

Elective affinities: experience, ethics, technology, collaboration

I believe that the community's duty to education is, therefore, its paramount moral duty. ... [T]hrough education society can formulate its own purposes, can organize its own means and resources, and thus shape itself with definiteness and economy in the direction in which it wishes to move.

Dewey, (*EW*, 5, 94)

Spaces have values.
Lessig, (1999, p.64)

Conclusion

This final chapter takes heed of Bourdieu's timely admonition that we should not 'fall into the trap of offering a programme' (Bourdieu, 1998, p.56). A general programme of action, a development plan – these are rarely applicable to specific local circumstances. If we are to take the lessons of situationists, phenomenologists and pragmatists, we should perhaps advocate methods rather than plans.¹

I said in the Introduction that my approach was sympathetic to a pragmatist approach to legal education, and strongly influenced by John Dewey. All of the approaches described in Parts 1 and 3 are aligned on this perspective. My interpretation of the failure of realist experiments in chapter four also contributes to this perspective. But in general terms, what might pragmatist legal education look like, and how could it transform legal education? We can begin to think about this by taking as a definition of contemporary legal education William Twining's admirably concise – and over 25 years later, still relevant – summary of the scene:

In all Western societies law schools are typically in a tug of war between three aspirations: to be accepted as full members of the community of higher learning; to be relatively detached, but nonetheless engaged, critics and censors of law in society; and to be service-institutions for a profession which is itself caught between noble ideals, lucrative service of powerful interests and unromantic cleaning up of society's messes.²

Twining describes the triple bind we find ourselves in. Where might we start with this situation? A strong pragmatism would probably plan to start with the last phrase – with society's messes. What are they, who are involved, what are the contributing problems, how are lawyers involved in them, how can students begin to understand the causes and effects in their complexity? Next, and working back, their 'cleaning up' resolution, via clinic, placement and other forms of experiential learning we have not yet really considered – solutions for whom, when, and under what conditions? At the same time one could analysis the source and nature of those 'powerful interests', the noble as well as ignoble

¹ Compare also the position of the blogger who deliberately has no hosted blog listed on the blogdex, but who instead comment-blogs on other blogs, leaving a conceptual trail across the internet. See Matthew (2003).

² Twining (1982, p.2) quoted in Boon & Levin (1999, p.154).

ideals, and so on – moving, in other words, from situated practice to critical framing. In general, a pragmatist programme of study would start with situated practice – the experience of law in society – not a case-dialogue about this, nor the resumption of client or victim narratives into the formal discourse of judgment and due process, not even an educational taxonomy of skills and knowledge components, but the mess itself. It would enable students and staff not merely to achieve critical framing of this experience by working its way back to legal science, but back again to the social situation in a to-fro motion.

This approach is nothing new: problem-based learning is one version of it. How might we better understand it, and operationalise it as a method? The following are observations as to how we might begin to transform our educational practice in four key areas: experience, ethics, technology, collaboration.

Experience

Perhaps the first thing we ought to do is stop using the phrase 'teach them to think like lawyers'. As Rhode pointed out, all too often this means teaching students to think like law professors (Rhode, 2000, p.36). After half a century of legal educational and jurisprudential research and comment there is no concept in this phrase that will stand scrutiny for long. We need to subject it to *post mortem* examination, before burying it, preferably in the same lair as the black-letter tradition³

More seriously, experiential learning is the foundation for the development both of professionalism and a commitment to democratic behaviour, whether in clinic, simulation or some other method. But as Dewey realised, commitment to democracy means embodying that commitment in the educational forms and values we use everyday within education. Ralph Sleeper makes this point well: what mattered for Dewey in all human activity, he observed, was 'the emergence of logical forms from *the practice of inquiry*' (p.202, my emphasis). Dewey's radical form of pragmatism was profoundly democratic because deep within its experiential method, his pragmatism possessed a 'ground-map whereby [social] inequities could be identified and diagnosed, as well as a method for resolving them' (p.202). It is also a map for educational transformation, as radical now as it was over a century ago in the Chicago Laboratory School, and as relevant to us as it was to the realist experiments at Columbia.

How might we embed such experiential experiments in our curricula? Following Latour's interpretation of Pasteur (outlined in chapter two), and the example of Dewey's Laboratory School, our law schools should be our labs. This is what we have tried to do on the Diploma in Legal Practice in the GGSL: it is one of our key guiding principles. We need to engage in small-scale radical pilots, leading to larger trials, paying careful attention to how the contexts of law school, other disciplines, traineeship, legal community and the wider social community among many vectors affect our implementations. This is one way in which transformation can be brought about. It requires constant attention to emergent experiences and also (to adopt the forceful words of Garfinkel) the vexed problem of 'the practical objectivity and practical observability of practical actions and practical reasoning' (Garfinkel, 1991, p.11).

The primacy of experiential learning has long been recognized in other disciplines, and acted upon. As the recent Carnegie Foundation report on legal education in

³ Some may be more hopeful of resurrecting the corpse – Moran (2003), after all, has performed miracles with the 'reasonable person'. But the prognosis is not good – the phrase has shown no vital signs for some time now.

the US has re-asserted, we need to return to the fundamentals of such experiential learning, and learn from other professions, other disciplines.⁴ The authors point out that we still tend to view learning 'in an *additive* way, not an integrative way' (2007, p.9) when what we need is deep re-consideration of the curriculum so that students can move freely 'back and forth between understanding and enactment, experience and analysis' (2007, 10):

[i]f legal education were serious about such a goal, it would require a bolder, more integrated approach that would build on its strengths and address its most serious limitations. In pursuing such a goal, law schools could also benefit from the approaches used in education of physicians, teachers, nurses, engineers and clergy, as well as from research on learning. (2007, p.6)

This of course has implications for the teaching and learning of ethical behaviour: [i]n their all-consuming first year [of the JD degree], students are told to set aside their desire for justice. They are warned not to let their moral concerns or compassion for the people in the cases they discuss cloud their legal analyses ... The fact that moral concerns are reintroduced only haphazardly conveys a cynical impression of the law that is rarely intended. (2007, p.8)

Ethics

Toward the end of chapter eight I outlined how professionalism could be explored and learned within the transactional learning environment. Other professions have for some time now set about embedding the learning and practice of professionalism in their schools. David Stern, for instance, has argued, rightly I think, that the lists of values that describe what a profession regards as professionalism are insufficient because this implies a dialogue of practitioner with static, individuated qualities or values. Rather, professionalism lies in a much more dynamic ethical encounter, in the *negotiation of the conflict* of those static values, and in the management of that conflict. (Ginsburg & Stern; Stern, 2006)

