

Simulation Learning and Professional Legal Practice

Professor Paul Maharg

Glasgow Graduate School of Law, University of Strathclyde, Glasgow, UK paul.maharg@strath.ac.uk

OVERVIEW

This case study is a curriculum-wide implementation of simulation activities within a postgraduate, professional legal educational programme. It involves learning face-to-face using traditional resources such as books, and also involves online digital resources. While the use of the web to simulate a professional environment is nothing new in itself, our implementation of it and on this scale is fairly unique. In addition, the design and use of the online learning environment has led to the re-design of face-to-face interventions, derived from other disciplines, which are unusual in legal education. Accompanying the implementation is a developing body of theory, called transactional learning, which aims to describe and analyse forms of learning based upon all professional interactions, and which is relevant to both undergraduate and postgraduate courses.

INFORMATION ABOUT THE CLASS, MODULE OR PROGRAMME

In Scotland there are a number of routes to qualification as a solicitor or advocate. It is possible to sit examinations held by the Law Society of Scotland in what are known as the 'qualifying subjects', a pass in which qualifies the candidate to proceed to a postgraduate course in professional subjects, called the Diploma in Legal Practice. The commonest route to the legal profession, however, is *via* university study. In their undergraduate years, most students study for their LLB degree in one of a variety of routes stretching from 2-4 years, depending on their previous experience & pattern of study. This is followed by the postgraduate Diploma, which lasts for seven months - effectively a full academic year. All students then enter a traineeship of two years in a legal office, during which the Law Society of Scotland requires them to undertake a Professional Competence Course and, during their traineeship, to undertake the Assessment of Professional Competence.

The Diploma consists of eight subjects and one option - in the GGSL we have added another, namely the first in the following list:

- 1. Foundation Course in Professional Legal Skills
- 2. Civil Court Practice
- 3. Criminal Court Practice
- 4. Financial Services & Accountancy
- 5. Private Client
- 6. Professional Ethics
- 7. Conveyancing
- 8. Practice Management
- 9. Either Company & Commercial or Public Administration

In the later 1990s the Diploma curriculum underwent revision by the Law Society, with the result that a number of skills were identified as being crucial to legal practice, and which had been, hitherto, not sufficiently been the focus of the curriculum. The Society is keen to see the Diploma develop from what it was before, namely yet another academic course focusing on substantive and procedural law, into a programme of study where attributes, values and knowledge are integrated. The Society now requires providers to focus on a number of professional skills areas, namely:



- 1. Interviewing
- 2. Negotiation
- 3. Advocacy
- 4. Legal Writing
- 5. Drafting
- 6. Research

For more information, see Maharg (2004b). Currently, the entire professional programme (Diploma and traineeship) is under review by the Society which has recently completed an extensive consultation with the profession and stakeholders.

Last year there were 283 students on our Diploma. Many, though not all, of these students have studied law for four years, to Honours level. They are based in the Glasgow Graduate School of Law, in the Lord Hope Building of Strathclyde University. The GGSL is a joint graduate school of the law schools of the universities of Glasgow and Strathclyde; and the resources of the two law schools are pooled together to create the joint Diploma programme.

At the inception of the joint Diploma in 1999, there was one full-time member of staff responsible for most aspects of course maintenance and development and a secretary, in addition to a number of part-time Visiting Professors (also practitioners). There are now the equivalent of three full-time staff, and concomitant increase in administrative staff. Almost all of the classes that take place on the Diploma are taught by around 150 part-time tutor-practitioners. This is normal practice in the Scots Law Diplomas. However the greatest area of expansion in the GGSL is probably in the area of ICT (Information and Communications Technology). Here, we have increased our staff from a single network maintenance officer to a Learning Technologies Development Unit (LTDU), which consists of a learning technologies development officer, two applications developers, two multimedia and web designers as well as support staff. The reasons for this considerable increase in staffing will be explored below, as well as the effect that LTDU has had upon the programme of study.

