Northern Ireland
Legal Quarterly
Vol 76 RST (2025) 1–14
Reflections on Teaching DOI: 10.53386/nilq.v76iRST.1250

Teaching ≈ Learning ≈ Regulation

Paul Maharg
Manchester Metropolitan University
Correspondence email: p.maharg@mmu.ac.uk

INTROIT

I came to legal education later in life. My first degree was in the Arts (literature and language mostly, with minors in history – Glasgow University, 1974–1978), and my doctoral thesis was a study of late nineteenth-century literature, aesthetics and philosophy at Edinburgh University. Later I undertook a postgrad qualification in teaching, and a Diploma in Education (Glasgow) and taught adults in a range of part-time posts for six years or so, ranging from adult literacy classes to tutoring medical doctoral students in thesis-writing. When I came to study law, therefore, I entered the postgrad programme at Glasgow University law school for two years of concentrated legal studies (1990–1992), rather than the usual undergraduate three-year Ordinary LLB or four-year Honours LLB programmes.

Coming from my background, those two years were a dislocating experience. The quality of education was variable (with some inspirational exceptions – see below); its structure unimaginative – the same framework of lectures and closed-book exams for most subjects – and its curriculum dominated by private law. The programme was heavily teacher-centred, and transmission of knowledge was the central activity.

Perhaps the first surprise I had was the way that subjects – Delict, Commercial Law, History of Scots Law, and so on – were treated as standalone entities in the curriculum. There was little or no linkage between them – for example, History of Scots Law had no links with Jurisprudence; the cases we were expected to read for early modern Conveyancing lectures were not contextualised by History of Scots law or Commercial Law. In my first degree in the Arts, it's true that courses were quite separate, organised chronologically or by topic/theme. But there were imaginative cross-cuttings. A historical sense of genre arose from the study of forms such as *carpe diem* poetry across centuries of the genre; the early modern development of the English novel drew on comparative literatures – Cervantes for instance. Mostly I didn't question any of it as an Arts student because it was my first degree and I knew no better. Having studied education in the meantime, though, and learned from the research literatures on curricular studies, the absence of

joined-up curricular thinking in law was striking.

Another problematic was the relative absence of inter-disciplinarity. As Arts students in English literature we were encouraged to be interdisciplinary. For example, in a course on eighteenth-century poetry we studied English country-house garden design as a context for the genre of country-house poems, which was useful for earlier examples of the genre too, for example, in the previous century Ben Jonson's 'To Penshurst' or Andrew Marvell's 'Upon Appleton House'. Before I started as a law student, I had no idea what legal thinking looked like from the inside. I did have a sense of law as being an interdiscipline, though, entwined with many disciplines, social issues, situations. But I came to know that by living as an adult in a western and northern democracy, as a person who had first-hand experiences of the laws of tenancy and employment rights, and in matrimonial law. The law curriculum seemed to have stripped this context away.

Reflecting on these experiences, what I was encountering was a set of assumptions about the nature of legal education as comprising a series of signal *episodes*. This included students matriculating, arriving at a lecture, taking notes at that episode for another episode called an examination, multiple times, and then graduating. Episodic education defined the place of the law school as a social institution, one that, like schools in western/northern traditions, reduced the complexity of learning through ordered classes taking place within a specific material location so as to control discourse and discipline; and accompanied by an almost complete absence of student agency.

Affective, social contexts are seldom considered in episodic learning, and rarely is serious thought given to their existence through time. Lee Shulman described this well:

> [t]oo often teaching is identified only as the active interactions between teacher and students in a classroom setting (or even a tutorial session). I would argue that teaching, like other forms of scholarship, is an extended process that unfolds over time.[1]

According to Shulman the unfolding of that 'extended process' involves vision, design, interactions, outcomes and analysis. Vision is not to be confused with mission statement: it is clear that Shulman is thinking more of a penumbra of qualities and values. Design in episodic learning, though, is not a process similar to design in, for instance, architecture, where there are multiple real-world factors that have to be acknowledged and managed. It is a black box, focused

1 Lee S Shulman, 'Course anatomy: the dissection and analysis of knowledge through teaching' in Pat Hutchings (ed), *The Course Portfolio: How Faculty Can Examine their Teaching to Advance Practice and Student Learning* (Routledge 1998) 5.

largely on knowledge content and evaluation of its acquisition.