The idea takes us back to Ferguson's position, negotiated in tension between the Stoic virtue tradition and the commercial values of contemporary Scotland. 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, as we saw, a negotiation of the boundaries of the soul and the city, and their perennial anxiety. And as we saw in the first case study of chapter one ('Representations of Law'), where there is no space for such negotiation, there can be little ethical learning worthy of the name. In chapter two, though, we saw the negotiation of values played out between student and role-playing standardized client in an arena where client-centredness was key. In chapters seven and eight we encountered narratives of ethical learning that arose from simulations where students learned not merely about the surface procedures of legal transactions, but about the deeper transactions: the complex passages between ethics and law, between collaborative relationships, and the anxieties of personal identity in moving into a professional cadre. In such simulations – a form of situated learning – there is the possibility of seamless learning between the levels of transaction, which

⁴ See Sullivan *et al* (2007). The report was published in full in late February 2007, just after this text went to print, and therefore I rely on the extensive 16-page summary provided on the Carnegie Foundation's website. The report is based of course upon legal education in US and Canadian law schools, but it contains many perceptive comments on legal education that most mixed and common law jurisdictions could learn from.

enables students to practise professionalism and encounter the ethical relation experientially (Breger, Calabrese and Hughes, 2004).

Ethics and experiential learning are inseparable. For Barnett, Ferguson and Rose an education that was not ethical in its basis was no education at all. As Rose makes clear from her autobiographical *Love's Work*, ethically challenging education is often inspirational in its effects, because it entails personal commitment, by staff as well as students – and when it is lacking, education can be perceived as a form of lifeless *anomie* (Rose, 1995, pp.129-34)

Dewey, as ever the acute observer of educational values in society, pointed out the role of the teacher as inspirer, whose role was undeniably social:

Whatever he as a teacher effectively does, he does as a person; and he does with and towards persons. His methods, like his aims ... are practical, are social, are ethical, are anything you please – save merely psychical (Cantor and Schomberg, 2002, p.6).

We can see this at work historically in the work of educationalists such as Dewey, Stenhouse and others; and in the work of contemporary educationalists such as Linden West and Barnett, in constructivists, situated theorists, clinicians and many others. The work of Engeström is a good example of how radical we must be. For him, the landscape of learning at work is changing significantly, and he calls for 'transformative, horizontal and subterranean' change, where education is 'embedded within work, and yet transcends it, bringing in tools for theorizing work and for constructing zones of proximal development' (Engeström, 2002).⁵ Transformations, of course, don't happen overnight. The sort of change envisaged by Engeström and others can only happen with the consent of the community. But is there not an ethical duty upon us to re-appraise our own role within our own community with regard to transformative change?

Our condition is described by Lessig in *Code and Other Laws of Cyberspace*. There, he defined two types of constitutions: the codifying constitution, which 'tries to preserve something essential from the constitutional or legal culture in which it is enacted'; and the transformative constitution, which 'tries to change something essential in the constitutional or legal culture in which it is enacted' (Lessig, 1999, pp.213-14). The codifying regime has its 'moment of self-affirmation'; the transformative is 'haunted with self-doubt', and is the more difficult to realize. One cannot exist without the other. In our practice as law teachers we need both, and often find ourselves in the broken middle between them; but we have to admit to ourselves that the codifying mode is much the easier default mode for living. Its structures are implicit; and for those in position and power life is just that much easier. And so this book argues for the transformation of legal education, for the revolutionary moment, and for acting upon the awareness, deep within ourselves, that many aspects of the *status quo* are no longer defensible, and that we need to work for further transformation, using whatever tools are at our disposal.

Which leads us to ask which tools *are* at our disposal, and whose tools are they?

Technology

Part 3 explored a body of practice and theory coalescing around the concept of transactional learning. It represents one attempt to negotiate imaginatively the

⁵ Again, Dewey, this time from an essay entitled 'Ethical principles underlying education': '[w]e need to translate the moral into the actual conditions and working forces of our community life, and into the impulses and habits which make up the doing of the individual.' (EW, 5, 83)

educational problems of agency, free will and identity; and to navigate between the poles of centralisation/decentralisation, the academy and legal practice, community and individual, and the like; and the Part 3 Conclusion takes a broad view of this whole endeavour. But the e-mergence of technology and transactional learning also has a deeper political and ethical purpose. Two accounts illustrate this. After the terrorist bombings in Madrid, popular opinion was mobilized against the government at a critical juncture just before an election, by the use of blogs and mobile phones, to organize street demonstrations in Madrid and in other cities across Spain. Ignacio Escolar, a journalist and blogger at the centre of events, described it as follows:

Almost spontaneously, more than four thousand people went out to support a call to protest that had gone out only hours before. By means of SMS message chains, blogs, electronic mail and discussion forums on the web the demonstrators were aware that people were massing. If 23 February 1981 was the 'night of the transistors', 13 March 2004 was the night of the web and activists.⁶

Escolar rightly points up the way in which the new communication channels, in the hands not of powerful media conglomerates or politicians but the people themselves, enabled the organisation of protest at short notice and thereby affected the political process of the election. Nor was the event in Madrid an isolated example of this phenomenon. The same pattern has occurred in elections in Kenya and South Korea.⁷ Howard Rheingold's concept of the 'smart mob', quoted by Escolar, is descriptive and predictive of the events that occurred in Spain.⁸ With such technology at their disposal, people have the tools to become not just passive, anxious consumers of information (the night of the transistors), but active and determined participators in a political process.

Escolar's account, of course, belongs to a genre of the sublime – the thrilling account of the cyberhacker and cyberprotester, and all those out in force against globalised capital at WTO and elsewhere. But as Dewey would have agreed, there are telling democratic issues for us here, both students and teachers. Technology has profoundly affected the history and use of ideas, not just in the substance of the idea but how it ideas are enacted in society. Where the printing press, as we have seen, revolutionized the spread of ideas in the fifteenth century, it helped to revolutionize society. Where printed posters were used in

⁶ Also reported in the Guardian (March 2004). My translation. Spanish text at: <http://www.escolar.net/>, March 19, 2004, entitled 'Tecnología y Movimientos':

De forma casi espontánea, más de cuatro mil personas salieron a la calle para respaldar una protesta que había sido convocada apenas unas horas antes. Los manifestantes supieron de la concentración mediante una cadena de mensajes SMS, a través de los blogs, del correo electrónico y de los foros de la Red. Si el 23F fue la noche de los transistores, el 13M fue la de Internet y los móviles.

