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Learning from Learning: The Dialogue of Virtual and Real Courts

*Karen Barton*

*Patricia McKellar*

*Paul Maharg*

*Glasgow Caledonian University*

- 
- [Substantive and adjective law](#)
  - [The Changing Frame of the Court in Cyberspace](#)
  - [Adjective Law and Strategic Knowledge](#)
  - [Teaching and Learning Procedural Law](#)
  - [Development of Software](#)
  - [Description of Software Use](#)
  - [Student Feedback](#)
  - [Document Drafting/Work Practices](#)
  - [Case Management and Role Change](#)
  - [Communications](#)
  - [Conclusion](#)
- 

### Abstract

This paper presents ways in which lessons learned from using technology in the classroom can inform the debate on forms of electronic administration in the court process. Using document assembly techniques and email, our CBL program the *Virtual Court Action* emulated a civil court action, using identical personnel, legal documents and procedure. The process of a court action was thus computerised in ways very similar to the computerisation of a real court administration system.

Through designing and implementing the *Virtual Court Action* and evaluating feedback from the students two important consequences became apparent. First, a number of critical issues regarding communication, training and work practices became much more visible than they were before. Based on the evidence we have gathered from the project, we will examine some of the positive benefits as well as the potential drawbacks which need to be considered if electronic communications among lawyers and between lawyers and courts are to become accepted practice.

Secondly, it became clear that the lessons we were learning about IT in legal educational simulations could be applied to communication, training and work practices in real court situations. Taking a broader approach, we became aware that the expanding use of IT in the legal curriculum, and the increasingly sophisticated body of cognitive research into learning and professional practice could make a contribution to the research on automation of legal process. We therefore propose that the 'one-way street' model of educational simulations and professional practice - in which legal learning imitates professional practice - could be re-defined as a dialogic model of the two domains.

## Substantive and adjective law

As Bourdieu and others have pointed out, the educational practices and structures within a discipline are heavily dependent on tradition, on a *habitus* of culture, attitudes, and what one might call embedded forms of thought. In legal education, one of these distinctive embedded forms is the differentiation between various types of law. The distinction in Roman law between persons, actions and things is one such differentiation, one which had a profound influence not only on the structure of law within Roman society, but on the historical development of Western legal systems. One important distinction for us in our legal systems in the UK is that between substantive and adjective law. Various defined, it broadly concerns the difference between law as a body of 'rights and claims, liberties and privileges, duties and liabilities of persons'; and law as 'the means whereby, the circumstances in which, the qualifications under which, and the legal procedure whereby, these rights can be vindicated or these duties enforced'.<sup>[1]</sup> In the legal curriculum, contract, delict (tort), employment law, criminal law and the like would be grouped under substantive law, while under adjective law would be grouped those areas of law classified as procedural law: diligence, civil and criminal procedure, and the like.

The distinction has been maintained by a difference in teaching and learning methods, and by placing adjective courses at distinctive points in the curriculum. In university curricula, most often -- but not always -- it is placed at the end of a course, or deployed in a professional legal course. This placing is significant: adjective law is thereby linked to professional education, rather than having a place within the undergraduate curriculum.

The distinction reveals interesting cultural differences between the two areas of law. Nowadays, while the term 'substantive law' is used fairly extensively in legal education, the term 'adjective law' has tended to drop out of educational discourse. One reason may well be that, though descriptive of a long-settled division in legal categories, the term would appear to be a neologism created by Bentham to define the difference between the force of law (its 'directive' part) and its enactment *via* subsidiary command (its 'incitative' part).<sup>[2]</sup> Another reason for its disappearance may be that substantive law is really seen to be the law *in substantialis*, while adjective law is now referred to more by its separate parts (administrative law, court and tribunal procedure, evidence and pleading, for example) by terms which signify coherent sub-disciplinary groupings. In terms of status, therefore, it could be argued that substantive law has more prestige than adjective law. To describe the situation in autopoietic terms, where substantive topics are often regarded as 'pure' law, in the centre of the system, adjective law is sometimes seen as involving 'applied' law: systems of law at the periphery of the system, whose main purpose is to enact or proceduralise substantive law, and interface with other disciplines, other systems, other procedures. Put in these terms, the distinction that our legal systems make between these two different forms of law is a function of, and contributes towards, each form's legal reasoning; and as such, the distinction influences the type of epistemological claims that law makes for itself as an academic discipline and as a professional practice.

