon a view of performance criteria similar to the Business Excellence Model developed by the European Foundation for Quality Management, and adapted by the British Association for Open Learning (BAOL). See also Clegg et al 2003, who argue *inter alia* that the ‘conditions under which e-learning is being introduced into education are shaped by managerialist agendas’.

implementation (Paliwala 2005; Hughes et al 2008). Their successes raised issues for regulation of digital strategies – for example what might be the status of the large technology projects in the ongoing narrative of the law school curriculum? Were they to be pioneers of educational technologies, with no other status once funding ceased? In the SIMPLE report Maharg, discussing the implications of the SIMPLE project for institutions and disciplinary educational practices, compared such projects to cargo cults:

A narrative such as [the SIMPLE report] often deals with the project subject as if it were a unique instance of technological change embedded in an otherwise change-free curriculum. According to this narrative technology brings change to a curriculum that is described as an object; or at least arrives, as in cargo cults, bearing exotic and mysterious gifts to the curriculum. It generates predictable questions about change – learning gains are demonstrated, efficiency proven, usability debated. Often, there are predictable answers: learning is shown to improve, institutions are shown to be conservative in one way or another, implementers and innovators are implicit heroes of the narrative. (Hughes et al 2008, para 8.4.7.3)

And he went on to describe an approach to such projects that took account of historical process and the place of technology as both an agent of, and determinant of, complex change not by focusing on technology *per se*, but on curriculum:

Curricula are not change-free: their identities shift and move like a glacier. But what if we were to change point of view, and ask [...] whether there is such an object called 'curriculum' at all. What if curriculum itself is technology – nothing more than the stratigraphic evidence of prior technologies and their associated practices and social relations, evidence of technologies assimilated and absorbed by institutional practice? Viewed in this way, technological innovation becomes the historical narrative of disruption and change that has always occurred, a process that has both a material and social dimension. And as with anthropological accounts of cargo cults, the material and the social are both essential to an understanding of the phenomenon, and give rise to searching questions about the cultural bases of and intentions behind IT introduction and adoption on the one hand, and institutional practice and conservation on the other. The findings of a project such as [SIMPLE] are deeply unsettling because they call up questions about what we think teaching and learning actually is, and how it happens in our institutions. (Hughes et al 2008, para 8.4.7.4)

Viewed historically, then, large-scale projects such as IOLIS and SIMPLE (and there are others) reveal how institutional change within universities is essential to the process of embedding innovative technologies within disciplinary curricula. But it could be argued that the reverse is also true: the embedding of innovative IT deep within disciplinary curricula is essential to bring about institutional change.²⁵ Paliwala addressed similar issues with regard to IOLIS. Reviewing the decade of the project and its pedagogies, he called for a reconceptualization of IOLIS as content resource, to one of a learning development resource that could be shared, customized and used within an online collaborative commons (Paliwala 2005).

Both Paliwala and Maharg raise questions that bear upon regulation of learning technologies: the cultures and contexts of learning the ethical dimensions and the unique

²⁵ The general relationship between discipline and institution was of course analysed by Becher and Trowler (2001). See also Saunders et al (2006), who describe how innovators can display features of an 'enclave' culture, where protectionism and introspection grow once a 'siege' state sets in, after the initial successes of an innovation. Clearly regulation needs to take into account the potential configuration of conjunctures and constellations around such enclaves, so as to enable them to become porous to other communities of practice.

and often hidden histories of technologies in use. In his wide-ranging cultural essay on the history of IT in legal education, Paliwala explored the ‘pedagogical issues’ that ‘shape all technological eras of learning’ (Paliwala 2010). Arguing that ‘the adaptation of learning technologies for legal education has been influenced by prevailing pedagogies’, he points out that ‘learning technologies have to be created and adapted within the cultural context if they are to be effective’. Maharg emphasized the potential for learning technologies to transform the administration of justice and legal education, taking his stance from research on New Media, the history of communications and ethical and moral philosophy. He argued for the development of “‘resistant readings” (Kress 1988, 7) of the educational canon; and for an understanding of how past technologies affect what we do now, and enable us to discern future developments.²⁶

TECHNOLOGY AND INNOVATION IN LEGAL EDUCATION IN SCOTLAND: A COMPARATIVE CASE STUDY

If large-scale technology projects have had some visible impact in the field of legal educational technology, then regulatory relationship has had arguably a greater if more invisible impact. In the following brief case study we can see how issues arising from regulation of technology were dealt with in another jurisdiction, namely Scotland. The Scottish example is interesting for two reasons. First, the context for regulation of quality in Higher Education in Scotland is different to that of England and Wales; and this has had two effects, on the background of legal education generally, and on the specific culture and reception of technology in Scotland. Second, regulation of technology in legal education has taken a significantly different path to that in England and Wales.

Scottish legal education is different in many aspects from that of England and Wales, as we might expect of a jurisdiction whose history, culture, laws and legal structures (courts, judiciary, institutional and regulatory bodies) are substantially different from those of the other jurisdictions of these isles.²⁷ While there is no space here to detail that history and culture there are two differences that have been significant in the reception and regulation of technology and innovation, namely QAA and the structure of professional legal education.

It should be recognised from the outset that QA in Scottish Universities, having set out along the same path as the rest of the UK, diverged significantly when it became clear that the structures of ethos of QAA did not fit well with the ethos of HE in Scotland. Harvey and Newton described that unease in their trenchant summary of the effects of quality evaluation in HE:

At the core, the contention is that asking an amorphous group of academics to identify their strengths and weaknesses and for an agency or ministerial department to send out a raiding party to pass summary judgment on the quality of provision may ensure compliance to policy or regulation or contribute to some form of control

²⁶ Drawing upon Scottish Enlightenment sources as well as the philosopher Gillian Rose and radical educationalists, he pointed to the ethical dimension of legal learning and its technologies:

To define what our ethical values are, we must look beyond regulatory codes to the analysis of the broken middle, the fundamental relationship between ethics and law, and enact that relationship within the law school. It is [...] a negotiation of the boundaries of the soul and the city, and their perennial anxiety. (Maharg 2007, 274)

²⁷ The history of Scottish legal education has yet to be written. For a general overview, see Black et al (1991) under ‘Legal Education’. For aspects of its culture and history, see for example Cairns (2015), Finlay (2007; 2009), Maharg (2004), Paterson (1988). One important differential between Scotland and England is the effect of size: Scotland’s legal profession is a approximately a tenth the size of England and Wales, and with numbers of HE institutions correspondingly smaller.

over the sector, and it may satisfy the illusion of accountability, but has nothing to do with the essential nature of quality. It is a bureaucratic process quite removed from either the student learning or the creative research processes, which, it is argued, lies at the heart of quality in higher education. (Harvey and Newton 2007, 226; see also Bamber and Anderson 2012)

Scotland at first followed the QA model of the rest of the UK from the early nineties then, in 2003, following dissatisfaction with this model from institutions (stemming from bureaucratic managerialism, and the resulting conflict between quality rhetoric and academic discourse – Worthington and Hodgson 2005, Cuthbert 2011), developed its own model of the Quality Enhancement Framework.²⁸ This model was based upon the concept of enhancement-led quality assurance, where institutions reviewed their practices and cultures in a process that was much more student-centred (with students actively engaged as part of the process, rather than simply respondent-fodder), focused on the longer-term of institutional improvement, and emphasised reflection and improvement for the future (QAAHE 2015).²⁹ Ownership and legitimisation of the process of review was seen as critical to the process of shifting from audit-policy cycles to improvement cycles. In addition, the process emphasised self-review through a process called ELIR (Enhancement-Led Institutional Review), and the development of Enhancement themes by QA Scotland.³⁰ In more detail, this involved the following activities:

- Enhancement Themes³¹
- enhancement-led institutional review (ELIR)
- institution-led quality review
- the engagement of students in quality management, including the support provided through the national independent development service, Student Participation in Quality Scotland (SPARQS)
- institutional provision of an agreed set of public information.