Extensive paper-based materials have always been provided by the Law Society of Scotland for the subjects, which for the most part are composed of styles and explanatory text; but little extra for the teaching of skills was provided by the Law Society. This is especially true of what might be regarded as 'performative' legal skills, *ie* interviewing, negotiation, advocacy (Maharg, 2001). In addition, we required to take into account the forms of professional education at the cutting edge of other disciplines and professions, and adapt them to legal education.

DESCRIPTION OF THE CASE

It is difficult to describe briefly the scale of the simulation activities undertaken by students in this programme-wide simulation. For further comment see Maharg (2004a), Maharg (2006), Barton & Westwood (2006), Barton & Maharg (2007), and Maharg (2007a & 2007b, forthcoming). At the start of the year students are formed into groups of four, each one being a simulated law firm. The office consists of a document stores, comms, calendar and task management applications and other PIM tools. Their offices are situated in an information-rich virtual environment namely a fictional town on the web, called Ardcalloch. The town is represented on the web by a map, a directory, and a history that consists of an - irresistibly revisionist - account of Scottish history and Scots legal history (see figures below).

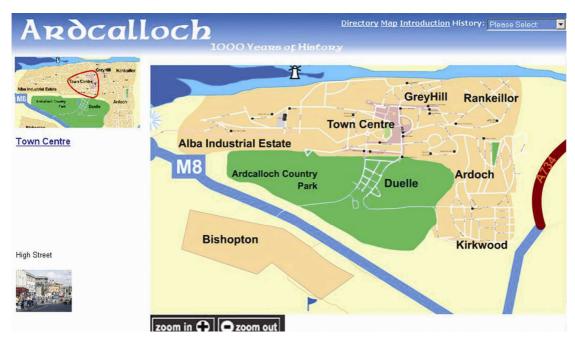


Figure 1: zoomable map of Ardcalloch



Figure 2: Ardcalloch directory





The name of the town is Celtic in origin. "Cailleach' means 'old women' or cowled women', possibly referring to nuns. There is a legend that the priory of St Cerulus was built on the site of an earlier Celtic foundation attributed to St Kentigerna, the daughter of Cellach, Prince of Leinster (early eighth century, d. 733). The island of Inchcailleach in Loch Lomond, where she died, is apparently derived from the same root. According to Nennius, a chapel, dedicated to her, and containing some of her bones, was erected some time in the eighth century. No trace of his has been found, though it is probable that the Premonstratensian foundation of St Michael in the fourteenth century was built upon the site of this early chapel. Nennius' account is corroborated by the *Orkneyinga** Saga** which relates that Earl Rognvald, great-nephew of Saint Magnus and builder of the foundations of St Magnus cathedral, on his crusade to the Holy Land, visited her shrine around 1132 to pray for his safe deliverance. St Kentigerna must have listened to the Earl, for he returned to Orkney two years later, after a remarkable series of adventures.

There is also evidence that Ardcalloch was originally a settlement which grew up around the Clyde crossing at this point in the river, which is the lowest crossing point for the major settlement on Dunbarton Rock, on the other side of the river. It would appear that in early medieval times it was possible to walk across the river at this point at low tide. There were local stories that marker poles were driven into the mud for this purpose; and indeed there are records made by James Watt that bear this out. During the work he carried out in preparation for his report on the river in the later eighteenth century, he recorded that "there are the remaines of wooden stakes driven deep into the mud of the river, from one side to the other as if put there for the purpose of guiding travellers across the river, else for the siting of fishing nets".

Watt's deduction was given corroboration in 1885 when workmen excavating a railway spur to the docks came upon a roadway of neatly laid stones, indicating a causeway that led down to the old ford. Local historians surmised that it was the Roman road to Dumbarton, and later archaeology has confirmed that this was indeed the direction of the road.

During the 1750s workmen repairing the roadway at the crossing point unearthed a hull composed of planks pegged to a wooden frame and set in a keel. From contemporary accounts it would appear that the vessel was constructed using viking techniques. The vessel was preserved in a house turned into a museum of the Clyde, which was later demolished by a bomb in World War II.