As a result, there are two significant topics which arise from the status of adjective law as a discipline which require comment. The first concerns the effect of different types of change within the domain of procedural law, particularly those changes which arise predominantly from within professional practice, rather than being imposed by legislation or regulation. The second concerns the educational reasoning that arises from taking seriously the claim that adjective law is qualitatively different from many areas of substantive law.

## The Changing Frame of the Court in Cyberspace

If adjective law, as sub-discipline, depends heavily upon legal process and procedure, then procedural change will affect adjective law directly in a way that it will not affect substantive law. Procedural change can occur in several ways. There are of course, changes which are brought about

by legislation: the recent changes to the Sheriff Court rules in Scotland is a good example of what one might paradoxically call 'traditional change'. However, there is another type of change to which adjective law is less well adapted to accommodate. This involves change in professional practice within the court. Court practice can be said to be based upon legal rules, traditional culture and the established behavioural norms of the profession. Studies of courts show that the communicational models upon which courts are predicated, and the informational channels they create, are heavily normative and simultaneously fragile systems. Changes made to personnel roles, or to the responsibilities of personnel; alterations made to standard documents, either to content or presentation of information within the documents, or to exchange of information between personnel in the court; changes made to presentation of evidence -- all this to some extent or other alters communications within the court. This has been studied under a variety of sociological and sociolinguistic research projects: linguistic variation, comprehensibility of courtroom discourse, eyewitness testimony, forensic discourse analysis (eg the reliability of audiotaped evidence), narrative structures of plea bargaining, the positioning of personnel within the court, and much else. [3]

In his essay 'Thematization and the Narrative Typifications of the Law', for example, Bernard Jackson makes a valuable distinction between two types of court room stories: the "story in the trial" (as told, for example, by witnesses and others), and the "story of the trial" ('those actions and events in the trial process which make sense as meaningful acts of enunciation'). Jackson argued, *contra* Bennett and Feldman's ethnomethodological study of American jury trials, that the story of the trial always and everywhere affects the story in the trial. As he puts it,

the narrativization of the semantics of the claims made in court is mediated through the narrativization of the pragmatics of the trial process itself, and ... these latter are both conceptually interesting and practically of the very greatest importance for our understanding of decision-making by the jury, and indeed of the trial process as a whole. [4]

Jackson's distinction is a useful one to help us understand what happens when the 'narrativization of the pragmatics of the trial process' takes place within an electronic environment. Following lines of enquiry into courtroom discourse, a number of commentators have observed that electronic or digital information will have a profound effect upon courts. [5] Some, such as M. Ethan Katsh, hold that, just as legal information no longer occupies as 'autonomous space as it did in the print era', so courts too will metamorphose. From central arenas of adversarial conflict and focal points for the administration of justice they will change to 'a more participatory but less focused arena'. [6] We can see aspects of this change occurring in the numerous examples of courts employing electronic communications. One instance is that of CLAD (Complex Litigation Automated Docketing), a system by which the process of serving and filing briefs in complex litigation is automated and served *via* computer networks. It was used recently by the Delaware Superior Court for New Castle County in litigation such as complex insurance coverage cases which generated huge quantities of paper. CLAD enabled the whole procedure of service and filing to be conducted and archived electronically.

The system had undoubted benefits in that it reduced the quantity of paper, and streamlined the courts' conventional and rather cumbersome filing system. However, whether the court become 'more participatory' as a result of going digital is more doubtful. One user of CLAD made a number of interesting observations on how an electronic court system 'bestows somewhat unequal benefits on parties that use it'. [7] Katzenstein pointed out that 'Delaware lawyers function as gatekeepers for the CLAD system. ... In order to preserve the Rule 11 obligations of Delaware attorneys, however, only in-state lawyers can make CLAD filings.' He also commented that 'CLAD is not free. A party in a CLAD case is assessed a one-time fee of \$200 for a password that permits its Delaware lawyer to upload filings. ... Any person other than Delaware counsel may gain access to CLAD for an annual fee of \$50. There are also filing fees ... and ... "download charges" ... If you are a party to a CLAD case, and a thirty-page brief is "served" on you, you must pay almost \$20 to read it' (p.39).