The problems inherent in this approach are not trivial. Training of staff evaluators, and students engaged in the process is essential, not least in helping participants to relinquish the core ideas and behaviours inherent in what is increasingly viewed as a discredited QA process, but one that is nevertheless locked into other powerful status indicators. As

²⁸ Developed through a partnership of the Scottish Funding Council (SFC), Universities Scotland, the National Union of Students in Scotland (NUS Scotland) and QAA Scotland, with the HEA latterly joining the partnership.

²⁹ The model had been advocated by Mantz Yorke in the early nineties (Yorke 1994).

³⁰ A process described as 'take an area of current pedagogical importance to the sector, fund it, bring international experts in to debate issues with practitioners and give the whole Theme a burst of energy' (Ross et al 2007, 4).

³¹ These are areas of HE teaching learning and assessment practice that are the focus for institutions and students in Scottish HEIs. According to QEF, 'the Themes encourage staff and students to share current good practice and collectively generate ideas and models for innovation in learning and teaching. The work of the Enhancement Themes is planned and directed by the Scottish Higher Education Enhancement Committee (SHEEC)'. See <http://www.enhancementthemes.ac.uk/enhancement-themes/completed-enhancement-themes/research-teaching-linkages>. The current theme is Student Transitions, and earlier themes included the following:

1. Developing and Supporting the Curriculum (2011-14)
2. Graduates for the 21st Century: Integrating the Enhancement Themes (2008-11)
3. Research-Teaching Linkages: enhancing graduate attributes (2006-08)
4. The First Year: Engagement and Empowerment (2005-08)
5. Integrative Assessment (2005-06)
6. Flexible Delivery (2004-06)
7. Employability (2004-06)
8. Responding to Student Needs (2003-04)
9. Assessment (2003-04)

Westerheijden points out, the gravitational pull of QA processes, weighted by other factors such as Europeanisation and the rise of global university and subject rankings, is hard to resist (Westerheijden 2013). In Scotland, however, the development of the nation's HE partnership has succeeded to a considerable extent in doing that. As Land and Gordon point out, key to this has been the quality of mutual trust arising from shared culture and sense of community. (Land and Gordon 2013, 82). They go on to quote the Lancaster University team that reviewed the first phases of implementation of the QEF, on the subject of the 'theory of action' underpinning the QEF:

“[t]his enabled a familiarity, an ownership and a legitimation that other forms of implementation strategy might find hard to emulate. We term this a theory of ‘consensual development’”³²

While rejecting the notion that the Scottish approach is directly oppositional to QAA, Land and Gordon do point out that underpinning enhancement is a strong focus on three elements: quality culture, high-quality learning, and student engagement. They note the factors in UK HE that mitigate against such elements, and against the development of consensual development – the pressure of the Research Excellence Framework (REF), the National Student Survey (NSS), the clash of orthodoxies within one organisation, namely QAA (ie policy/audit vs enhancement), the demise in 2011 of organisations such as HEA's Subject Centres that promoted enhancement at the vital level of practitioner and disciplinary management, further austerity measures with a concomitant reliance on further New Managerialist practices, and the habituated practices of disciplines and professions (Land and Gordon 87-90).

Before 2008 or so, the Law Society of Scotland's Education and Training Committee had no guidelines on or regulatory policy for technology in legal education.³³ The first statements were drafted for the then new professional education programme in 2008.³⁴ These were the first statements on technology issued by the Law Society, and they were generally constructivist in nature, for example pointing out that 'web-based simulations of legal office environments and transactions are useful ways for students to learn a range of practitioner skills' (Maharg 2008, 15). This is in contrast to the situation in England & Wales where the approach to the regulation of technology in the professional domain following reports subsequent to ACLEC consisted largely of statements of mandatory inputs and specific approaches that providers were required to follow.³⁵

³² Land and Gordon (2013, 83), citing Saunders et al (2006, 10).

³³ The Law Society of Scotland, established by statute in 1949, has powers to regulate legal education in Scotland under the Solicitors (Scotland) Act 1980 as amended. It does so in practice through Council and standing, statutory and ad hoc committees among which is the Education and Training Committee. Education at the Bar in Scotland is designed, implemented and regulated by the Dean of the Faculty of Advocates operating through committees.

³⁴ Drafted by and on file with the author. The documents were based on best practice guidelines issued by the Joint Infrastructure Services Committee (JISC), the UK Centre for Legal Education (UKCLE), the BILETA Reports and a report to UKCLE by the author on Scottish law school teaching, learning and assessment practices – the latter report on file with the author.

³⁵ For example entrance and assessment criteria, notional learning hours, monitoring regimes, grading criteria, student-staff ratios (SSRs), and the ratio of computers to students and the like. Pre-2009 both the SRA and BSB set SSRs for their programmes – a SSR of 12:1 on the LPC and 12.5:1 on the BVC. It had been known for at least a decade that there was no evidence that SSR had a positive impact on students, though there are general associations between teaching resource and teaching quality (Murray et al 1996). The same could be said of computer to student ratios. Post-2010 the SRA attempted a 'light-touch' regulatory regime; but this pleased few stakeholders (Shrubsall 1995; Knott 2010), and still suppressed innovation in both curriculum design and technology-enhanced learning (Serby 2011).

At this period, the Law Society of Scotland undertook a jurisdiction-wide consultation on the structure and content of the professional education programme, as a result of which many aspects of the programme were reviewed and altered. Perhaps most significantly, the curricular aims and objectives of the substantive subjects of the Diploma in Legal Practice (renamed Professional Education and Training, 1, or PEAT 1) were rewritten as learning outcomes while skills, which had not been formally defined in terms of objectives, were now described in detailed learning outcomes. Stemming from the results of the wide consultation, and from the research into good professional practices in other jurisdictions and other professions carried out by Maharg and others, the focus for both skills and substantive and procedural legal knowledge became grounded upon the foundation of professionalism.³⁶ The legal skills domains of the entire three-year programme were re-conceived as the communicational aspects of professionalism; and their outcomes were defined and drafted as subjects within that framework.³⁷

Without attempting to 'teacher-proof' the curriculum, the learning outcomes demonstrated the practices that the Law Society wished providers to demonstrate. Thus technology was embedded within other communicational skills, eg outcome 4 of Writing and Drafting included the demonstration of the 'use of a precedent bank of styles to progress a transaction' (Maharg 2008). Under 'Transactional Research', outcome 4 stated 'Use appropriate legal research instruments, both paper and electronic'.³⁸

It was in the minor domain entitled 'Use of Technology' that innovation and technology was foregrounded in PEAT 1. The skills involved use of digital telephony, email, e-drafting tools and an understanding of 'how technology is used in at least three areas of legal practice in Scotland, including the administration of justice'. The positive indicators for this included the following:

[A student k]nows and can explain how technology affects current legal practice in Scotland in three areas of legal practice (eg document assembly, case management, practice management systems, use of e-communications); can discuss direction of future trends in legal office technology

The skills therefore included future-oriented thinking about technology. This is an odd item to be a skill, at first glance. The skill, however, lies in the integration of present knowledge (which assumes that students will seek to know what the present situation is for Scots law,

³⁶ Professionalism was defined as a 'major domain', and within this the minor domains were stated as a commitment to five statements: to the interests of justice and democracy in society, to effective and competent legal services on behalf of a client, to continuing professional education and personal development, to public service (including *pro bono* work), and to honesty and civility towards colleagues, clients and the courts.