The 'night of the transistors' refers to the occasion in 1981 when a military officer attempted a coup in the Spanish parliament, and in the absence of TV cameras, many people listened to their radios to find out what their political future might be. In a posting of March 30, Escolar summarised the debate that has surrounded his claim (http://www.escolar.net/MT/archives/2004_03.html), and admits that more traditional media such as radio may have played a part. Nevertheless, the increased volume of text messages and eyewitness evidence quoted by Escolar, Javier Candeira and others do reveal that SMS and other web media played a significant role in mobilising demonstrators. <http://www.escolar.net/MT/archives/000638.html>

⁷ One of the first signs of this was Steven Clift's posting to the Democracies Online Newswire (November 4 2002), commenting on the use of cellphones by politicians in the South Korean elections of 2002, and quoting an article by York (2002). Regarding the Kenyan elections of 2002, Clift cites Gologo (2002) on cellphone use and distribution during the election.

⁸ As Rheingold summarises the concept here, a 'smart mob' emerges when communication and computing technologies amplify human talents for cooperation. The impacts of smart mob technology already appear to be both beneficial and destructive, used by some of its earliest adopters to support democracy and by others to coordinate terrorist attacks. The technologies that are beginning to make smart mobs possible are mobile communication devices and pervasive computing - inexpensive microprocessors embedded in everyday objects and environments.

great numbers during the French Revolution, together with the huge increase in genres and quantity of print products, the speed of production served to overwhelm *ancien régime* channels and restraints.⁹ What is interesting about the SMS and web revolutions in the Madrid demonstrations is that they are, in effect, creating and re-affirming what E. P. Thomson, in his analysis of eighteenth century British riots, called the 'moral economy' of the crowd (Thompson, 1971). In the Madrid demonstrations technology was used to bring about social action on moral grounds in the face of democratic regulation (regarding the ban on political demonstrations just prior to an election). In a sense, then, the cultural situation is the reverse of the late eighteenth, early nineteenth century: where, 200 years ago, innovating technology often disrupted moral economies, in the twenty-first century wireless and web-based communication channels may serve to facilitate and sustain such a sense of collective values.¹⁰

Contrast this account of technology-as-liberation with a quite different story of technology-use. The power of technology to disseminate and persuade is very much a concern to governments in China and Saudi Arabia, amongst others, where free speech on internet websites, blogs and discussion boards is explicitly censored. In the case of China, censorship was effected over the course of several years, with the highly public collusion of Yahoo!, Google, Microsoft and other major corporations.¹¹ Information on human rights, Tibetan independence, Tiananmen Square, Taiwan and other 'sensitive' issues simply do not appear in the .cn domain, airbrushed from that sector of the internet in a much more effective form of censorship than ever the *ancien régime* achieved. In this account, technology is unquestionably used to oppressive ends (Zittrain & Edelman, 2003; Zittrain & Palfrey, 2005).

These two stories are polar opposites: the daily use of technologies by millions of us in common law jurisdictions lies somewhere on a spectrum between these two poles.¹² But as the research in the field of e-democracy begins to mature, one of the key questions for technologists and policy-makers is whether the internet can be used as a deliberative mode of communication for the construction of participatory democracy in the public sphere, as that sphere has been constructed by Arendt and others.¹³ As Benkler has observed,

A genuine shift in the way we produce the information environment that we occupy as individual agents, as citizens, as culturally embedded creatures, and as social beings goes to the core of our basic liberal commitments (Benkler, 2006, p.464).

⁹ Before the 1789 revolution in Paris, there were around sixty newspapers throughout France. As Schama points out, there followed an explosion of communication genres, both in type and quantity, following the overthrow of censorship (Schama, 1989, p.180). By the middle of 1792, for instance, there were around 500 newspapers in Paris alone. Many of them were short-lived, with a tiny circulation. But what is remarkable is the explosion of communication channels as well as the sheer increase in volume – newspapers and gazettes with a huge range of formats and tone; subscription journals; illustrated literature such as almanacs, copies of speeches, prints, engravings and the like. The sales figures also point to a remarkable literacy among the general population. As Schama remarks, 'literacy rates in late eighteenth-century France were much higher than in the late twentieth-century United States' (1989, p.180), and it was this literacy that, through the media of posters, brochures, reviews, journals, almanacs, fantasy novels, pornography and non-fiction of many kinds, fed the appetite of the people, in Paris and beyond, for information about the political and cultural events of the Revolution. For information on the power of the press, see Censer (1976). For a fine study of almanacs, see Welschinger (1884).

¹⁰ See also Noveck (2006, pp 257-282) for a description and analysis of civic cyberspace initiatives and concepts.

¹¹ See http://en.wikipedia.org/wiki/Google_China for information on China; and *The New York Times*, April 23, 2006, <http://tinyurl.com/re2cn>; and <http://www.internationalrelations.house.gov/>

¹² They are versions of the janus-face of technology, noted by, among others, Castells (2000). For an analysis of this and e-governance and learning, see Paliwala (2005)

¹³ Buchstein observes that 'viewed in terms of contemporary democratic theory, the positive qualities attributed to the Internet strikingly resemble the Habermasian unrestricted public sphere' (1997, pp.248-263, quoted in Agre, 2003).

These issues – democratic, ethical, political, rhetorical – require much more of our attention in legal education. Over the past few decades we have generally accepted the technology made available to us by our institutions and large corporations; or if we are uninterested in the matter, we have ignored it. We can no longer either accept or ignore it: we need to use it to transform our ways of working with our students, with society, with each other. Part 3 is a case-study in the transformation of the curriculum using technology. There are many other ways technology could be used – to facilitate student clinics, for instance, which would benefit hugely from practice management software adapted for their precise purposes and educational aims, based on careful analysis and specification of what students needed when and how, to support and share their learning within the community of the clinic. If students have placements with NGOs or as in-house trainees, how can technology support their work? Another instance is the provision of a form of online record of student activity that can be carried into their futures – an e-portfolio of their lives and learning experiences.

The internet can also be used to extend and deepen intellectual debate in society, and law schools have a place to play in the development of this. Hitherto, most law schools have largely used technology as repositories for information in the form of VLEs and MLEs. Occasionally there is discussion forum use; but on the whole, as Jos Boys has pointed out with regard to MLEs generally, technology is used to mimic traditional forms of university administration, teaching, learning and assessment.¹⁴ Yet we have seen in the discussion of rhetorical theory and medieval text the huge potential for the web to be a space for collaboration and sharing within our networked communications society. Such a genre of communication is potentially a widening of access to new forms of speech and writing that can contribute to a historically new form of public sphere. The Berkman Center for Internet and Society at Harvard Law School, for instance, has developed in their Openlaw project an Annotation Engine which, used with Twiki pages and collaborative forums, serves as the basis for

an experiment in crafting legal argument in an open forum [in order to] develop arguments, draft pleadings, and edit briefs in public, online. Non-lawyers and lawyers alike are invited to join the process by adding thoughts to the 'brainstorm' outlines, drafting and commenting on drafts in progress, and suggesting reference sources.¹⁵

The Cairns project is another such attempt to use the web in order to facilitate public discourse on politics, the law and other issues.¹⁶ We need many more such narratives of internet activity, where justice and democratic and participative practices and legal education are facilitated by technologies that, in one way or another, have the potential to transform lives.