Figure 3: History of Ardcalloch, in seven drop-down pages

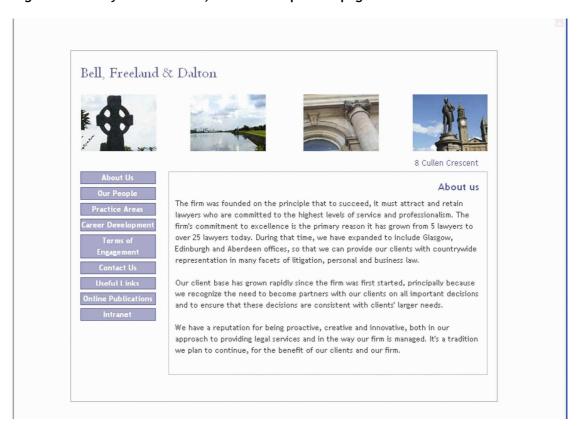


Figure 4: Virtual firm, generic front page

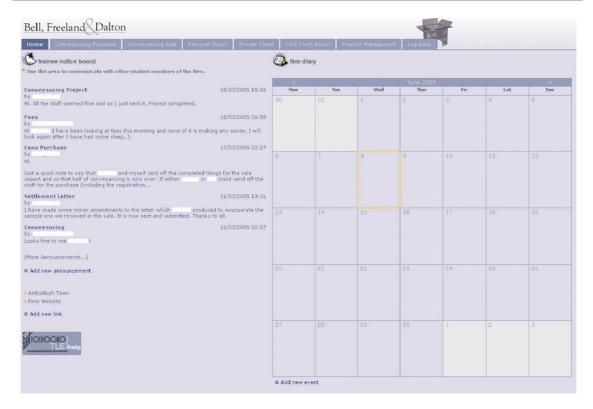


Figure 5: home page of student virtual firm.

Sited on the south bank of the Clyde, the town acts as a complex simulation of the reality that surrounds actual legal transactions. For example, in one transaction, Personal Injury (PI), the firms act for clients, either the injured claimant or as the insurance company's solicitors, in a personal injury negotiation that lasts almost a full semester (nine weeks in total). In order to negotiate the case they need to engage in fact-finding by contacting characters and institutions within the virtual community, and pooling the information they obtain. They then need to carry out legal research on issues such as liability and quantum; set out their negotiation strategy and perform the negotiation, either by email or through a face-to-face meeting. Discussion forums for both sides support students in the complex process of carrying out this legal transaction - one of our Visiting Professors, Charles Hennessy, who is a PI solicitor is on both forums to answer student queries and provide information. Postgraduate students are trained to answer emails in the guise of any one of around 12 different fictional characters, and to give the appropriate information to students. They are supported by an online forum where both Charles and I are present. If they wish, students can meet as a firm with either Charles or another negotiation tutor to discuss strategy and performance before they negotiate with the other side. This meeting is in effect a form of small-group, salon learning. It is voluntary: there are no face-to-face interventions at all, apart from an introductory and general feedback lecture (students can also, if they wish, obtain feedback on performance from file assessors at the end of the project)

Project construction is daunting at first. In the PI transaction, we now run 35 different transactions, based on the same underlying narrative. The differences are created by inserting key variables into the document sets (eg names, ages, wages, details of injuries, witnesses, etc), and running these through a document server to create 70 different sets of documentation for our 70 firms. Once the process has been learned, it is easy to replicate in future years; but the initial learning curve for staff (academic and admin) is steep.

This is only one of a number of simulations that use the Ardcalloch environment. Students also buy and sell property over the web (Conveyancing); they wind up the estate of a deceased client who has died without leaving a will and they draft a will for the executor (Private Client); they litigate a simple debt action in the Sheriff Court (Civil Court



Practice). The subject called Practice Management is now an over-arching subject where students liaise with tutors who are in effect practice managers, and therefore figures who both encourage and discipline the firm. Others are being planned, for example the setting up and winding down of a company. In each transaction students generate the case file that simulates the work that would be carried out in practice, and encounter the forms of ethical and transactional problems that would be there in a real transaction. The criteria of assessment thus vary (from whole-course experience and reflection, to whole case files, to individual files, to individual clauses within a document), as do the forms of assessment. In addition we are planning integration of face-to-face skills assessment of events such as client interviewing and advocacy training, having recently spent the last three years developing what is perhaps a unique experiment in adapting methods of station assessment from medical PBL, such as standardised client assessment (as in our Standardized Client Initiative - see http://zeugma.typepad.com/sci).