³⁷ The listed skills of the 'major domain' of Communications were described in 'minor domains' and included the following: Professional Relationships, Interviewing, Negotiation, Writing and Drafting, Transactional Research, Use of Technology, Advocacy. While these were regarded as core, they did not form a unique and therefore separated skills silo – the Guidelines strongly emphasized the need for providers to use the outcomes pervasively as well as in foundational or intermediate-staged intensive sessions. Other skills sets appeared elsewhere in the outcomes – for instance under the major domain of Business Practice were listed Diary Management, Time Management and Conduct in the Office Environment.

³⁸ The positive indicators for the outcome (which describe typical standards for the outcome, set out in the form of items of behaviour) stated:

Locates and uses cases and legislation, standard practitioner texts, periodical literature and the like, using research tools such as digests, citators and electronic tools such as WestLaw and Lexis Nexis; keeps a precise research record; can identify key research terms; knows how to plan a research strategy

The negative indicators stated:

Little use or interpretation of primary materials; cannot find or use correctly paper-based research tools; uses only generally available internet search engines (eg Google) for legal research; little sense of purpose, and no sense of strategy.

possibly in other jurisdictions too), with thinking about the future, based on their own experience, and those of others in the profession. Knowledge and skill, past present and future, and the convergence of media platforms are thus key vectors in this minor domain, which is above all collaborative in its nature – which is why it lies within the major domain of Communications, which in turn is sited as a critical component of Professionalism.

Two further points are worth noting. First, if the learning outcomes for students involved learning by collaboration, it was a concept encouraged by the regulator among providers of professional education in Scotland. Some providers already worked together collaboratively. Strathclyde and Glasgow universities' law schools were already working closely in the joint Glasgow Graduate School of Law (Maharg 2011). GGSL also collaborated with Stirling University Law School on multimedia and webcast use and development, and with the Society of Writers to the Signet on professional programmes.³⁹ There was also an attempt by one provider, namely the GGSL, to develop a Community of Practice in PEAT 1, outlined at the 2009 UKCLE Conference, 'Enhancing Legal Education in Scotland', held in Edinburgh.⁴⁰

Second, the regulatory structure comprised two significant elements. It was based on a detailed understanding of learning outcomes, how learning outcomes could clarify the design of the programme for all concerned, and be a tool to encourage providers to innovate. Beyond that, the regulator's accreditation process also encouraged innovation in the programme – not only in the design of teaching interventions, but in links with the profession. Regulation is also based upon close contact with providers, so that the relationships between regulator and regulated was less of a top-down monitor regime, and more of a conversation, with both sides learning from each other. This is of course easier to accomplish in some respects in a smaller jurisdiction (though there are difficulties too arising from that); but there is no reason why it cannot be attempted on a larger scale.

LETR'S POSITION ON TECHNOLOGY AND INNOVATION

One of the key regulatory shifts that took place as a result of LETR (and few critiques subsequently have noted this) was from a narrow focus on content or assessment (as in the Training Framework Review and other reports) to the discourse of standards enacted through learning and teaching. The regulatory space thus shifted from static statements of knowledge, skills and values to the organic interaction of these statements and their assessment by a wide range of partners in a complex learning process. Central to the regulation of this interaction, LETR argued, was a clarification of the roles of the regulator. In highly complex cross-currents of regulators and their separate regimes, standards, outcomes and procedures for qualification the passage of self-development, social learning and professional formation was well-nigh un navigable for students and trainees, and ungovernable for regulators.⁴¹

³⁹ GGSL also collaborated outside the jurisdiction with the Oxford Institute of Legal Practice, the College of Law in England and Wales, and with many others in the SIMPLE project (see Hughes et al (2008), and for further information see http://simplecommunity.org/?page_id=46)

⁴⁰ Powerpoint slides and other information are on file with the author. See also <http://paulmaharg.com/2009/11/13/enhancing-legal-education-in-scotland/>. This collaboration did not achieve any significant results, but was an indication of potential future directions for Scottish professional legal education.

⁴¹ As regards the TFR, it should be noted as Boon, Flood and Webb have done (2005, 473), that in its aspirations 'to provide flexibility and accommodate diversity, differentiation, and mobility', the Training Framework Review Group did 'espouse distinctly postmodern themes'.

While it was clear from the evidence gathered by LETR that the potential convergence of regulators into one frontline über-regulator was not regarded as useful or workable, the relationships between regulators clearly required to be re-considered. For this and other reasons LETR argued for greater consistency of standards, and higher quality across the system, particularly in the learning of legal ethics, skills and professionalism and in forms of assessment (LETR 2013, Recommendations 1-3, 6-7, 11); for flexibility in LSET based upon learning outcomes, not fixed time served upon programmes of study (LETR 2013, Recommendations 10, 12, 15); and for addressing the damaging effects of access barriers to legal education and the profession (LETR 2013, Recommendations 20-22). It also recommended the creation of a single source of information on legal careers and in-depth data on the legal services market, particularly for employment and education.

Against this educational backdrop, what did this approach allow LETR to say about innovation and technology? Following its problem-based methodology (referenced above), the research team took four approaches:

1. Commission of a report by Richard Susskind on the future of legal education and professional legal services⁴²
2. Fieldwork, gathering data on technology use, particularly in skills domains, eg information search skills, to identify perceived issues
3. Comment from the academy and the profession on use of technology and innovation in LSET
4. Analysis of the regulation of technology and legal education, including comparison with other professions and jurisdictions.

Susskind's work was valuable for its analysis of legal service and digital technologies generally, and the place that legal education can play in helping students to a critical understanding of it as part of the professional world. The broad features of Susskind's sustained analysis of legal services are there in his report – the role of IT in speeding up traditional high value service, ie automation; the commoditisation of standard and repetitive legal service; the emergence of technology as innovation in meeting latent and as yet unmet legal service; the role of technology in creating new forms of legal employment. When his report is set within the context of the wider research on the effects of global knowledge economy, of ubiquitous, digital always-on services, and theories of the network society, long waves, techno-economic paradigms and much more, it becomes a useful probe into the relationship between not just professional legal education and technology, but between *any* form of legal education and technology.