Given the huge cost and culture change implications of all this, what can be done to bring it about?

¹⁴ Not for the first time, as we saw in chapter six with regard to incunables. As a result, the interpretation of the model of what a MLE could be (since there are many conflicting models of the environment) becomes seriously degraded to limited portal concerns. What have always been regarded as separate systems of learning services -- registry services, archival services, library functions, learning interfaces -- still remain so in the MLE, and the key opportunity for change, organisationally and technically, is lost. Indeed, Boys argues that 'the portal approach is taking hold *precisely because it enables institutions to avoid difficult questions about how they organise themselves*' (my emphasis, Boys, 2002, quoted in Maharg & Muntjewerff, 2002, pp.310-11). It is of course an example of *méconnaissance*, Bourdieu's description of the deliberate misrecognition by agents (1977, p.6).

¹⁵ See Berkman Centre for Internet and Society, Openlaw, at <http://cyber.law.harvard.edu/openlaw/>.

¹⁶ See Cairns Project (2007).

Collaboration

Collaborative student learning is scarcely new: throughout the book I have argued that we need more of it, and more of a research focus on how it can enhance learning within legal education. But I would also argue that there is insufficient collaboration between teachers, law schools and the profession, and in four areas in particular.

First, and at a policy level, we need to work with policy-makers to ensure that HE policy is aligned to its avowed intentions, and that those intentions are what we deem to be best for academic practice and the profession. In the UK, for instance, there is evidence that the RAE has served to lower the already low status of teaching and learning in universities, at a time when other Funding Council initiatives, eg HE Academy, are attempting to do the opposite (Trowler *et al*, 2005).

Secondly, academic and professional legal educational programmes need to integrate much more than any previous reports and consultation papers in the common law jurisdictions have acknowledged.¹⁷ There is much educational innovation and experimentation that takes place in the profession which would be of use to academic programmes; the reverse is also true; and there is probably insufficient knowledge on both sides as to how legal education and training has changed markedly in the last few decades in universities and in the profession. As Dewey put in an essay on culture and professionalism in education,

[f]undamentally we are co-workers. The more theoretical studies do not attain their highest development until they find some application in human life, contributing indirectly at least to human freedom and well being, which the more practical studies cannot reach their highest practicality save as they are animated by a disinterested spirit of inquiry. (MW, 15, 197)

Thirdly, academic programmes need to collaborate with other groupings within society. We need to be more interdisciplinary in our educational work other professions, other disciplines. We need much more in the way of interdisciplinary trading zones between institutions instead of competition, much more creativity and diversity, rather than conformity, of educational structures.¹⁸ Our cherished Rutlands and Rummidges must alter, become collaborative hubs of partnerships between law schools, between civic groupings and law schools, between the profession and law schools, between law schools and other professions, and this collaboration should extend internationally as well.¹⁹ The GGSL is an example, being a collaboration between the law schools of the universities of Glasgow and Strathclyde, and where partnership is at the core of what we do; but even this sort of collaboration is only the merest of beginnings. As a discipline we could do

¹⁷ The recent Carnegie Foundation summary report makes the same point (2007, pp.10-12).

¹⁸ To facilitate this, we need to develop research structures. The LLM at Warwick Law School is a good start in this direction. We need to take it further by, for example, developing a PhD programme with strong links to practice. Shulman *et al* have made a strong case for two types of doctoral programmes for education graduates – the PhD programme and the PPD, the Professional Practice Doctorate – each of them open to postgraduate students, academics, practitioners. There, they draw the comparison with the similar medical differentiation between the biomedical PhD and the MD, and present a strong case for the PPD. I would add administrators to the pool of potential candidates, for such job specifications have changed and are liable to change significantly in the near future under the impact of more technological implementation. Susskind's application of the concept of 'disintermediation' is one example of the types of processes that will occur.

¹⁹ Which in one sense is what Twining has called for. See also Jones (1997). Galison, discussing the MIT Radiation Laboratory, pointed out that its creation as a trading zone was 'an epistemic matter and ... a physical location', thus revealing the scale of the difficulty involved Galison, 1997, p.830).

much better, and must; and essential to this change is institutional leadership and global foresight.²⁰

Fourthly, we need to develop an open-access culture to our pedagogy and our materials, similar to that adopted by the MIT OpenCourseWare Initiative and, in the UK, the Open University's OpenLearn Initiative.²¹ We also need to develop theory and procedures that will support such interdisciplinary and inter-institutional initiatives. As Shulman pointed out, the 'signature pedagogies' of disciplines are critical to their practice.²² But pedagogies can be improved, refreshed, transformed by careful graftings and transplants from other disciplines and the professions. The SIMPLE project, described in the Conclusion to Part 3, is one example of a learning environment, formed in one law school's trading zone, that will soon be open to all; the Standardized Client Initiative (chapter two) is another, where the project resources are freely available from the Initiative's blog.²³ Swifter transformation can be brought about by the sharing of best practice and resources among us all.

As we saw in chapter one Galison proved that for collaborative inquiry and activity to take place between disciplines, there needs to be at least a set of procedures, a syntax, as it were. Transactional learning is one such theory. It turns away from self-referential learning outcomes, is future- and society-oriented in its concern for the *consequences* of legal theory and action. But transactional learning and pragmatic educational theory is only one version of what might be construed as effective theory and practice. As I said in the Introduction, this book exists as an invitation to readers to create such theory and practice from the rich historical traditions and contemporary variations within both legal education and education, wherever we find it and however it may be applied to our own local situations. If this book has contributed to this process it will have served its purpose.

Experience, ethics, technology, collaboration. This is not a programme, but an array of elective affinities within which transformation can take place. The title of Goethe's extraordinary novel, published late in his long life (1809), referred to the theory that the chemical properties of certain materials bond with each other. Goethe applied the metaphor to human relationships of love and desire in the novel, creating portraits not just of affinity and attraction, but of resistance and separation, too. On another view, Goethe brings together science and experience, moral duty over against desire, and many other dualities.