Clearly, the technology was used in such a way as to maintain lawyers as gatekeepers to the system, and to enable them to police that domain with professional fees for this service. Not all lawyers involved with the system were happy with this. Some, whose clients may have had only a slight financial stake in 'coverage cases', for example, 'felt it was unfair to their clients to incur LEXIS on-line and download charges simply to get service and to see what had been filed in a case they did not initiate' (p.40).[8]

Taking the innovations of the CLAD Project as an example, it is possible to see two faces of IT in the administration of justice. First, and most obviously, there were measurable gains in speed and efficiency of communications between all concerned in the court process. IT allowed courts to manage the burgeoning size of documentation, communications were greatly improved between judges and counsel, and a judge could access court documentation from outside the court.[9] Secondly, and more importantly, the changed flows of information brought about by the electronic information management tools altered what one might call the 'frame' of the court. The metaphor of the frame is a valuable one for understanding what goes on around and within a court. A courtroom event is an event within history, with its own moment and its ways of understanding from a legal perspective the narratives of its own administratory.[10] As such, its communicational channels frame its participants' understanding of what will happen, and how they must participate in its event. As was pointed out in a review article of digital changes to courts in Southern California, 'a judicial system is so much a function of the information it processes that information technology forces us to confront the core issues that shape the identity of the judicial system and its proper relationship with other entities and with the public it serves.'[11] In the case of CLAD, administration was no longer bounded by print-based delivery methods and time schedules, and therefore access to information changed. The use of information within the administration process was similarly changed, and one can foresee ways in which the electronic exchange of information could be further enhanced. To adopt the words of Collins and Skover, the shift from print-based to digital information 'enframe[d] reality in radically different ways' for the participants, one which was constrained only by the need to model digital court processes upon previous, print-based processes.

## Adjective Law and Strategic Knowledge

If adjective law is dependent to a large extent on the forms of procedure which give rise to it, the teaching of adjective law presents educators with an analogous dilemma. Because it is more practice-oriented than many areas of substantive law, the skills content of the domain is a more essential part of the process of learning adjective law. The nature of this difference can be explained if we use basic contrasts employed by cognitive psychologists to differentiate between types of knowledge, namely those between declarative, procedural and strategic knowledge. Declarative knowledge entails knowledge of concepts and facts. Procedural knowledge involves using elements of declarative knowledge *via* combination, assimilation or some form of adaptation so that it can be used procedurally within action in the world.

Strategic knowledge is knowing when to use declarative and procedural knowledge, and how to use it so as to obtain the best result. This form of knowledge is highly volitional and purposive: the knower thinks ahead, plans strategically, pools knowledge and skills, and past and present knowledge.[12]

As we might expect, the distinction between these different forms of knowledge is deeply embedded within the structure of the educational practices of the discipline of law, and have been shaped by the historical tensions between the two principal players, namely universities and professional bodies. Michael Eraut has observed that in the negotiations generally between academic and professional power structures, the focus lies elsewhere than on strategic knowledge:

The negotiations over [curriculum] content have had ... pervasive results because the traditional higher-education concern with disciplined, codified, propositional knowledge has usually triumphed.

Either degree courses have been heavily weighted by components from 'recognised disciplines', or professional departments have been influenced by higher-education norms towards giving research priority over developing professional practice. The result has been what Schön (1983) has called the dominant 'technical rationality' model of professional knowledge ...

As Eraut's comments imply, the distinction between theory and practice is one that has been fairly common throughout other professions. In medical education, for example, it has been traditional for the academic study of medical disciplines to be separated from the clinical practice. Traditionally, this form of curriculum separates theory and practice in a way similar to the educational division between substantive and adjective law.