Following Susskind, the main LETR report noted the implications that technology has for employment in the legal market, the creation of new forms of employment, and the impact of this upon LSET and also the undergraduate law degree (LETR 2013, para 3.96). Considering the research data, particularly on skills,⁴³ the report drew the comparison between education *in* and *through* technology within the accountancy profession, and the situation in legal education (LETR 2013, para 4.17). The authors called for 'a greater understanding of the transformative potential of information technology' that involved

⁴² Richard Susskind, 'Provocations and Perspectives', LETR Briefing Paper 3/2012 (LETR, 2012). See also Susskind (2013).

⁴³ One of the interviews we conducted was with the representatives of BIALL (British and Irish Association of Law Librarians) who held firm and well-informed views on the uses and abuses of technology in the legal information search processes. Amongst many approaches they advised support for digital literacy that embedded information skills within the context of other skills development such as determination of authenticity of information, digital note-taking skills, writing skills, collaborative research skills, etc. See 'LETR BIALL meeting' at <http://letr.org.uk/open-submissions/index.html>

understanding future directions of technology creation and use in society and the law (LETR 2013, para 4.70)

Regulation, shared space and innovating technology

The regulatory options for legal education open to the LETR team were not all clear from the evidence we gathered from our fieldwork. Deregulation was never an option, and top-down New Managerialist QA-type regulation would not work within a professional regulatory framework that had adopted an OFR (outcomes-focused regulation) approach to regulation. Independent regulation and self-regulation of providers would run contrary to the statutory duties of both LSB and frontline regulators as well as to both QA and QE. The solutions that LETR proposed (following the research methodology set out in the Introduction above) were syncretic, and a combination of approaches such as multi-modal regulation and risk compensation theory (Adams 1995).

Viewed from the standpoint of technological innovation, from both previous research and the direction of regulation in OFR, two proposals were possible: first, treating technological innovation as integral to both legal education and legal service provision, and second, adapting forms of responsive regulation (Ayres and Braithwaite 1992; Nicolson and Webb 1999). Technology is implicit in every form of academic and professional learning. We have already seen the first at work in the gradual convergence of technology and education over the last three decades. Responsive regulation argues for a dialogue between regulator and regulatee, with strong top-down sanctions held in reserve. In LETR, the research team followed Scott (2012) and Parker (2002) on multi-modal regulation, but took this further, developing a model of ‘shared space’ regulation.⁴⁴

The literature on this was reviewed in chapter 3 of the Literature Review, in the context of Conduct of Business Regulation, and its potential outlined; and it was explored with other aspects of educational and regulatory activity in the main Report. We designed a framework that would be based on defined outcomes and standards, and which would take account of the main features of OFR.

We described a version of an approach called ‘shared space’ (adopted by others such as Adams, as we noted in the Literature Review), which goes beyond Parker’s argument that hierarchy is the best regulatory tool to steer self-regulation (Scott 2012, 82). In Scott’s model, regulators observe and identify the ‘mechanisms at play’; then they work out ‘ways to key into those mechanisms, to steer them towards desired outcomes’ (Scott 2012, 82) – mechanisms that also include competition and/or community as well as hierarchy.

The steering metaphor is Scott’s own, but it points us in the direction of an example of multi-modal regulation that fits legal education, namely road traffic regulation. Innovators of ‘shared space’ regulation in road design reduce road furniture and signage, erase cues such as kerbs and uproot traffic lights. They design closely for local situations, observing and giving space to lines of desire and eye-lines for all road users. They bring together vehicles (private and PSVs), cycles and people in ambiguous contexts, and in doing so transform civic space by deliberately integrating traffic ‘into the social and cultural protocols that govern the rest of public life’ (Hamilton-Baillie 2008, 161). They give responsibility back to drivers

⁴⁴ Multi-modal regulation is defined by Scott as being the concept that ‘all social and economic spheres in which governments or others might have an interest in controlling already have within them mechanisms of steering – whether through hierarchy, competition, community, design or some combination thereof’ (Scott 2012, 82, cited in LETR Literature Review, chapter 3, para 40). Scott cited the LSA as an area of regulation where multi-modality may be appropriate.

and create environments where that responsibility needed to be exercised much more actively than in conventionally-designed road contexts. In doing so they foreground the subtler but still important elements of travel psychology — the crucial part that eye contact plays in slow-road encounters as an indicator of intention, for instance, or the psychology of perception, or the role that taken-for-granted safety devices such as traffic lights play in decreasing road user attention and increasing risk-taking. Road traffic regulation is of course a multi-modal regulatory space, and shared space innovation is one approach amongst many in the culture and semantics of urban traffic, but in the right context and designed well, it works because it takes account of agency, and redistributes responsibility.

There are many ways that shared space can be applied to the spaces of legal education. Academic learning environments can be over-engineered with learning outcomes, module handbooks, reading lists, information on assessments and much else. Helpful though some of this can be, it can diminish student responsibility, curiosity and attention, and institutionalise the process and product of learning. Learning outcomes are in many ways an essential foundation for good governance of legal education, but alone they are insufficient to deal with the ethical complexities of legal education, as I pointed out in 2007, and for these reasons:

Alone, and acting as performance criteria or learning outcomes, such statements can become impositions on students, setting up a dialogue of learned helplessness. If these are the criteria of assessment, students argue reasonably, show us examples of acceptable performance that we may copy. For students, the focus thus moves from organic development of self to the copying of forms of behaviour and rote resumption of knowledge. Performance criteria thus become ever more detailed, and student performance ever more baroquely imitative in order to comply with assessment criteria. In this environment the space for the growth and development of ethical awareness is diminished. What is required is the first-order ethical structure that arises not from the ethical intuitions of students or staff, nor from the impositions of a set of ethical guidelines, but from the moral dialectic of self, profession and society. (Maharg 2007, 112)

That 'moral dialectic', paradoxically, is not developed by putting up ever more signage saying do this, don't do that, be here at this time, study that text in this way. If we want students to be responsible learners, civic citizens, just and ethical lawyers then, much as we want drivers to be responsible citizens behind the wheel, we need to re-design aspects of the learning landscape along the lines advocated by shared space regulation.

The ethical dimension extends to the use of technology in legal education; and two points are relevant here. First, if technology is such an important aspect of legal practice, and if our lives are imbricated with digital technologies at every turn, it behoves us in the academy to help regulators design regulatory models where student development and learning is the first priority, and technology is used to that end. Regulation itself thus becomes a shared space, modelling the shared spaces between students, between providers, between the academy and the profession, between academic and professional educators in the law school, between law school and society.⁴⁵ Most of these spaces are difficult to build and sustain without regulatory support. But as we pointed out in LETR, the co-ordination of regulation across the frontline regulators as well as others involved in the regulatory hierarchy is essential to good governance.⁴⁶ For this reason, Recommendation 25 in LETR,

⁴⁵ In a sense this is nothing new. Over 40 years ago, in a response to the Ormrod Report, Robert Stevens noted the need for mutual trust and respect between educators in the academy and the profession (Stevens 1972).