As a result there was a wider implicit sense that legal education itself was an episode, and not really part of law's project – pass through the LLB and the Diploma in Legal Practice, and that's your education as a lawyer more or less over and real life begins, bar some CPD.[2] Legal education was an introit, the action of going in, the antiphon or psalm sung at the start of Mass. Moreover, the episodic approach erased legal education as a *topos* worthy of study. Scots Legal History was a subject, had lectures and an exam. So did Legal System, and Jurisprudence. But legal education had no place in the curriculum, though arguably it included aspects of all three and much more: education, psychology, sociology, Scots culture. There was little sense communicated to students of what legal education was about – what it was trying to achieve, why, to which purposes, how it had self-reflexively evolved in Glasgow across time, with its long traditions of legal education stretching back centuries.[3]

The temporal dimension to assemblages in a curriculum is critical in another sense. Staff plan their subjects *outwith* the time of the teaching semester; students experience their subjects only ever *within* that time, and therefore in a synchronous, chronological sequence, and across the syllabi of the curriculum. If subjects are designed as individual containers, students move through them experiencing multiple mini-narratives of education that can be bafflingly different, and they have an all too brief span of time to enter and understand the expectations they embody. Staff find it hard to project how students will experience syllabi across the curriculum; students find it difficult to think back into the mode of a planner to discover what staff are trying to do when they enact the subjects as lecturers, tutors, assessors.

What was missing was a sense of legal education as a *system*, in which there are multiple layers of almost limitless cross-references between subjects across the potentially four years of study; and where there are views of a systemic operation of law in society. Systems thinking involves us in considering actors within it, and what they do. One approach might be to take an actor-network theory of the curriculum that explores the differences between:

2 There was little reference to the legal professions in Scotland. Conveyancing lectures were reasonably well attended on the whole but there was a full house for a guest lecturer, a QC. Not because of his specialist topic – crofting law, I believe – but because he was already a distinguished member of the Faculty of Advocates. What did that look like, we students wondered, how did it think, talk, behave?

3 John W Cairns, *Enlightenment, Legal Education, and Critique* (Edinburgh University Press 2015) chs 5–9, 'The development of the Glasgow law school'.

- the curriculum as planned by subject leaders and programme director;
- the curriculum as enacted or carried out by tutors, lecturers, administrators;
- the curriculum as experienced by students.

Thinking of students as actors in a systemic network shifts thinking from individual subjects to a dividual curriculum.[4] System thinking takes holistic views of legal education, fosters interconnections, introduces the dynamics of feedback loops, maps frameworks and learning outcomes, and has the potential to create rich alternative pathways through a curriculum.

But something more is needed, for the complex nature of learning cannot be entirely encompassed by systems, however much systems may improve over singular episode thinking. What systems thinking often has difficulty with are the personal, intimate, real-world complexities of study, knowledge-formation, skill-learning, the dividual forms of assessments, well-being, and much more. What is needed is complexity thinking, which rejects the illusions of control and fixity we may inherit from both episodic thinking and systems thinking. It emphasises non-linearity and emergence. It admits of the ideas that education is more uncertain and unknowing than we often admit; that what staff teach isn't necessarily what is learned; and that what is learned in a hidden curriculum can indeed sometimes be the opposite of what we teach, particularly when it comes to ethics, attitudes and skills.

Two examples … When I became a director of the Diploma in Legal Practice in the Glasgow Graduate School of Law, a joint graduate school between the law schools of Glasgow and Strathclyde universities, I was involved in substantial curriculum redesign. Running the new programme for the first time, I felt like I was flying blind: I needed to know how students experienced the programme I had designed. Course feedback came too late to be much use in that year and was too formal and programmatic. I asked three

4 On actor-network theory, see Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network Theory* (Oxford University Press 2005). The dividual/individual contrast stems from anthropological comparative studies carried out in the 1950s and later by Louis Dumont and others into the differences between Western and Indian subjects. Karl Smith summarises the dyad helpfully as follows: 'The individual is … monadic, while the dividual is fractal; the individual is atomistic, while the dividual is always socially embedded; the individual is an autonomous social actor, the author of his or her own actions, while the dividual is a heteronomous actor performing a culturally written script; the individual is a free-agent, while the dividual is determined by cultural structures; the individual is egocentric, and the dividual is sociocentric.' Karl Smith, 'From dividual and individual selves to porous subjects' (2012) 23(1) Australian Journal of Anthropology 50–64.