RATIONALE IN TERMS OF EDUCATIONAL IDEAS

What is the point of this form of learning, and what does it do? Well, first of all it simulates the reality of actual transactions. Note that we aim not for *replication* of reality, which would be an impossibility, but *simulation* of aspects of it. This allows us to focus on the elements that we want students to learn - in the PI transaction, for instance, these included problem-identification and solving, the integration of different bodies of substantive legal knowledge (Delict [including liability and quantum], Tax, Welfare Law), the skills of negotiation formation within the transaction, specific forms of letter-writing, and time management of the transaction, negotiation performance, and client-centred lawyering.

Secondly, it also allowed us to create open-field transactions (such as the PI transaction) which are in effect powerful problem-based learning environments; and bounded-field transactions (such as Conveyancing, where we supply students with template documents, and the transaction is much more linear and bounded by custom and statute) - see Barton & Maharg (2007) for more information on this, and the table below for more detail of the distinction we make.

		Bounded field	Open field
		ie transaction tends to	ie transaction tends to
1.	Learning	Precise learning outcomes,	Bodies of evidence required
	outcomes	with simulation tasks based	to be produced to benchmark
	(LOs) &	closely on outcomes - pre-	standards, but less emphasis
	assessment	defined LOs	on pre-specified outcomes
2.	Alignment	Teaching is aligned with	Teaching is provided where
	with	tasks and outcomes, often	needed according to
	traditional	according to an academic	learners' needs, often
	learning &	structure, eg lecture-	according to a professional,
	teaching	seminar; learning is heavily	just-in-time learning
	methods	'pushed' by curriculum	structure; learning is 'pulled'
		structure	by learners
3.	Operational	Linear domain procedures,	More varied, open or diffuse
	model	eg predictable document	domain procedures, eg
		chain - more operationally	transactional guidelines but
		predictable	no specific document chain -
			less operationally
			predictable
4.	Student	Specific documents, drafted	Procedures that involve a
	outputs	to specific standards, eg	variety of documentation, or
		initial writ; fixed or correct	documents that cannot be
		versions expected as student	specified easily in advance,
		output	eg negotiated agreements;
			various versions acceptable



5.	Resources	Resources are tied closely to	Simulation resources are not
		tasks and learning outcomes	linked to tasks; learner needs
		- highly model driven	to structure transaction
			through interactive querying
			of resources - highly learner
			driven

Table 1: bounded - open field transactions

Thirdly, it allows us to create environments that are both zones for learning and assessment, and which fulfil many if not all of the principles set out at http://www.reap.ac.uk/resourcesPrinciples.html. In addition, the environments are powerful learning and testing grounds for contested concepts such as professionalism. Such concepts, deriving from research into the culture of professional activity, do not fit easily into the structures of academic assessment (Stern & Papadakis 2006).

Fourthly, in examining the work of professionals it is clear that real professional life is about integration of knowledge into contexts which are changing continuously. That knowledge becomes valuable when it is contextualised in the narratives of professional experience. There is a considerable difference in emphasis in the notion and techniques required for professional development as compared to a technical approach to training. Professional education requires judgement rather than simple answers. This has been well articulated by Bevis & Watson (1990), who compared a technical model against a professional model for clinical nurse education (table below - from Maharg & Owen, 2007, forthcoming, citing Bevis & Watson, 1990).