Teaching is an elective affinity. Like love, we are called into it, irresistibly. It is not egotistical, is based on dialogue with others. Its stories compel us back to

²⁰ International groupings have been formed of course for some time now: Universitas and IARU are current examples – see <http://www.universitas21.com/> and <http://www.iaruni.org/>. Such high-level international consortia have had mixed success, as Beerkens (2004) points out (p.258). I do not deny that there are many complex issues of autonomy and independence to be negotiated. But I argue here for much lower level and embedded consortia between disciplines and schools around projects that are of mutual benefit – as Beerkens says,

it is clear that cooperation in fields where it is seen as an inherent part of academia is more likely to be the standard than when cooperation is moulded on a business-like model. The cooperation that places emphasis on cross-cultural exchange and intercultural learning for students and staff is still most successful, at least in the higher education consortia in this study. (266)

²¹ For the MIT OCW Initiative, see <http://ocw.mit.edu/index.html>; the Open University's OpenLearn initiative can be found at <http://openlearn.open.ac.uk/>. Note that OpenLearn has available for users a 'remix' function and (as befits a second generation OCW initiative) is generally more interactive. For a discussion of open learning initiatives, see Brodie (2006)pp885-98.

²² As he puts it, 'if different disciplines value particular forms of evidence and argument, narrative and explanation, then their pedagogies should reflect the same forms of representation and exposition'. See Forward, vi of Huber & Morreale (2002).

²³ See <http://zeugma.typepad.com/sci>

the dialogue with ourselves, with students, with other teachers, those around us and the ghosts of many others stretching back decades and centuries. But in a deeper sense, just as cyberspace is a metaphor, so too is the idea of teaching. Both are fictions. There is no cyberspace, no teaching: there is simply communication and learning in all its forms, or there is nothing; what the best of our working lives consist of, when all other metaphors and conditions melt away. As a poet and lawyer once put it:

Phoebus is dead, ephebe. But Phoebus was
A name for something that never could be named.
There was a project for the sun and is.

There is a project for the sun. The sun
Must bear no name, gold flourisher, but be
In the difficulty of what it is to be²⁴

Notes toward a supreme fiction: the silken keyboard

He had been told that when looking for a good oracle it was best to find the oracle that other oracles went to, but he was shut. There was a sign by the entrance saying, "I just don't know any more. Try next door, but that's just a suggestion, not formal oracular advice"
(Adams, 1993, p.73)

From the window in her flat, Anna watched the torn storm clouds blow in from the west along the river, trailing curtains of rain across the city.²⁵ She sipped her coffee, thinking abstractedly as she often did that weather and place and character intersected, like music. If only her work could do that. A beep from behind her and she turned back to the table and touched the heavy silk oblong, connecting to the world beyond her window, her biodata read, her person and personality, whatever that was, joining the streaming millions of others²⁶. In the

²⁴ 'Notes Toward a Supreme Fiction', Stevens, 1978, p.381.

²⁵ Acknowledgements of plagiarism. To Nabokov's *Pale Fire*, where the interest is in the footnotes, not the text; to Alasdair Gray, whose *Lanark* contains a self-referential Epilogue confessing many plagiarisms woven into that brilliantly original novel; to Avrom Sherr's (2000) incisive account of the near future; to Boaventura de Souza Santos, chapter three of whose *Toward a New Common Sense* consists of two chapters, facing each other: 'The law of the oppressed: the construction and reproduction of legality in Pasargada' (verso) and 'Relationships among perceptions that we call identity: doing research in Rio's squatter settlements' (recto); and to Abdul Paliwala's (2001) inspiring account of student Maria. Six years on, we are still catching up with his future vision.

²⁶ Anna's desktop is rather different to those on our computers. It isn't a desktop so much as a holographic display in front of and around her, and designs custom content for her entire life. Her learning is part of every other activity and boundaries between real & virtual are so blurred that the idea of separate categorization would appear inexplicable to her. As one early commentator on this epistemological shift put it (quoting a movie, *The Matrix*),

There is no spoon. There are only social relations mediated by richly rendered communications platforms. The question of 'who should own this spoon:' should be understood as a question about what we want the social relations using the platform to be like'. Benkler (2006, pp.180-86).

In this way her whole computing environment is part simulation, part real life, and part very high-level programming environment. All her peers have a similar application, and in her learning life she is assessed at the end of her traineeship in part on the way she thinks creatively about the whole environment she uses online. Though perhaps 'online' is exactly the wrong word to use, since everything around her, including her clothes, the furniture, kitchen utensils, etc are part of the Grid. The concept of ubiquitous computing is so ubiquitous that she no longer thinks of it as computing, merely as a form of consciousness, an innate connectedness. Her grandparents could tell her of the days when there was no Grid, just paper and telephones, and later there were pagers, cell phones, laptops, PDAs (how did folk keep track of their lives with so many gizmos?); but it was hard to

air around her, faces smiled and beckoned her into their portals, but she ignored them. She spoke one word, 'Ardcalloch', and was taken to the virtual town's portal.²⁷ The weather there was pretty stormy, raining spattering the streets as it blew in from the river.²⁸

But wait. She zoomed in on a building site near the docks.²⁹ Her VF was acting for the project consortium there.³⁰ There didn't seem to have been much progress with the demolition of the small warehouse on the site. She paused, froze the image, then spoke: 'Active files, Construction, Project Data, 3-D deadlines, 31.3.47'.³¹ The documents appeared, dissolved and then reformed as

imagine such bewilderingly diverse environments. Anna accesses, drafts, alters, transfers, shares, manages sharing policies, saves and deletes data with an ease and mobility that is almost unimaginable to earlier generations. Consequently, the formal divisions between applications, interfaces and devices simply don't exist as mental constructs. Anna creates the flexible multi-modal interfaces she wants. She carries around no model of cyberspace, any more than we have a model of a telephone exchange when we pick up the phone. She has no need. In a world of near-invisible cameras, nano-sensors, micro-tracking devices, embedded bio- and RDF-tags and global positioning system chips she has everything she needs literally at her fingertips, and in her voice. Privacy regulation has grown apace to control this exponential increase in the creation and storage of data, and is now a substantial arm of government.

She is, though, a bit of a retro-freak, so she likes the idea of connecting to something that sounds like it belongs to late twentieth-century sci-fi, when most of her contemporaries have comms sewn into the fabric of jackets, and intelligent computers far more powerful than our own PCs the size of a button. The silken oblong is a hugely powerful computer, highly geo-context aware, and contains in its woven intelligence a representation of a keyboard – a piano keyboard – which she has customized to adapt to chordal gestures (she also uses it to play music, at which point she can surround herself with a noise-cancelling pod). It powers itself, like all such devices, *via* solar power and electromagnetic induction technology (electric toothbrushes were an early application in the last century) built into furniture, floors and walls.