⁴⁶ We noted the risk posed currently by regulators who have a 'high degree of autonomy over their LSET and authorisation systems; and share overlapping jurisdiction over reserved activities' (LETR 2013, para 5.30).

which in many respects is threaded through most of the other Recommendations, is an important theoretical and practical innovation:

Recommendation 25

A body, the 'Legal Education Council', should be established to provide a forum for the coordination of the continuing review of LSET and to advise the approved regulators on LSET regulation and effective practice. The Council should also oversee a collaborative hub of legal information resources and activities able to perform the following functions:

- *Data archive (including diversity monitoring and evaluation of diversity initiatives);*
- *Advice shop (careers information);*
- *Legal Education Laboratory (supporting collaborative research and development);*
- *Clearing house (advertising work experience; advising on transfer regulations and reviewing disputed transfer decisions).* (LETR 2013, xviii)

Secondly, there has since the early days of the internet been a strong voice for the collaborative power of the web in human affairs, as we have seen above. Web design has always been an interdisciplinary activity, in which new partnerships are formed between what had hitherto been disciplinary silos. Examples include the development of video conferencing (Anderson et al 2001), collaborative online spaces (Buxton 1992), and collaborative augmented reality (Billinghurst 1999). Collaboration across disciplines and within educational applications was built into the large-scale legal learning technology projects we have considered above, namely IOLIS and SIMPLE, and at many different levels. Shared space regulation would, we hoped, therefore encourage many aspects of such technological innovation to flourish and to be sustainable within LSET learning communities – an approach which is urgently required.

UPDATE: LETR, SHARED SPACE, TECHNOLOGY AND INNOVATION

The LETR report was published in June 2013. Following its publication, there has been some movement on implementation of its Recommendations. The SRA and BSB have committed to developing competency frameworks, and the SRA has also committed to an outcomes-focused CPD framework; and the SRA and BSB are collaborating on a common competence framework.⁴⁷ The regulators have abolished the Joint Academic Stage Board (JASB), with providers now self-certifying their compliance with the Joint Statement and QAA or QE standards. On technology and innovation the SRA has made general statements about the need to take into account technological change, and for it to be given prominence in any new regulatory code. The Bar has given approval to some of LETR but on the subject of technology and innovation its response is still too conservative, with little understanding of the range or pace of radical change that is required:

[W]e must allow training providers to take advantage of innovations in training – for instance in the way that information is shared with the student. Modern online delivery techniques (such as webinars and e-learning) might prove valuable.

The response from the UK legal academy in general to LETR, but in particular on technology and innovation, has been disappointing.⁴⁸ Neither the special issue of *The Law Teacher* (2014, 1) nor an edited book collection (Sommerlad et al 2015) address key issues for

⁴⁷ See <http://www.sra.org.uk/sra/news/press/2014/julie-brannan-speech-westminster-forum-4-november.page>.

⁴⁸ As it was to LETR itself, with only eight law schools and five individual academics responding to the consultation, and public law school staff accounting for only 5.7% of the online survey respondents. See LETR (2013), n.6, Appendices A and D (statistics cited in Webb 2015, 134-5, n.157). This is not quite on the scale of academic indifference encountered by Ormrod (noted by Twining 2015), but it comes close.

technology and innovation outlined in this article, and at a time when technology is a critical driver in professional education, and when both technology and innovation is also a critical component in the marketization, financialisation and privatisation of HE generally and law school curricula in particular. Advanced use of digital communications technologies developed by private providers, and in particular by publishing and media corporations such as Pearson will in the future play a key role in the digitisation of legal education.

Internationally, there have been more focused responses to the issues that faced the LETR research team. Following LETR, there has been a movement by regulatory bodies towards a greater recognition of the role technology plays in LSET in at least two jurisdictions. In both the USA and Canada there has been an acknowledgement that more responsive regulation and more understanding of the meta-regulation of technology and innovation is required. In the USA the ABA Task Force Report observed that innovations in legal services required greater understanding and use of technology in law schools, and that ‘only a modest number of law schools currently include developing this competence as part of their curriculum’ (ABA 2014, 14). It called for the accreditation system to facilitate innovation, observing that ‘current procedures under which schools can seek exceptions from ABA Standards in order to pursue experiments or innovations are narrow and confidential’, and ‘energetically restructure the variance system as an avenue to foster experimentation by law schools and open the variance process and results to full public view.’⁴⁹

In its report published in 2014 the Canadian Bar Association declared that technology, along with innovation and liberalization of legal services, constituted the three drivers of ‘transformative forces’ changing the Canadian legal profession (CBA 2014). At 4.1 the Report explicitly links analysis of professional use of technology with legal education, not just for CPD purposes, but for Canadian law schools as well.⁵⁰ It urged law schools to innovate, and many of its recommendations on legal education echo those in LETR – the adoption of new models for legal education, enhancement of problem-solving in the practising world, focus on learning outcomes, easing restrictions on students in legal clinics, structured, consistent, rigorous pre-Call training, consistent knowledge and skills standards for certification, the creation of parallel legal programmes, and the improvement of continuing professional development (Recommendations 15-22, CBA 2014, 58-63).

⁴⁹ The ‘variance system’ is a procedure by which the ABA can negotiate its own highly-restrictive standards on the use of technology and innovation for ABA-accredited law schools in the USA. Currently the variance with the highest profile was that granted to William Mitchell Law School to enable it to offer a hybrid online/on campus JD law degree. See <http://web.wmitchell.edu/news/2013/12/william-mitchell-to-offer-first-aba-accredited-hybrid-on-campus-online-j-d-program/>.

Though the Task Force did not investigate different meta-models of regulatory change or regulatory agents to bring this about, it advocated improved frameworks:

To expand access to justice, state supreme courts, state bar associations, admitting authorities, and other regulators should devise and consider for adoption new or improved frameworks for licensing or otherwise authorizing providers of legal and related services. This should include authorizing bar admission for people whose preparation may be other than the traditional four-years of college plus three-years of classroom-based law school education, and licensing persons other than holders of a J.D. to deliver limited legal services. The current misdistribution of legal services and common lack of access to legal advice of any kind requires innovative and aggressive remediation.

Commentators point out the need for ethical frameworks to take account of new technological challenges, eg Podgers 2014.

⁵⁰ The Report contains many examples of innovation and technology development, largely from branches of the legal profession. On legal education it advocated that ‘legal education providers, including law schools, should be empowered to innovate so that students can have a choice in the way they receive legal education, whether through traditional models or through restructured, streamlined or specialized programs, or innovative delivery models (CBA 2014, 58).

This contrasts with the relative indifference shown to the subjects of technology and innovation by regulators such as QAA in the UK. The recent revision of the Subject Benchmark Statement for Law, (Draft March 2015) is typical in this regard. Despite the research findings of LETR, the redrafted Benchmark Statement contains very little new thinking on technology or innovation, and is based upon an input, not an output model of quality.⁵¹ Post-LETR, there are significant changes to the regulatory landscape, few of which are reflected in the revised Statement as it currently stands in the consultative version. Small amendments that shift emphases on skills and values rather than knowledge and skills are fairly trivial at a time when the academic community has it within their grasp to make much more important changes for the better in legal education.⁵²

CONCLUSION

This article analyses regulatory approaches outlined in LETR that can enhance and transform the culture and practices of technology and innovation in legal education in England and Wales. They are sorely needed. At a time when the complexity, flexibility and cost of access routes to a profession in the law will increase; when we see marketisation and privatisation of legal education increasing and the entry into the market of for-profit enterprises whose investment in technological platforms and approaches is more advanced than many law schools, we must question our attitude to the regulation of technology and innovation.