Technical Model	Professional Model
The only learning worth evaluating can be seen as behavioural changes.	Worthwhile learning is often personal, obscure and private. Only some learning appears as behavioural changes.
Everything that exists, exists in some quantity, and therefore can be counted and measured.	Many things that exist are note externally verifiable.
The teacher-selected goals are the important ones, therefore the evaluated ones. Both teacher and student selected Important, therefore the evaluates ones	Both teacher and student selected goals are important, as is learning attained without goals.
Comparing behaviours to some objectively held criteria or comparing to the progress of other students determines how well something is learned.	Educative learning cannot be rated on a scale. Most learning cannot be compared either to some "objectively" conceived criteria or to the progress of other students.
The teacher-student relationship is hierarchical and the teachers assess students by how well they have met specific objectives.	The teacher-student relationship is egalitarian. Learning requires a process of trusting grades to exploration among expert and novice learners and thrives on constructive criticism.
The quality of rigour of a course can be determined by how well it helps its students meet the discipline requirements as reflected by test scores, attainment of behavioural objectives, and accreditation requirements, since these reflect the agreed-upon discipline content.	The quality of rigour of a course can be determined by how well it helps students collect paradigm experiences, develop insights, see patterns, find meanings in ideas and experiences, explore creative modes of enquiry, examine assumptions, form values and ethics in keeping with the moral ideal of the caring scholar-clinician,



advance the profession.

Table 2: Technical and professional models (Bevis & Watson, 1990)

Lastly, it enables us to create sim environments that follow many of the best principles of collaborative, holistic, problem-based learning. In assembling transactional projects we have shadowed the sophisticated research literature in medical PBL - for example, the debates on the nature and effectiveness of learning within simulation environments. We see ourselves as a tiny part of the great stream of constructivist projects (interpreting that term in its widest sense), stretching back through theory and practice such as that of Brown & Duguid, Lave & Wenger, the ethnographical cyber/identity revolution of the seventies & eighties (Bateman, Turkle); further upstream, the gathering watershed of Deweyan educational projects, grounded in democratic discourse (and in Dewey's ongoing project to navigate between the massive twentieth century ideologies of realism and idealism via pragmatism or instrumentalism); and reaching back, to the springs of Montessori, to Pestalozzi and further back still. And if we turn around and gaze into the future, it flows past us, part of the current multi-user virtual environment (MUVE) revolution, where 2D and 3D will merge: the convergence of hardware platforms, of mobile wireless and f2f learning, and the emergence of new forms of theory and practice in the interface between professional activity and academic activity, and between work and play.

EVALUATION

The environment is under constant review, as we take account of student feedback and add and amend features of the environment. Our information about student learning is derived from three sources. The first is end-of-module student feedback, taken from feedback questionnaires, which are reviewed annually. The second is student reflective reports, which are written for a module on Practice Management, and which provide valuable insights into use of the environments within the virtual firms (Barton & Westwood 2006). The third source is small, intensive project work on student learning (see McKellar & Maharg, at http://www.ggsl.strath.ac.uk/ltdu/research for an example) which has included the use of user logs and semi-structured student interviews.

With the exception of the early instantiations of the Conveyancing transactions, feedback has had high levels of approval from students. The aims of the environment are precisely those of the Law Society, the profession, and students themselves, who are about to enter the profession, and who recognize the need to practise in a safe environment the attributes and knowledge that they will be expected to practise for real in the coming years.

Secondly, such simulations enable 'situated learning' (Maharg 2001; Maharg & Paliwala, 2002). It is possible to simulate many of the aspects of real-life practice that students will find in traineeships. Is this important? Most certainly: expert law practice at any stage is not merely a matter of putting academic knowledge into practice. Legal practice changes that knowledge: it has to be re-thought, in order to be put into practice, and often many different types of knowledge and skill have to be juggled more or less simultaneously. Michael Eraut put this well when he said that

... the context of use also affects the learning of theoretical knowledge, and [...] it is misleading to think of knowledge as first being acquired and then later put to use. Not only does an idea get reinterpreted during use, but it may even need to be used before it can acquire any significant meaning for the user. Thus its meaning is likely to have been strongly influenced by previous contexts of use; and the idea will not be transferable to a new context without further intellectual effort. (Eraut, 1994, 51)