²⁷ The town is fictional, and one of the most ancient of the internet applications, having been developed in the early years of the century by, among others, an eccentric legal academic who, colleagues recalled, preferred the reality of legal fictions to the fiction of legal realities. The webcams show a virtual environment such as can currently be created in applications such as Active Worlds – but immensely more real, and evolving in real time. The environment is peopled by training events, citizens of the fictional world, and so forth. Its hugely complex algorithms connect it to the real world around it. In history, politics, economics, culture, entertainment, topography and climate it shares the surrounding zoosphere. Anna can enter it and walk around its streets, its buildings, catch a tram, meet others within it (both human avatars and bots or robots – more of these below) and so on. It is a playground, a living space, working space, learning space. Or she can view it as if through camera, which is what she is doing now, to save time.

²⁸ The link between typical west of Scotland weather and virtual worlds is not coincidental. As was pointed out in *The Economist*, April 20, 2006, 'Wonders of the Metaverse',

Unlike earlier generations of video games, which appealed mainly to narrow demographic groups, *Second Life* is popular with women as well as with men, and with middle-aged people as well as teenagers. If there is a trend, Mr Rosedale [CEO, *Second Life*] says, it is perhaps that *Second Life* does best in places with bad weather, fast broadband connections and unexciting entertainment options. He considers British suburbs an excellent growth market.

²⁹ Zooming over actual topographies was already a commercial reality as early as 2004 – see <http://www.keyhole.com/>. She zooms by pointing her finger or hand towards the holograph image matrix, which recognises gesture-based interaction.

³⁰ VF – Virtual Firm. All law students in the recently-formed Law School of Scotland are assigned to virtual training firms, each of which is attached to a real firm. Their transactions are modelled as closely as possible on actual transactions. Trainees work on the transactions negotiated between them, the firm and the university. Anna is currently working on Construction Law, Property and Litigation, with specialist arbitration options in Health Care.

³¹ Voice recognition authenticating software syncs with her biodata readings to give her access to her VF files without need for further security clearance. The software employs 'software agents' (autonomous entities that can pro-actively process information in distributed digital environments), which are ubiquitous in all organisational structures – police, government, healthcare, education, etc. The avatar is based on a much more sophisticated version of this technology, with a model of space and cyberspace equivalent to our own. Here the software robot processes information silently for the user (unless there is a need to dialogue), and in collaboration with other software agents with whom it has been designed to collaborate. It collects information, knows how and when to present it, can summarise it, find elaborated versions of the information, check the integrity of the information, and check its own integrity and those of other agents. It can perform complex version-control tasks, and can operate in closed information systems (eg healthcare patient records within Ardcalloch, if it has authority), semi-open (eg electronic auctions) and open information systems. When it fails, it can

a hologram of the architect's three-dimensional representation of how the work should have progressed to date, data-displays integrated with the 3D building. She was right. When she touched the plan as it hung in the air before her the updated architect's plans resolved into images of a warehouse demolished, a cleared site and automatic diggers waiting to dig the foundations of the office building in a corner of the site. She checked back to the webcam image. Nothing of this appeared: the warehouse stood there, obstinate, derelict, black in the rain. She paused: what should she do? She quickly sent a note to her supervisor to let her know.³² She also made a note on the file to investigate later with Alastair, one of the three trainee architects in the virtual architecture firm in charge of the project.³³ Or maybe there was a Planning problem that had come up that she ought to know about before Planning Control in Ardcalloch got their teeth into it.³⁴ She remembered that Neil was in the Legal Dept there – perhaps he could be persuaded to let her know if there were problems with the documentation for the new development.³⁵ Basic facts first, then the research.

Meanwhile there was the international deal for Global Construction. She checked the file. No action for two days. Two days! She chorded the keyboard and her avatar appeared, welcomed her warmly, and scanned her face for details of mood.³⁶ 'Hi there, Vikki, she said neutrally. 'I want to talk to John'.

analyse its actions and report to AgentDomain. It self-heals if injured. If fatally damaged, it suicides. There was major litigation in the 2020s on the subject of agents which established that a simple 'bot' such as the one described above, was a *res not persona*. There is, however, an ongoing debate that the most advanced forms of avatars (much more complex than Vikki – see below) are approaching the status of sentient being, and should accordingly be treated as a human being.

Students and trainees are not the only ones with software agents, of course. As one of the first articles on the Semantic Web, way back in the early years of the century put it,

Teacher agents will track professional interests of teachers relating to their field of subject expertise, developments in new pedagogies with active evaluation and testing of pedagogical interventions. Teacher agents will assist teachers in routine marking tasks, record keeping, and document control for assessments requiring manual effort .

By 2047 they are common in every area of society. The Legal Resources course teaches students how to set up and fine-tune an agent for legal research.

³² Anna doesn't yet know it, but this is the start of one her most important challenges to date. Her supervisor has just gone on holiday, and Anna is going to have to handle a situation with builders, sub-contractors and local authority. An important completed building consent has not been lodged by the sub-contractor who has also neglected to inform the building contractor, and consequently the work is now falling behind schedule. How will she deal with this situation? Does she have the legal and business acumen, skills and initiative to deal with it successfully? She will argue, with good reason, that since the consent software automatically informs contractors of upcoming deadlines, and counts down the days to consent day, then the obligation lies with the contractor. The contractor will hotly deny liability, pointing to the sub-contractor and trade custom & practice.

³³ The School of Architecture use Ardcalloch for simulations of building projects and site planning. The Ardcalloch Educational Infrastructure Committee, which oversees all educational projects in the town, allows only a certain number of building projects in a year.

³⁴ Planning is under the control of trainee public administrators, who of course are in touch with their Legal Department in Ardcalloch.

³⁵ Neil is a friend who knew Anna from their Foundation Course. He is about to be put in rather a tricky professional situation by Anna, and his tutor in Debrief will be interested to know how he responds to this.

³⁶ Early agents, constructed in the 2000s, were based upon AI algorithms derived from the communications protocols of pilots and air traffic controllers. They were not successful. Only when agents were programmed on the more tacit procedures in codes of social etiquette did they become usable, able to allow for prediction and emotion in conversation, and take into account differences in language, culture and behaviour. See Miller (2004, pp. 30-34); Lester *et al* (2000, pp. 123-154). Tracking and understanding conversation was for long a holy grail of the telecommunications industries, and breakthroughs in natural language analysis took place a decade later. See Patch (2004). Sophisticated agents can cause problems for students, who can alter the appearance of the agent. Some students dislike them, some fall in love with them – such issues are dealt with in Debrief. See Patch (2004); Yu, *et al* (2004). Thus does life imitate art: in Philip K. Dick's novel *Do Androids Dream of Electric Sheep?* the hero Deckard, who hunts androids, falls in love with the near-perfect android Rachael, and begins to wonder if he too isn't android...

'He's busy, Anna' said Vikki.³⁷

'It's urgent.'

Instantly the scene dissolved and one of her student law firm partners appeared. 'Hi John – how did you get on with Gobal Construction's team yesterday?'