In place of close specification of hours or modes of learning, we need an emphasis on common competence frameworks to clarify what, in the new domain of technology skills and knowledge, we need our students to know and be able to do. Top-down regimes such as QAA and highly monitoring regulatory codes typical of those promulgated by professional bodies in the past will no longer suffice to enhance quality of learning.⁵³ As a version of hierarchy QA has a role to play, but it is becoming increasingly discredited. We need versions of quality enhancement, 'consensual development', shared space, collaboration and dialogue at every level of legal education. At a time when institutions such as the invaluable subject centres (for us in Law, the UK Centre for Legal Education) have been closed down, we need the institutions, the funding and above all the commitment to collaborative work in order to improve legal education, and this applies to the work of regulators with those they are regulating. If this is so in legal education, it is also the case

⁵¹ See s.3.4:

Higher education providers with direct or indirect responsibility for a recognised law programme should ensure that teaching and learning resources, including staff, library provision, and information and communications technology, are adequate to enable students enrolled on a law programme to gain the knowledge and acquire the skills set out in this Statement and in any regulatory competence or professional framework statements of the legal regulation bodies, as relevant to the programme of study

⁵² Methodologically, the QAA Statement is weak. The consultative work of the Review Group is described in a brief paragraph. There is no reference to prior academic work on QA Benchmark Statements, none on the literature describing and analysing QA Statements in other disciplines, no evidence-based argumentation supporting the amendments that have been made, no empirical work to support the amendments made. Indeed there is no reference to *any* research, legal educational, legal professional, legal academic. With the exception of one, all nine footnotes refer to QAA documentation only. There is no systematic review of research, no Table of Amendments made by the Group, no tracked changes between this consultative version and the earlier version(s), making it difficult for readers to engage in any meaningful textual comparison. To be sure, QAA Statements are formed according to templates; but as Webb points out (Webb 2015, 122), the Law version is particularly 'dry, technical and minimalist in its approach'.

⁵³ Recent developments do not inspire confidence. According to the *Times Higher Education* HEFCE (now the lead on QA for England, Wales and Northern Ireland (but not Scotland) will be outsourcing QA processes, which will now take the form of self-certification. There is to date little detail, but the careful structuring of the Scots approach to QE does not seem to be part of the new approach. See Evans (2015) and Grove (2015)

with technology and innovation. Digital technology is no longer an option for us in legal education, for it is incorporated into our already existing repertoires of sociocultural activities in telecommunications, houses, cars, travel, finance, law, medical care, and much else – in use in such informal learning environments, why would we not use it to learn in formal education? As we have seen, what matters is how we form our relationship with it, with those who use it, with those who own it, and with those who regulate it.

REFERENCES

- Adams, John. 1995. *Risk*. First edition. London; Bristol, PA: UCL press.
- American Bar Association. 2014. "Report and Recommendations. American Bar Association. Task Force on the Future of Legal Education." http://www.americanbar.org/groups/professional_responsibility/taskforceonthefutureoflegaleducation.html.
- Anderson, James, Nahella Ashraf, Craig Douthet, and Mervyn A. Jack. 2001. "Presence and Usability in Shared Space Virtual Conferencing: A Participatory Design Study." *CyberPsychology & Behavior* 4 (2): 287–305. doi:10.1089/109493101300117965.
- Arthur, Charles. 2014. *Digital Wars: Apple, Google, Microsoft and the Battle for the Internet*. 2 edition. London ; Philadelphia: Kogan Page.
- Association, British and Irish Legal Education Technology. 1991. *Report of BILETA Inquiry into the Provision of Information Technology in U.K. Law Schools: Executive Summary*. [Warwick]: The Association. <http://capitadiscovery.co.uk/sussex-ac/items/459666>.
- Ayres, Ian. 1992. *Responsive Regulation: Transcending the Deregulation Debate*. Oxford: Oxford University Press.
- Bamber, Veronica, and Sally Anderson. 2012. "Evaluating Learning and Teaching: Institutional Needs and Individual Practices." *International Journal for Academic Development* 17 (1): 5–18. doi:10.1080/1360144X.2011.586459.
- Bar Standards Board (BSB). 2015. "Future Bar Training. A Programme of Review and Reform That Will Bring Our Training Regulation up to Date and Assure High Standards in Barristers' Services for the Future." https://www.barstandardsboard.org.uk/media/1650565/future_bar_training_programme_update_february_2015_pdf__va499362_.pdf.
- Bates, A. W. 1988. "Television, Learning and Distance Education." *Journal of Educational Television* 14 (3): 213–25. doi:10.1080/0260741880140305.
- Becher, Tony, and Paul Trowler. 2001. *Academic Tribes and Territories: Intellectual Enquiry and the Cultures of Disciplines*. 2 edition. Philadelphia, PA: Open University Press.
- Benkler, Yochai. 2007. *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven, Conn.: Yale University Press.
- Berners-Lee, Tim. 2000. *By Tim Berners-Lee Weaving the Web: The Past, Present and Future of the World Wide Web by Its Inventor*. New edition edition. Texere Publishing.
- Billinghurst, Mark. 1999. "Shared Space: Collaborative Augmented Reality." In *ACM SIGGRAPH 99 Conference Abstracts and Applications*, 178 – . SIGGRAPH '99. New York, NY, USA: ACM. doi:10.1145/311625.311982.
- Black, Robert, Joseph M. Thomson, and Kenneth Miller, eds. n.d. *The Laws of Scotland: Stair Memorial Encyclopaedia*.
- Bloxham, Sefton, Paul Maharg, and Patricia McKellar. 2007. "Summary Report on the UKCLE/BILETA VLE Project." *Journal of Information, Law & Technology*, no. 1. http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2007_1/vle_report/#sdcndnote5sym.
- Boellstorff, Tom. 2010. *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human*. Princeton, N.J. ; Woodstock: Princeton University Press.