students to keep diaries and paid them to undertake interviews and give interim feedback on many aspects of the course. Two dropped out, one completed. What that student revealed was profound. At times it was as if he were on a different programme to the one I had designed. I learned so much from his diary of what to change, how, when and for whom. His diary and interviews became a way of overcoming the temporal barriers described above. And the experience taught me the valuable lesson of learning from failure and taking quick action on it even, or rather *especially*, in the midst of a programme.

Second example: when AI became available to students and academic staff became aware of its use by students in assessments, the first responses of law schools was to limit or ban its use. This didn't solve anything and only exacerbated the problem of passing-off in the monocultures of remote examinations. Complexity thinking acknowledges the imbricated problems of learning, its social, affective and intellectual contexts across the curriculum, and takes as much of that context into account before taking action. That action would include serious research into what AI can be used for, sensing how it will change education, and what we can do to co-opt the technology into learning, teaching, feedback and assessment – more on that below.

The shifts from episodic thinking > system thinking > complexity thinking are a way of describing the many extraordinary changes that law schools have undergone in the last 35 years or so. It's less of a journey, more like Shulman's extended process unfolding. I think of it as a constant, shimmering, shifting aurora of attitudes, assumptions, cultures that crystallise around each of the nodes, and that all actors in law schools move among. The relationships of learning to assessment, for example, are intimate ones, where there are consequential links between types of learning activities and types of assessment. If a course is teacher-focused then assessment is often teacher-centred, not learner-centred. If learning follows a transmission model of education then assessment will focus on what's supposed to have arrived or been transmitted. If learning is assumed by teachers to be carried out by individuals only rather than in groups, then assessment will focus on the individual and their product, and ignore collaborative activities, peer-review, and self-review of process.

Of my experience of being a student at Glasgow it could be argued that I underwent a basic education in law only because mine was a postgraduate qualification, and I did not participate in the more sophisticated and specialised classes offered at Junior and Senior Honours. That was certainly true. But my point is that socio-legal, jurisprudential, historical, rhetorical matters belong just

as much in first year as they do in later years – perhaps, given the grounding in method and enculturation that occurs in the early months and years of study, even more so. And that such an introit is an introduction to an education in justice as well as an education in law.

Other disciplines have learned this lesson. In medical schools, PBL (problem-based learning) generally starts in first year; often in first semesters students are in placements in GP surgeries and hospitals. This systematic approach signals to students that medical scientific knowledge is not the only thing that they need learn: they need to experience healthcare systems, how we treat and care for patients, the observation of methods and practices of professional skill, the ethics of both medical practice and medical research, and much else. To apply this to the legal curriculum – PBL is not a heuristic for later years alone: it should be part of the curriculum from day one. York Law School's PBL curriculum is a leader in this regard. And there are other methods and contexts that can be made available to students – simulation, habitual skill-practice in a spiral curriculum, clinic, professional research communities, prefigurative legality projects, subjunctive jurisprudence, to cite just a few.[5]

Legal education has changed significantly and for the better in many ways since the 1980s in almost every jurisdiction. Research has improved markedly in volume and quality.[6] But it is probably still the case that radical educational theory and praxis is seldom considered by most law schools. Pedagogy, it is true, has moved from being dismissed as mere classroom technicism imported from another discipline, which was not part of either law talk or talk about law. But I would argue legal education has a long way still to go before it enters into its rightful place as a *jurisEducational* subject in the curriculum. Dewey reminded us that philosophy and education cannot be treated as separate disciplines or as distinct

5 On simulation see Karen Barton, Patricia McKellar and Paul Maharg, 'Authentic fictions: simulation, professionalism and legal learning' (2007) 14 Clinical Law Review 143–194. For an example of professional research community work, see Hasok Chang, 'Turning an undergraduate class into a professional research community' (2005) 10 Teaching in Higher Education 387–394. Prefigurative legality projects are discussed by Amy J Cohen and Bronwen Morgan, 'Prefigurative legality' (2023) 48 Law and Social Inquiry 1053–1082. For subjunctive jurisprudence, see Ben Golder, 'The politics of legal form: an essay on subjunctive jurisprudence' 0 Australian Feminist Law Journal 1. All are related to earlier seminal work by the philosopher Hans Vaihinger – Hans Vaihinger, *The Philosophy of 'As If'* 2nd edn (Routledge 2021).