John glanced briefly to Anna before returning his gaze slightly to the side and over her shoulder. The path continued along the steep ridge up to the sky-line, heavily wooded on either side. Not a good place to stop, exposed to ambush, when the scouts had already seen movement ahead.³⁸

'OK. They're cool about the damages clause, but want more time to think about the arbitration stuff'.

'You mean they don't want to go ahead with the contract?'

Shapes among the trees to the left. 'Well, not just yet. I think it was the arbitration clause' Off the path, quick, into the brushwood. He signalled to Euan McPherson, and the highlanders dropped to the ground, working back towards the trees at the edge of Lake Champlain. Should get a message back to the main body, a mile or so back.

'But the arbitration stuff is pretty standard. Did you did tell them about the deadline the Malaysian firm gave us?'³⁹

The shadows resolved into flitting warriors. 'Yeah, but they weren't having it. Said they'd need to think about the ... the Selangor rules?'

Anna frowned; she knew nothing about this. Surely John could have...? She called her avatar whom she knew would be listening in, ever-watchful, until she was dismissed.

'Vikki, get me a copy of the Selangor rules, will you?'

Vikki appeared, then hesitated. 'Do you want the Professional Practice Rules of the Selangor Bar, the Selangor Cricket Club Rules or the Selangor Club rules?'

Anna checked the habitual thought about the literalness of the recent avatar-issue for a moment – actually, the media corporation people would probably

³⁷ John has signed he should not be disturbed, but can be available. He could if he wanted be completely non-available to Vikki or any other avatar.

³⁸ John is play-gaming. Anna has appeared in the landscape around him, though she is of course unaware that she has dropped into deep forest and swamp. It's impolite – people only do this when they're in a hurry to talk. Anna has used her avatar to drop into the game, instead of leaving a message for John that she wanted to speak.

³⁹ Global, a client of John and Anna's firm, are constructing an office block for a Malaysian media corporation (law students from a university in Kuala Lumpur act for them) on land owned by a CyberJaya property company, which is represented by a virtual firm from an Australian university. Anna and John have already done a lot of background work on this contract. Much of the tuition they received in their Transsystemia Law class was relevant to this type of global transaction. In fact, they both acknowledged this in Debrief, wondering how it was possible to be trained in just one jurisdictional practice, and be able to act in several cross-jurisdictional transactions, as they do here. Private International Law used to be the medium of such classes, or sometimes Conflict of Laws; but neither focused, anthropologically, on common problems in law. rather than common law problems; on procedures for moving between civil and common law systems, rather than learning differences between them – a point made some time ago. See Strauss (2006)

belong to the Selangor Club, and it might be no bad thing to get a little background on that.⁴⁰

'Selangor Club rules and the Bar rules please. Put them in the KL file' She glanced back to John.

'OK John. John.'

The edge to her voice did it.⁴¹ John froze the game, and dragged his eyes away from the looming trees. He'd need all his attention if the patrol were not to be wiped out.⁴²

'Sorry. All yours.'

'I think we need to discuss what's happening with this transaction. I got an email to say that the construction crew will be ready to start on the founds in Cyberjaya in a week's time. Every day we lose after that, we're going to lose money The way I see it we've got to persuade the Melbourne firm there's not a problem with the arbitration clause. They've *got* to accept that.'

'Yeah, I'll get in touch. Might not be easy.'

'I know, but if we don't then the contract's way behind and we've a lot of explaining to do in Debrief. This is the last transaction for me before I graduate, and I don't want to muck it up when there's a job in the firm hanging on it.'

Where?

Lisbon. Six month secondment.

⁴⁰ Anna is following good practice as explored in her Global Justice class, where she studied amongst other options Tiv justice, judicial reasoning in family law in the Gayo Highlands of Central Aceh, Indonesia, and organised crime in Taiwanese business. She is well aware that law is local knowledge, never more so than in global business (see Geertz, 1989, p.215), and is putting that knowledge to use in this transaction. She has studied the business background to the deal; but this is an interesting lead which will help her understand the nature of business dealing in KL.

⁴¹ There is an edge to the relationship, too. Anna controls, initiates. John plays the subordinate. Anna likes the high-profile role, John prefers the cool laidback style. But she irritates him nevertheless, and it's something he's not really come to terms with.

⁴² John has made the mistake of play-gaming when he should have been work-gaming. The firm do not discourage this activity, but they make it clear they monitor his performance in it if he indulges in firm time. When he returns to the game his patrol will be ambushed and several, including himself, killed by Iroquois warriors. Several weeks' worth of experience in deep-forest warfare as George Farquharson, lieutenant of the 42nd Highland Regiment will be erased from his record. Had he prepared more closely by scanning information in contemporary background texts such as *Sketches of the Character, Manners and Present State of the Highlanders of Scotland; with details of The Military Service of The Highland Regiments*, by Major-General David Stewart, Vols I & II, (1825), Edinburgh, he might have been better prepared for the encounter (these and many other texts are part of the game's realia library). Will he learn the lesson for his legal career? His supervisor will be discussing this with him in Debrief, during which the supervisor will quote Donald Schön: 'the situations of practice are not problems to be solved but problematic situations characterized by uncertainty, disorder, and indeterminacy' (Schön, 1983, 14-16.), and ask him to compare his performance in the eighteenth-century Indian Wars with his performance in the VF. It will be an uncomfortable meeting. It is of course the point that was made long ago in the last century, and is now taken as axiomatic:

"In order to become expert learners, students must develop some of the same insights as the psychologist into the demands of the learning situation. They must learn about their own cognitive characteristics, their available learning strategies, the demands of various learning tasks and the inherent structure of the material. They must tailor their activities finely to the competing demands of all these forces in order to become flexible and effective learners." (Brown, Campione & Day, 1982, pp.16-17.)

Others in the early twenty-first century pointed out the relationship between behaviour in online play and behaviour at work, and how the first could be an indicator of the second: Brown *et al* (2006).

'So you're not staying in Glasgow then.'

'Fed up with the rain.⁴³ Listen, I'll have another look at the contract. Could you contact me when you've talked to them?'

'Sure.'

OK, see ya.' His image dissolved.