- Boon, Andy, John Flood, and Julian Webb. 2005. "Postmodern Professions? The Fragmentation of Legal Education and the Legal Profession." *Journal of Law and Society* 32 (3): 473–92. doi:10.1111/j.1467-6478.2005.00333.x.
- Brabazon, Tara. 2002. *Digital Hemlock: Internet Education and the Poisoning of Teaching*. Sydney: UNSW Press.
- British and Irish Legal Education Technology Association (BILETA). 1991. "Report of the BILETA Inquiry into the Provision of Information Technologies in Law Schools." University of Warwick: CTI Law Technology Centre.
- . 1996. "Information Technology for UK Law Schools: The Second BILETA Report into Information Technology and Legal Education." University of Warwick: CTI Law Technology Centre..
- Brown, John Seely, and Paul Duguid. 2000. *The Social Life of Information*. First Edition edition. Boston: Harvard Business School Press.
- Buxton, W. 1992. "Telepresence: Integrating Shared Task and Person Spaces." In *Proceedings of Graphics Interface '92*, 123–29.
- Cairns, John W. 2015. *Enlightenment, Legal Education, and Critique: v.2: Selected Essays on the History of Scots Law*. Edited by Elspeth Reid. Edinburgh: Edinburgh University Press.
- Canadian Bar Association (CBA). 2014. "CBA Legal Futures Initiative. Futures: Transforming the Delivery of Legal Services in Canada." Ottawa: Canadian Bar Association. <http://www.cbafutures.org/The-Reports/Futures-Transforming-the-Delivery-of-Legal-Service>.
- Castells, Manuel. 2009. *The Rise of the Network Society: Information Age: Economy, Society, and Culture v. 1*. 2nd Edition with a New Preface edition. Chichester, West Sussex ; Malden, MA: Wiley-Blackwell.
- Clegg, Sue, Alison Hudson, and John Steel. 2003. "The Emperor's New Clothes: Globalisation and E-Learning in Higher Education." *British Journal of Sociology of Education* 24 (1): 39–53. doi:10.1080/01425690301914.
- Collini, Stefan. 2012. *What Are Universities For?*. Penguin.
- Committee on the Future of the Legal Profession. 1988. *A Time for Change. Report of the Committee on the Future of the Legal Profession*. London: Bar Council/Law Society (Marre Report).
- Committee on Legal Education. 1971. *Report of the Committee on Legal Education*. Cmnd 4595 (Ormrod Report).
- Cope, Bill, and Mary Kalantzis, eds. 1999. *Multiliteracies: Lit Learning: Literacy Learning and the Design of Social Futures*. London ; New York: Routledge.
- Cownie, Fiona, and Raymond Cocks. 2009. *"A Great and Noble Occupation!": The History of the Society of Legal Scholars*. Oxford ; Portland, Or: Hart Publishing.
- Cuthbert, R. 2011. "Failing the Challenge of Institutional Evaluation: How and Why Managerialism Flourishes." In *Reconceptualising Evaluation in Higher Education: The Practice Turn*, edited by M. Saunders, P. Trowler, and V. Bamber. Buckingham: Open University Press.
- Eisenstein, Elizabeth L. 1980. *The Printing Press as an Agent of Change*. Cambridge: Cambridge University Press.
- . n.d. *The Printing Revolution in Early Modern Europe*. 2 edition. Cambridge University Press.
- Engelbart, Douglas C. 1995. "Toward Augmenting the Human Intellect and Boosting Our Collective IQ." *Commun. ACM* 38 (8): 30–32. doi:10.1145/208344.208352.
- Finlay, John. 2007. "The Lower Branch of the Legal Profession in Early Modern Scotland." *Edinburgh Law Review* 11 (1): 31–61. doi:10.3366/elr.2007.11.1.31.
- . 2009. "Lawyers and the Early Modern State: Regulation, Exclusion, and Numerus Clauses." *Canadian Journal of History* 44 (3): 383.

- Garrison, D. Randy. 2011. *E-Learning in the 21st Century: A Framework for Research and Practice*. 2 edition. New York, NY: Routledge.
- Gillies, James, and Robert Cailliau. 2000. *How the Web Was Born: The Story of the World Wide Web*. Oxford: Oxford Paperbacks.
- Hamilton-Baillie, Ben. 2008. "Shared Space: Reconciling People, Places and Traffic." *Built Environment* 34 (2): 161–81. doi:10.2148/benv.34.2.161.
- Harris, P., S. Bellerby, and P. Leighton. 1993. "A Survey of Law Teaching 1993." London: Sweet & Maxwell/Association of Law Teachers.
- Harris, Phil, and Martin Jones. 1997. "A Survey of Law Schools in the United Kingdom, 1996." *The Law Teacher* 31 (1): 38–126. doi:10.1080/03069400.1997.9992967.
- Harvey, Lee, and Jethro Newton. 2004. "Transforming Quality Evaluation." *Quality in Higher Education* 10 (2): 149–65. doi:10.1080/1353832042000230635.
- . 2007. "Transforming Quality Evaluation: Moving On." In *Quality Assurance In Higher Education*, edited by Senior Researcher Don F. Westerheijden, Bjørn Stensaker, and Assistant Professor Maria João Rosa, 225–45. Higher Education Dynamics 20. Springer Netherlands. http://link.springer.com.virtual.anu.edu.au/chapter/10.1007/978-1-4020-6012-0_9.
- Haywood, J., Anderson, C., Day, K., Haywood, D., Land, Ray and MacLeod, H., 1998. Uses of TLTP Materials in UK Higher Education for HEFCE. Report for External Body, vol. 39, Bristol: Higher Education Funding Council for England.
- Hine, Christine M. 2000. *Virtual Ethnography*. 1st Edition edition. London ; Thousand Oaks, Calif: SAGE Publications Ltd.
- Hughes, Michael, Helyn Gould, Patricia McKellar, Paul Maharg, and Emma Nicol. 2008. "SIMulated Professional Learning Environment (SIMPLE). Programme Final Report." Glasgow: University of Strathclyde. <http://simplecommunity.org/wp-content/uploads/2010/11/SIMPLE-FINAL-report.pdf>.
- Jackson, Bernard. n.d. "Report of BILETA Inquiry into the Provision of Information Technology in UK Law Schools."
- Jackson, Cathie. 2001. "SPTL/BIALL Academic Law Library Survey 1999/2000." *Legal Information Management* 1 (02): 28–39. doi:10.1017/S1472669600000426.
- Jones, Richard. 1993. "Second International Conference on Substantive Technology in the Law School." *International Review of Law Computers & Technology* 7 (1): 237–39.
- Knott, Philip. 2010. "Becoming a Lawyer: Entry Level Training for the Legal Profession." *Nottingham Law Journal* 19: 42.
- Land, Ray, and George Gordon. 2013. "'To See Ourselves as Others See Us': The Scottish Approach to Quality Enhancement." In *Enhancing Quality in Higher Education: International Perspectives*, edited by Ray Land and George Gordon, 81–93. International Studies in Higher Education. London: Routledge.
- Laurillard, Diana. 2001. *Rethinking University Teaching: A Conversational Framework for the Effective Use of Learning Technologies*. 2 edition. London ; New York: Routledge.
- Law Society of Scotland. 2015. "Number of Scottish Solicitors Reaches All-Time High | Law Scotland." Accessed May 27. <http://www.lawscot.org.uk/news/2014/11/number-of-scottish-solicitors-reaches-all-time-high/>.
- Legal Education and Training Review (LETR). 2013. "Setting Standards: The Future of Legal Service Education and Training Regulation in England and Wales."
- Leighton, Patricia. 2014. "Back from the Future: Did the LETR Really Prepare Us for the Future?" *The Law Teacher* 48 (1): 79–93. doi:10.1080/03069400.2013.875308.
- Lord Chancellor's Advisory Committee on Legal Education. 1996. *First Report on Legal Education and Conduct*. London, ACLEC (ACLEC Report).
- Maharg, Paul. 2003. "Professional Legal Education in Scotland." *Georgia State University Law Review* 20: 947.