6 See Paul Maharg, 'Prometheus, Sisyphus, Themis: three futures for legal education research' in Ben Golder et al (eds), *Imperatives for Legal Education Research: Then, Now and Tomorrow* (Routledge 2021).

categories of thought;[7] but too often law school dirempts legal education from jurisprudence when it is actually interdependent and interconnected. Springing from that renewed fusion, education's radical nature can challenge the conceptual frameworks of law schools and their conventional discourses.

One of the ways we can do that in our material practices is by our research upon, and experiences with, digital technologies.

DIGITALIS

One of the outstanding learning experiences of my two years at Glasgow was Regius Professor Joe Thomson's Contracts lectures. He was organised, polished in his improvisatory delivery, charismatic and held me on the edge of my seat quite a few times by how he made Contracts an intellectually inspiring corpus of knowledge, even by the entry-level standard of the first-year course.[8] But he expected high standards of essay-writing from students and there was no clear sense of those standards, or how they were to be achieved. I approached him at the end of the Contracts course in 1991 and outlined a project to address that.

It was based on my own recent conversion experience to digital in education. After my undergraduate degree in the Arts I had kept in touch with my medieval literature tutor at Glasgow, Des O'Brien. Three years earlier, in 1988, he had introduced me to digital technologies. He was director of the STELLA project (Software for the Teaching of English Literature & Language and its Assessment). He showed me the text of Passus XX of William Langland's *Piers Plowman*, which he had typed with a 'word processor' into 'software' called Guide Hypermedia (produced by OWL – Office Workstations Ltd) and had annotated the text with – yet another exotic term – 'hypertext' links that made little text boxes pop up on the screen. In the boxes were more texts written by Des that explained to students the literary, historical and theological background to this extract from Langland's poem. I was astonished – entranced by it.[9] In the next few

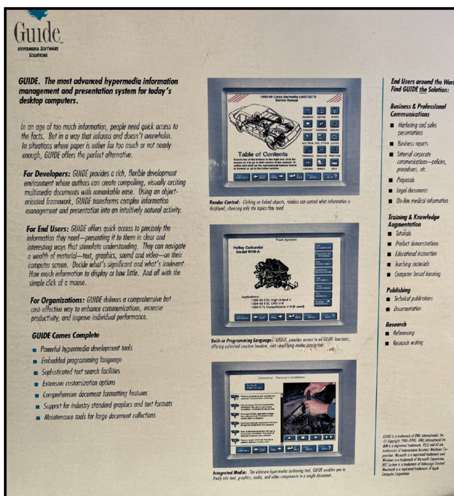
7 See, for example, Naoko Saito, 'Philosophy as education and education as philosophy: democracy and education from Dewey to Cavell' (2006) 40(3) Journal of Philosophy of Education 345–356.

8 Years later, we met at an Association of Law Teachers conference in a session called 'Whither the lecture?' or some such. He was defending lectures, I was opposing them. We talked beforehand and I frankly owned that I found his lectures inspiring in spite of my generally negative view of the heuristic. He agreed that university lectures were too often uninspiring. He said that in lectures he tried to make himself 'intellectually vulnerable' to his audience, which was a fine description of his method and his appeal to us students. It is a phrase that has guided me at many points in my own career.

9 For more detailed description of STELLA and my involvement in it, see My first experience of digital education.

years I used the software to create guides for students on how to write academic texts – literature essays for English Literature students, report-writing for Mechanical Engineering students, and the like.