The problem with play-game learning, she thought, as she turned to the window again, was boundaries.⁴⁴ Not with work-sim learning, there was a definite space, there, and if sometimes you weren't sure what was real and what wasn't, after a while it didn't matter. After all, the firm she belonged to was both a real firm and learning space, not only for her but for everyone else. The Final Debrief and its procedures and checks were the only things that separated her from the profession.⁴⁵ She remembered her mother telling her of her own legal education. You sat in lecture theatres for years, took notes from someone who stood up and talked at you for an hour at a time. Anna visited a reconstruction of one when she was on a school trip. So slow. Everyone copying notes down at the same pace. Convoy pace. Now, she had transactions to complete, reports, briefings, critiques, theory seminars, procedure labs and post-transactional debriefs with academics, senior partners, some of whom were academics, and other professionals and lay people. It was like the university mountaineering club she was part of, in between work – alpine-style ascents, light, seizing the moment and weather, not cumbersome expedition learning, just like the exams she'd heard about, great halls hushed quiet, her mother telling her about the essays they wrote. Essays... She enjoyed Montaigne in the Foundations Programme but who could reproduce the wit and the style? 'If I study, 'tis for no other science that what treats of the knowledge of myself, and instructs me how to die and how to live well'.⁴⁶

No, the problem was the boundaries with others in the firm. She spoke to the file then reviewed her comment to ensure it was balanced. She amended, then again. It wasn't that she didn't trust John, or maybe she didn't, but it had more to do with her wanting to do it all herself, just to be sure. Be careful, she'd been told in Debriefs: let go more. She called up the file and spent the next 40 minutes with the arbitration clause, researching it, reading the two sets of rules, annotating digitally, linking to other files and documents, and leaving it for John.⁴⁷

⁴³ The effects of global warming are being felt in every aspect of the UK economy. Ever since the early years of the century the weather patterns in the west of Britain have become steadily more unpredictable. Warm winters, hot summers in the early years gradually gave way to colder and stormier climate change as the Gulf Stream began to fade under pressure from colder currents down the Labrador coast as the polar ice-cap melted.

⁴⁴ Something John is yet to negotiate in his own life.

⁴⁵ The Final Debrief is only one of a long series of Debriefs. To mark the special occasion, it is held in one of the University of Scotland's ancient buildings, and takes place in front of a panel of nine, from university and the profession. Anna will sit in a chair called the Blackstone Chair, a Jacobean copy of a earlier medieval Chair, and whose name derived not from the black marble square set into the seat of the chair, but the medieval practice (which went back to the University of Paris in the twelfth century) of notifying students of their success (on which they were given a little white stone) or failure (a black stone) at the end of the oral examination. She will undergo an oral examination not too far removed in form from the medieval provenance of the Blackstone Chair, but very different in content.

⁴⁶ Quoting de Montaigne, one of the texts in her 'Renaissance Politics and the Personal Style' class (Carew Hazlitt, 1952, p.194).

⁴⁷ ... who will of course interpret this as interference and resent it – he feels she talks to him as if he were her avatar... Should she have done this work, or left it entirely for John, who has already carried out a substantial portion of the work to an adequate standard? Final Debrief will focus on this amongst other issues.

Final issue: the housing association. She spoke: Active files, Purchase, 11 Mackenzie Street, Ardoch'.⁴⁸ She opened the final entry, reviewed it, then entered Ardcalloch HA: 'Clare Riadan'.⁴⁹ Clare's familiar face met her. 'How's things Clare'.

'Pretty good. You got news for me?

'Yes, and it's the best. They've accepted our offer for the tenement block with accelerated entry.'

'Fantastic news Anna!

'-- and you've got the small-holding as well'.

'That's just brilliant. So what's next?'

'Well I need some documents signed by your HA Director – I have his details, so I'll write him and enclose the documents with guidance on signing.

Anna paused. 'What are you going to be doing next with the block?'

'The Rehab Plan's nearly finished. We're working with Henderson Gould Architects on the design –'

'— Oh I know one of them – Alastair, he's pretty good.'

'Yeah, we've had a couple of meetings already and he's come up with some really good plans for two- and three-bedroom flats using basically the same shell. And

⁴⁸ This is a block in the area of Ardoch, a conservation area within Ardcalloch. It consists of a unique experiment designed in the 1890s by Patrick Geddes, who was employed by Ardcalloch Municipal Council to come up with an answer to problems of poor housing and social welfare. It consisted of a planned living environment of small-holdings and tenements a unique answer to the problems of suburbs and inner-city tenemental living in Scottish cities – in effect, Scotland's first garden suburb. However, there was a debate as to whether the Council's Conservation Plan for the area precluded bodies such as the HA from owning property within the area. Anna presented the HA's case before the sheriff in Ardcalloch Sheriff Court, and won the case for the HA.

⁴⁹ Clare is a student studying a course on Housing Development & Management. Her portfolio includes the management of a tenement block in Rankeillor, and this development project in Ardoch – (over which she is liaising with Alistair, the architecture student). She engaged Anna as her legal agent for the acquisition of the block, dealing with issues such as sitting tenants (all of them 'avies' or avatars), purchase, etc. A property company (in effect another set of students studying land management courses) owned half the block, and the negotiation over acquisition has not been an easy one. Anna's law school – the Law School of Scotland – contains several dozen clinics which offer multidisciplinary practice opportunities for students to practise, ranging from the largest global law firms, to the smallest local providers of legal services, to public services, law clinics and in-house lawyering. (The Law School is a more radical version of the International Legal Centre proposed by Twining, as long ago as 1995). Clare is sponsored by the Strathclyde Housing Association, which is a community-based association in Glasgow; and in addition to supervised law students providing legal advice and assistance at all levels as an essential part of their own law course, the law school also provides free legal training to the Association and support for sim training in their housing courses. Law students are thus involved in the creation of training materials for other disciplines, professions, occupations. They perform this as an integral part of their course, and in the Foundation stage are taught how to create resource-based learning, sim-based training, and how to develop the use of avatars. They do this in conjunction with law staff and educationalists, who monitor and sign off on the results.

Clare is on Level 2 of her course. Once she has successfully dealt with the simulation at this level, she moves on to a more sophisticated set of issues and problems in Glasgow and elsewhere, and her meetings with mentors will become briefer and more complex. Like Anna, when she moves into level 3 she will find it difficult at times to discern what is real and what is not. But her mentor has reassured her that such issues, which tended to be seen in the past of problems of metaphysics, or language games, are now simply regarded as experiential and phenomenological data. Her Philosophy mentor, of course, disagrees...

now that we've got the block we're going to arrange Clerk of Works adverts & interviews as well – students from James Watt University and elsewhere I think – that'll be my first employment stuff, so I'll need some advice on employment procedures nearer the time. Is that part of your remit?'

'No, but I'd like it to be. That's where I want to be heading, career-wise. I'll discuss with my supervisor and get back to you.'

'That's great. Listen, I'm late for a briefing – can we meet up tonight at the bar?'

'Sure – eight o'clock ok for you?'

'Great – see you then.'

Anna edited and linked their conversation to the file, prepared and sent the documents to Clare's Director, then sent a note about employment electives to her supervisor. She had other stuff to research, but it could wait. She played a chord, and the bright displays in front of her shimmered and melted into thin air. She folded up the silken keyboard and put it in her bag. Time to go.