- . 2008. "Professional Education and Training Programme, (PEAT 1 & 2): Educational Practice Guidelines." Edinburgh: The Law Society of Scotland.
- . 2011. "Sea-Change." *International Journal of the Legal Profession* 18 (1-2): 139–64. doi:10.1080/09695958.2011.619857.
- Matasar, R.A., and R. Shields. 1995. "Electronic Law Students: Repercussions on Legal Education." *Valparaiso University Law Review* 29 (2): 909–33.
- Mayer, John. 2005. "Codec: Lowering the Barriers to Inter-institutional Distance Legal Education." *The Law Teacher* 39 (1): 82–92. doi:10.1080/03069400.2005.9993173.
- Murray, Sarah, Susan Procter, Jan Reed, and Hazel Sedgwick. 1996. "An Investigation of the Components Used to Calculate Staff:student Ratios in Nursing and Midwife Education." *Nurse Education Today* 16 (4): 245–55. doi:10.1016/S0260-6917(96)80107-9.
- Nelson, Theodor Holm. 1999. "Xanalogical Structure, Needed Now More Than Ever: Parallel Documents, Deep Links to Content, Deep Versioning, and Deep Re-Use." *ACM Comput. Surv.* 31 (4es). doi:10.1145/345966.346033.
- Paliwala, Abdul. 2005a. "E-Learning and Culture Change: The IOLIS Story." *The Law Teacher* 39: 1–15.
- . 2010. "SOCRATES AND CONFUCIUS: A LONG HISTORY OF INFORMATION TECHNOLOGY IN LEGAL EDUCATION." *European Journal of Law and Technology* 1 (1). <http://ejlt.org/article/view/12>.
- . n.d. "Changing Paradigms of the E: Communication, Governance and Learning." *Journal of Information, Law & Technology* 2 (2005b). <http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2005-2-3/paliwala>.
- Paterson, Alan A. 1988. "The Legal Profession in Scotland. An Endangered Species or a Problem Case for Market Theory?" In *Lawyers in Society. The Common Law World*, edited by Richard L. Abel and Philip S. C. Lewis, 76–121. London: Beard Books.
- Peachey, Anna, Julia Gillen, and Daniel Livingstone, eds. 2010. *Researching Learning in Virtual Worlds*. 2010 edition. New York: Springer.
- Phipps, Ronald, and Jamie Merisotis. 2000. "Quality on the Line: Benchmarks for Success in Internet-Based Distance Learning." Washington DC: Institute for Higher Education Policy. <http://eric.ed.gov/?id=ED444407>.
- Podgers, James. 2015. "Lawyers Struggle to Reconcile New Technology with Traditional Ethics Rules." *ABA Journal*. Accessed June 8. http://www.abajournal.com/magazine/article/the_fundamentals_lawyers_struggle_to_reconcile_new_technology_with_traditio/.
- Quality Assurance Agency (QAA). 2015. "QAA Safeguarding Standards and Improving He Quality of UK Higher Education." <http://www.qaa.ac.uk/scotland/qualityframework/default.asp>.
- Ross, David, Lorraine Walsh, Darren Comber, Ginny Saich, Ray Land, and Colin Mason. 2007. "How Is It for Us? Living with Quality Enhancement Strategies in Scottish HE -- a View from Educational Developers." *Educational Developments*, SEDA Staff and Educational Development Association, 8 (3): 1–5.
- Saunders, M., J. Machell, N. Lent, C. Sin, P. Ashwin, S. Williams, P. Trowler, and M. Yorke. 2010. "Second Annual Report of the Evaluation of the Quality Enhancement Framework: Thematic Summary. Deliverable D5 and D6. October 2010." Lancaster: Lancaster University.
- Saunders, Murray. 2006. "The 'presence' of Evaluation Theory and Practice in Educational and Social Development: Toward an Inclusive Approach." *London Review of Education* 4 (2): 197–215. doi:10.1080/14748460600855526.
- Saunders, Murray, Paul Trowler, J. Machell, S. Williams, and N. Lent. 2006. "Enhancing the Quality of Teaching and Learning in Scottish Universities. The Final Report of the First

- Evaluation of the Quality Enhancement Framework to the QAA." Edinburgh: Scottish Funding Council.
- Scott, Colin. 2012. "Regulating Everything: From Mega- to Meta-Regulation." *Administration* 60 (1): 61–89.
- Serby, Tom. 2011. "Willing Suspension of Disbelief: A Study in Online Learning Through Simulation, and Its Potential for Deeper Learning in Higher Education." *Liverpool Law Review* 32 (2): 181–95. doi:10.1007/s10991-011-9095-z.
- Shrubsall, Vivien. 1995. "Training Tomorrow's Solicitors - The Legal Practice Course and Beyond." *Bracton Law Journal* 27: 16.
- Stevens, R. 1972. "American Legal Education: Reflections in the Light of Ormrod." *Modern Law Review* 35: 248–61.
- Streibel, Michael J. 1989. "Instructional Plans and Situated Learning: The Challenge of Suchman's Theory of Situated Action for Instructional Designers and Instructional Systems.," February. <http://eric.ed.gov/?id=ED308844>.
- Suchman, Lucy. 2006. *Human-Machine Reconfigurations: Plans and Situated Actions*. 2 edition. Cambridge: Cambridge University Press.
- Susskind, Richard. 1998. *The Future of Law: Facing the Challenges of Information Technology*. New Ed edition. Oxford: OUP Oxford.
- . 2013a. "Provocations and Perspectives, LETR Briefing Paper 3/2/2012." <http://letr.org.uk/briefing-and-discussion-papers/index.html>.
- . 2013b. *Tomorrow's Lawyers: An Introduction to Your Future*. Oxford, United Kingdom: OUP Oxford.
- Turkle, Sherry. 2005. *The Second Self: Computers and the Human Spirit*. Twentieth Anniversary Edition edition. The MIT Press.
- . 2013. *Alone Together*. First Trade Paper Edition edition. New York, NY: Basic Books.
- Twining, William. 2014. "LETR: The Role of Academics in Legal Education and Training: 10 theses1." *The Law Teacher* 48 (1): 94–103. doi:10.1080/03069400.2013.875309.
- Webb, Julian. 2015. "The LETRs (still) in the Post: The Legal Education and Training Review and the Reform of Legal Services Education and Training -- a Personal (re)view." In *The Futures of Legal Education and the Legal Profession*, edited by Hilary Sommerlad, Sonia Harris-Short, Steven Vaughan, and Richard Young, 97–138. Oxford ; Portland, Or: Hart Publishing.
- Webb, Julian, and Donald Nicolson. 1999. "Institutionalizing Trust: Ethics and the Responsive Regulation of the Legal Profession." *Legal Ethics* 2: 148.
- Westerheijden, Don. E. 2013. "Achieving the Focus on Enhancement?" In *Enhancing Quality in Higher Education: International Perspectives*, 39–48. International Studies in Higher Education. London: Routledge.
- White, Su. 2007. "Critical Success Factors for E-Learning and Institutional Change—some Organisational Perspectives on Campus-Wide E-Learning." *British Journal of Educational Technology* 38 (5): 840–50. doi:10.1111/j.1467-8535.2007.00760.x.
- Wilson, J.F. 1973. "Memoranda from Prof G.P. Wilson and Prof J.F. Wilson for Discussion at Special Meeting of SPTL." November 1973, A.SPTL. 26, 2.
- Woolgar, Steve. 2002. *Virtual Society?: Technology, Cyberbole, Reality*. Oxford ; New York: OUP Oxford.
- Worthington, Frank, and Julia Hodgson. 2005. "Academic Labour and the Politics of Quality in Higher Education: A Critical Evaluation of the Conditions of Possibility of Resistance." *Critical Quarterly* 47 (1-2): 96–110. doi:10.1111/j.0011-1562.2005.00617.x.
- Yorke, Mantz. 1994. "Enhancement-led Higher Education?" *Quality Assurance in Education* 2 (3): 6–12. doi:10.1108/09684889410071078.