What I outlined to Joe was a Guide Hypermedia program for which he would write the legal problems and what he considered excellent student problem-solving essays. I would supply commentaries for students around his texts on how to analyse the problem and how to achieve the standards of legal and compositional literacy required. I would submit it all to him for his approval and then code it all up in Guide. The program would be accessible to students in the newly installed computer lab in the Law School in Professors Square. He was intrigued, took me to lunch at the Glasgow Art Club where we discussed the details, seated beside the vibrant paintings of Peploe and Cadell on the wall. We'd retain intellectual property and assign a licence for the law school and any others who wished to use the program (named *Contracts*); Joe would advertise the program to his classes; I'd write guides for students and for staff in how to use it in their classes; and I'd write an article in due course to be published in a suitable journal.[10]



The Guide Hypermedia program

I used *Contracts* in the first-year Foundation Law class at Glasgow Caledonian University, in my first post as an academic. That year Moira MacMillan (the module leader) and I simply directed students to use the program as a writing aid. Very few did so, though those who did found it helped them. We knew the only answer was to embed it in the course. Students studied the module using a typical mixture of weekly lectures and a tutorial. The tutorial activities dovetailed with the points of law given in the lectures. So we integrated the program by using its problems as tutorial problems, reproduced in the module handbook, and asking students to consider how they might write problem-solving answers. After the tutorial I then held classes in a computer lab in which we discussed problem and solution within the program, and students' essay-writing generally. That worked well to improve student understanding of the

10 Joe, who cared little for and knew less of technology and machines (he refused to learn to drive), was pleased with the irony of co-authoring a software program.

complexities of legal academic literacy.

There was one unusual activity involving the student file in the program, called the Writefile, that needs more comment, namely invisible writing. At one point in the section on 'Writing and Reviewing', students could generate typed text they were not able to see: they typed into a blank screen. They could reveal their writing by clicking a special button in Word. They were asked to keep writing for as long as possible. The blank box has a number of advantages. It stops recursion in text production, that is, re-reading text constantly in order to try to determine the relations between what has been written and what may be written next. It helps writers to concentrate on the task of generating ideas, and keep them as coherent as possible, while preventing interference from the micro-tasks of reviewing which happen when a writer stops composing in order to review. Compositional scholars suggested that many students found it a useful activity.[11] It's certainly one that was easily designed on a computer interface. Embedding tools such as these within *Contracts* made the program less of a commentary upon a text, and more of a toolbox for learning new habits of writing and new ways of thinking about the writing process, too.

Within a few years the web overtook the proprietary software, Guide. *Contracts* was updated within a study skills and information technology project, CLASS (Courseware for Learning and Study Skills) at Strathclyde University, part of the UK-wide Teaching and Learning Technology Projects (TLTP) initiative in the mid-nineties. Web-based technologies were used to replicate Guide's hyperlinks. In time, the TLTP initiative and its programs became redundant as people moved on and technology moved on too. So too did higher-education (HE) technological project frameworks, in an alphabet soup of acronyms.[12]

The published article on *Contracts* I promised Joe was my first publication where I combined compositional research, digital technology and legal education. It was an apprentice piece of sorts, finding a voice that would weave the work of the compositional

11 See, for example, Stephen Marcus and Sheridan Blau, 'Not seeing is relieving: invisible writing with computers' (1983) 23(4) Educational Technology 12–15.

12 TLRP – Teaching and Learning Research Programme, funded by Economic and Social Research Council; FDTL – Fund for the Development of Teaching and Learning (a Higher Education Funding Council for England initiative); TQEF – Teaching Quality Enhancement Fund; LTSN – Learning and Teaching Support Network; CETLs – Centres of Excellence in Teaching and Learning; JISC – Joint Information Services Committee, the most opaquely named but undoubtedly the most influential body. All followed upon the general recommendations of the influential *Dearing Report* into Higher Education on the potentials of digital education: *The Dearing Report: Higher Education in the Learning Society*, National Committee of Inquiry into Higher Education, chaired by Sir Ronald Dearing (HMSO 1997).

researchers I'd read and admired (Linda Flower, John Hayes, Marlene Scardamalia, Peter Elbow) with critical educators (Freire), the burgeoning literature on hypertext, and the wider literatures on information studies, human–computer interfaces and digital education in HE.[13] Few of us at this time in legal education were piecing together the discourse in this way, or indeed acknowledged that this was a new discourse that required to be developed in the discipline.[14]

That discourse is still emergent, still being forged by the endless churn of digital development, theory, new empirical findings, and the constant refitting of legal education to cope with technological change. Seen in this context, digital is sometimes experienced as if it were *digitalis* – a plant that is attractive but toxic, fatally so for humans. But the powerful cardiac glycosides of the plant (particularly digoxin and digitoxin) can be life-saving for us, taken under the right conditions and in the right measures.