Indeed, many commentators would go further, and say that domain-specific knowledge and skills are in themselves insufficient. This has been proven over a wide range of occupations and professions: chess players, physicists and airline counter workers and just some



examples (Simon & Gilmartin 1973; Chi et al 1982; Stevenson 1996). Expert performance in any profession also requires competence in the norms and cultural practices that sustain and use professional skills and knowledge (eg Cheklin & Lave 1999). Thus, in the PI example above, students learn the skills of legal fact-finding (rarely a skill that is developed in undergraduate curricula), and practical legal research. They learn the structure of the transaction as it extends over time, and how they can shape that transaction. Above all they learn the practice-based ethics of pursuing or defending PI claims: who does what at which stage in the transaction, who ought to get what information from whom, and so on.

But in these forms of situated learning students learn more than merely the mechanics of professional practice. They also learn about their own interpersonal and collaborative skills. Extended groupwork over the course of a year, which is hardly ever practised in undergraduate courses, is an excellent preparation for professional practice. In Scottish firms, it is more and more the case that trainees work with other trainees and assistants in their firms, and the ability to do so effectively and professionally is essential. Students tell us in feedback that web-based simulations are an effective method of learning this. Some extracts from feedback on the PI transaction:

'I felt that one of the things we could have improved on was the checking of our correspondence before sending. On at least two occasions we had to send letters apologising for previous inaccuracies, or for mistakes to people we had sent letters to. In practice this would suggest a lack of professionalism, and would be unforgivable. It also led to inefficiency in the long run, wasting time on extra letters.'

"... if we had thought a little harder we could have minimised the number of letters we sent, by requesting all relevant information form a person in one go, rather than having to continually request further details. This was particularly true of our correspondence with Mr Graham, and in real life I suspect that a client would get a bit impatient if he was constantly harassed for more evidence. I did feel that we all lacked a little bit of experience in such matters; knowing what to ask for and from whom, and I am confident that this exercise has helped us in that regard."

'I found the whole experience to be extremely worthwhile. I believe it was a close as students will get to experiencing the 'real thing' before we commence our traineeships. It certainly taught us the importance of fact gathering before jumping in and trying to find a solution.'

'The negotiation project certainly helped focus attention on letter writing skills and general IT skills. There were functions such as the 'note to file' and attachments to emails that I was not familiar with at the beginning of the project, but now using them is second nature. Furthermore, where most projects/essays in the undergraduate degree have concentrated on testing your legal research skills; the negotiation project was probably the first assignment that I have done that has highlighted the importance of fact gathering. Finally the negotiation project gave you the opportunity to participate in the whole transaction from start to finish and take pride in the final settlement that you helped to achieve.'

More structured evaluations are under way in the SIMPLE (Simulated Professional LEarning) project. Funded by JISC and the HEA UK Centre for Legal Education (UKCLE), and in partnership with UKCLE and Futurelab, we are creating the second iteration of our simulation environment and implementing it over two years with multiple professions (law, social work, architecture) across eight different centres. The software we will create will in effect embody our seven years of experience, both educational and technical, of creating simulations in one discipline. The result of the collective expertise of the LTDU will thus be made available to those in HE and FE who wish to use it, for at the end of the project the open-source platform and associated toolset will be made available free to UK HE & FE institutions. To evaluate the first-wave use of the design and technology we are using baseline data from this current year, and closely monitoring use and feedback from staff and students in the coming year using a CHAT framework derived from Engerström's activity theory. The framework that activity theory provides will be used to provide



feedback to the SIMPLE project community to create formative revisions of the SIMPLE tool. It will also to support the implementing institutions with an understanding of how such a tool can be used more widely within a programme of study.

In all of this there are some questions we shall address that are part of the wider agenda of JISC, and anyone interested in simulation learning:

- 1. What factors contribute to the effectiveness of serious games and simulations in professional development
- 2. What are effective metrics and language for assessing professionalism?
- 3. What interventions need to be made to organise game and simulation based learning in HE institutions?
- 4. What pointers to the further development of tools for gaming and simulation in professional and vocational higher education emerge from the project?