All technology in education has a similar dualistic, *doppelgänger* quality; and it is especially true of digital technologies. It is the early period of technology-introduction, the time of *incunabula*, when we first encounter the rawness of the new, that we are most aware of this quality (later, when we become inured to its presence we forget the past – a common feature of technology-introduction).[15]

We are passing through such a stage now with GenAI. Quite apart from many other economic and cultural changes, AI is altering the future of education across society. Learning in the workplace will not mean more training alongside

13 I found the ACM Conferences on Hypertext particularly inspiring. The conference proceedings included literary studies and scholars as well as technical computing studies. On information studies, the work of John Seely Brown and Paul Duguid was influential (John Seely Brown and Paul Duguid, *The Social Life of Information* (Harvard Business Review Press 2000)), as was Lucy Suchman on human–computer interfaces (Lucy A Suchman, *Plans and Situated Actions: The Problem of Human–Machine Communication* (Cambridge University Press 1987)).

14 In the early RAEs legal education was barely a recognised subdiscipline of legal studies, let alone the subfield of digital technologies and legal education within it.

15 The word means 'cradle' in Latin. It refers to the early period 1452–1500CE of moveable type technologies used to produce books in the north and west. See L Febvre and H-J Martin, T*he Coming of the Book: The Impact of Printing, 1450–1800* (Verso 2010), first published as G Nowell-Smith and D Wootton (eds), *L'Apparition du Livre* (D Gerard (tr), Editions Albin Michel 1958). *Incunabula* periods within particular instances of digital technologies are of course much briefer; but it could be argued that there is a broader spectrum of *incunabula* time that encompasses the whole period of digital technology introduction and use – however one may define the start of that period. As to its end – that is not possible to predict until we experience it. On technology and forgetting, see Audrey Watters, 'Memory machines and collective memory: how we remember the history of the future of technological change' (2017) EDUCAUSE Review (Online).

everything else. It will shift to become a seamless, integrated element of the work experience and AI is a critical tool in this shift. The idea of preparing for the future of work in dissociated, insulated learning episodes is shifting to the concept that work itself can be the engine of preparation for work.

The same is true of the future of learning in the academy, where students encounter the rich values and traditions of a discipline and its forms of thinking, communicating, acting, as well as the changing modes of knowledge interaction within those traditions. *Contracts* is a typical example of an intervention that extracted students from their tasks to help them learn skills. Its power as a learning episode improved when it was deeply embedded in a module, as we have seen. How much more powerful would it be if its advice formed part of an interactive AI agentic that critiqued student work within every module, and assisted them to think critically not just about their writing, but about the wider contexts of skills development, about which students are often quite insecure. Have I read enough to be able to write this essay well? What research should I be doing for it, and how should I carry that out? How should I take notes from that research and make it part of my own writing? How can I write persuasively? Develop a personal voice? And so on. AI can move beyond the metaphor of a toolbox for writing which was the best that *Contracts* could be at that stage of digital development. GenAI can become a confident companion for students on their individual and personal learning journeys.[16]

As I read more into legal theory and moved further into digital affordances in web-based technologies, and made connections between epistemology, compositional analysis, educational literatures and the histories of legal education, I became aware there were deeper, jurisprudential resonances to what we were doing with digital.[17] It related directly to the propensity of digital technologies to do two things. First, to increase the power that the contextual representation of textual meaning has to affect meaning itself. Second, to enable us to take creative swerves around the moveable-type revolution begun in the fifteenth century, and to revive sophisticated forms of reading and textual practices we can find in medieval manuscripts.[18]

16 An early version of such a figure appears in the 'Afterword' to Paul Maharg, *Transforming Legal Education: Learning and Teaching the Law in the Early Twenty-First Century* (Routledge 2007), where the student Anna is assisted by her avatar, Vicki.

17 This is explored in ibid, ch 7–9 and has been an ongoing theme in my work ever since.

18 See, for example, Mary Carruthers, *The Craft of Thought: Meditation, Rhetoric, and the Making of Images, 400–1200* (Cambridge University Press 2006).