These are questions that will help the developers create an effective tool for learners and the future developers of transactional learning environments. As will be clear from this summary of the evaluative strategies we shall adopt and the issues already surfacing at the first SIMPLE workshop, we intend to go beyond the 'application & transfer' approaches of cognitive studies, while taking account of the results of those studies. Our evaluations, though, will be more environmental, taking account of the factors that shape the ecology of culture change within an institution.

REFERENCES

- Barton, K. & Maharg, P. (2007) Simulations in the wild: interdisciplinary research, design and implementation, in *Games and Simulations in Online Learning*, edited by Aldrich, C., Gibson, D., Prensky, M., Part 2, chapter 6, 170-218, Idea Group Ltd, 115-148 (16,000 words)
- Barton, K. & Westwood, F. (2006) From student to trainee practitioner a study of team working as a learning experience, *Web Journal of Current Legal Issues*, special issue on Legal Education, edited by Spencer, M., http://webjcli.ncl.ac.uk/2006/issue3/barton-westwood3.html
- Bevis, E.O., Watson, J. (1990) *Towards a Caring Curriculum: A New Pedagogy for Nursing*, National League for Nursing, New York
- Cheklin, S., and Lave, J (1999) *Understanding Practice: Perspectives on Activity and Context*. Cambridge University Press, Cambridge.
- Chi, M.T.H., Glaser, R., & Farr, M.J. (1982) *The Nature of Expertise*. Hillsdale, NJ, Erlbaum
- Eraut, M. (1994) Developing Professional Knowledge and Competence. The Falmer Press, London
- Maharg, P. (2001) Negotiating the Web: Legal Skills Learning in a Virtual Community. International Review of Law Computers and Technology, 15, 3, 345-361
- Maharg, P. and Paliwala, A. (2002) Clicks and portals: negotiating the learning process with electronic resources. In *Effective Learning and Teaching in Law*, edited by Burridge, R. *et al.* Kogan Page, London
- Maharg, P. (2004a) Virtual communities on the web: transactional learning and teaching, in Aan het werk met ICT in het academisch onderwijs, edited by Anton Vedder, Nijmegen: Wolf Legal Publishers, 75-93
- Maharg, P. (2004b) Professional legal education in Scotland, *Georgia University State Law Review*, Summer, 20, 947-77



- Maharg, P. (2006) On the edge: imagining ICT and professional legal learning, Web Journal of Current Legal Issues, special issue on Legal Education, edited by Spencer, M., http://webjcli.ncl.ac.uk/2006/issue3/maharg3.html
- Maharg, P. & Owen, M. (2007a, forthcoming) Simulations, learning and the metaverse: changing cultures in legal education, *Journal of Information Law & Technology*
- Maharg, P. (2007b, forthcoming) *Transforming Legal Education: Learning and Teaching the Law in the Early Twenty-First Century*, London, Ashgate Publishing
- Simon, H.A. and Gilmartin, K.A. (1973). A simulation of memory for chess positions, *Cognitive Psychology*, 5, 29-46
- Stevenson, J. (1996). *Learning in the Workplace: Tourism and Hospitality*. Brisbane, Australia: Centre for Skill Formation Research & Development, Griffith University
- Stern, D. & Papadakis, M. (2006) The developing physician becoming a professional *New England Journal of Medicine*, 354, 1794-99



This work has been made available as part of the REAP International Online Conference 29-31 May 2007 and is released under Creative the Commons Attribution-Noncommercial-Share Alike 3.0 License. For

acceptable use guidelines, see http://creativecommons.org/licenses/by-nc-sa/3.0/

Please reference as:

Maharg, P. (2007). Simulation Learning and Professional Legal Practice. From the REAP International Online Conference on Assessment Design for Learner Responsibility, 29th-31st May, 2007. Available at http://ewds.strath.ac.uk/REAP07.

Re-Engineering Assessment Practices in Scottish Higher Education (REAP) is funded by the Scottish Funding Council under its e-Learning Transformation initiative. Further information about REAP can be found at http://www.reap.ac.uk