REGULA

In Latin, the word denoted a ruler or a straight-edge tool, or a basic standard; which aptly expresses the dual quality of modern educational regulation – the sense of both measurement and standards. Programmes and their courses are full of micro-regulations – when to submit assessments, how to submit them, and so on – and standards are a key component of any assessment regime. As regards regulation of legal education itself, how it is conceived, formed, applied and changed are essentially larger sociopolitical acts by professional bodies. And the same constellation of approaches to learning that we constructed above (episode – system – complexity) applies also to regulation. A regulator who focuses only on a single programme or a single-issue problem will not appreciate the wider contexts of the episode. Applying systems thinking improves data and evidence and often offers a wider variety of linear solutions that can be applied to programme or problem. Complexity thinking goes further and encompasses wider social and cultural contexts, non-linear approaches, and creative, imaginative solutions.

How can we imagine such complexity approaches? Sydney Dekker gives a good example. Writing within the domain of safety sciences, he describes a jetliner as a complicated system, but one that can be assembled and disassembled because its components are ‘understandable and describable in principle’.[19] It becomes complex when working in real time, where the component manufacturer is unaware of the behaviour of other components in multiple complex environments.[20]

Regulation, like learning, is highly complex in its formation, actions and consequences. Complexity thinking needs to be adequate to the object of analysis – seeking to simplify is seldom a successful strategy. Dekker sets out how complexity theory can assist us to understand and act in the regulatory domain:

- In complex systems there is no clear ‘relationship between component behaviour and system-level outcomes’.
- In complexity theory the identification of a single

19 Sidney Dekker, Paul Cilliers and Jan-Hendrik Hofmeyr, ‘The complexity of failure: implications of complexity theory for safety investigations’ (2011) 49(6) Safety Science 939–945, 942.

20 Dekker (ibid) gives some examples of jetliner real-time complexities: ‘cultural diversity [of personnel], receiver-oriented versus transmitter-oriented communication expectations, different hierarchical gradients in a cockpit and multiple levels of politeness differentiation ..., effects of fatigue, procedural drift ..., varied training and language standards ..., as well as cross-cultural differences in risk perceptions, attitudes and behaviour’. Quoted in Paul Maharg, ‘The Gordian Knot: regulatory relationship and legal education’ (2017) 4(2) Asian Journal of Legal Education 79–94.

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 occur as 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 LLB Evidence of different stakeholders having different 'objectives' for the review
Every attempt at a solution 'counts' 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 LSET system to operate as a relatively low trust environment

Table 1: Understanding LSET reform as a socially complex problem.

narrative as a truth-narrative is impossible.

- Research into both failure and success requires us to piece together multiple perspectives in a complex system.
- Multiple narratives in complex systems will be repetitious, rarely coherent, sometimes contradictory.
- Narrative pluralism and diversity is not a fault: it 'offers more opportunities for learning'.[21]

In the Legal Education and Training report, addressed to the regulators Bar Standards Board, Solicitors Regulation Authority and CiLEX, we summarised that complexity in the following terms. Applied in the report to legal services education and training (LSET), I would argue that Table 1's left-hand column at the very least can apply to all forms of legal educational regulation, and all forms of legal education.[22]

21 Ibid.

22 Julian Webb et al, *Setting Standards: The Future of Legal Services Education and Training Regulation in England and Wales* (Solicitors Regulation Authority, Bar Standards Board, LEX Professional Standards 2013) 5.

Neoliberal approaches to quality and its regulation are too often inherently individual, dismissing the dividuality and complex diversity of our cultures in HE; and imposing a framework of values that have little to do with the rich cultures of the dividual student, teacher, institution, discipline. Instead of imposition and straight-edges, I would argue that much more of regulation ought to be about culture shift and balance. Regulators need to identify the culture that they wish to encourage in legal education and plan to bring that about. It also needs the balancing of vision with reality: with the aspirational and felt desire to do what is best, balanced by the reality of what actually exists in the field and how what is there might be changed with practical and real results for the better. Such planning will always include persuasion, negotiation and pragmatic shifts.

Key to this is the idea of planning networks and communities that will develop and sustain such change and infuse it into already existing networks and practices. The issues that arise from regulation are less about the nature of regulation in terms of command and prohibition (regulation as straight-edge, or legislation) and more about the formation and nurturing of social relations around methods and standards (regulation as culture change). In this sense teaching, learning and regulation are uncannily, inextricably, near-equivalents of each other – hence the double tildes in the title of this brief essay.