Yet, as a growing number of educationalists have pointed out recently, this separation of theory and practice is often inimical to student learning. As Michael Eraut has put it,

*... 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.*[\[13\]](#)

There is no lack of theory to support integration of theory and practice. Problem-based learning (PBL) theorists have for some time now advocated the integration of theory and practice, and this has happened in many medical educational courses.[\[14\]](#) The proponents of situated learning, focusing on the pragmatic and social aspects of learning, similarly argue that learning is essentially dependent on the immediate situation of action. As with PBL, the literature on this is considerable.[\[15\]](#) Four strands of thinking about situated learning have been influential. First, there is the cognitive debate deriving from computer models of thinking and learning.[\[16\]](#) Second, there is the approach taken by Donald Schön and Chris Argyris in reflective thinking.[\[17\]](#)

Third, there is the argument developed earlier this century by Lev Vygotsky, and revived recently, that higher mental functions such as instrumental thinking develop through acculturation and participation in social activities, which are themselves constantly evolving.[\[18\]](#) Fourth, there is the anthropological and cultural literature which has developed Vygotsky's insights, amongst which the work of Jean Lave is particularly influential.[\[19\]](#) In her study of the apprenticeship models of learning of Liberian tailors, she emphasised how little direct instruction was given in the master-apprenticeship learning relationship. There were no isolated, task-based lessons, but there was a process of participating in a craft community, in which over a number of years the apprentice moved from peripheral tasks to more central and riskier tasks. In this model of learning, knowledge and its practice was to be found 'not in the master but in the organisation of the community of practice of which the master is part'.[\[20\]](#)

If it is the case that the domain of adjective law requires declarative and procedural knowledge to become strategic knowledge, how could this be achieved within the constraints of an academic curriculum? How could students' learning be situated within the frame of the court? And if, as we have argued, professional practice and pedagogic practice should converge in adjective law, could the equation be reversed: could professional practice usefully learn from educational practice and the heuristics employed there? To answer these questions, we shall describe a case study in the teaching and learning of adjective law, and draw conclusions from our experience of implementing it.

## **Teaching and Learning Procedural Law**

When they learn procedural law, students require to understand and memorise the forms of legal court action which can be carried out by parties to a case. The constraints of both academic curricula

and professional bodies do not allow students to learn procedural law in the real environment of the court. As a result, even with the inclusion of case law, and with examples to contextualize the procedural principles, the subject can be perceived as the acquisition of declarative knowledge alone.

This was the case with the Civil and Criminal Procedure module offered by the department of Law and Public Administration at Glasgow Caledonian University. In the original framework for teaching and assessment within the module, we attempted to address these issues in the syllabus by asking students to draft documentation from either side of the court action using precognitions (statements of the client) issued to them, and we integrated this with aspects of procedure. They also produced a letter to a clients dealing with a problem which would require them to address procedural issues. This project was, in effect, a limited practical application of what they were learning in their lectures and tutorials.

However there were drawbacks to this approach. Interactivity was minimal, and there was no place in it for the role of the Sheriff Clerk (the court administrator). This absence changed the process significantly, and may have confused students. In addition, students were not involved in legal decision-making processes, and were working in a vacuum with little sense of the pressures of a court action and responsibilities owed to the client. The idea of transforming this approach into a more active-learning one -- one in which students would raise and defend their own hypothetical actions -- was attractive. However, within the confines of a paper-based environment this was impractical for a number of reasons:

1. The process of drafting would become mechanistic with the student concentrating on format not content[21]
2. The time required to complete the project would be disproportionate in relation to other subjects covered in the module.
3. There were practical difficulties in the transmission of documents between parties.
4. The member of staff who acted in the role of Sheriff Clerk would have to be available in person, during office hours, for the duration of the project. This would have been an inefficient use of staff time
5. There would be no opportunity for tutor involvement and tutors could only with difficulty monitor student progress.
6. Student progression from one document to another could not be checked.

The *Virtual Court Action* was developed by the authors in late 1996 to address these and other issues.

## Development of Software

The *Virtual Court Action* was constructed using *HotDocs*<sup>(TM)</sup>, an intelligent document assembly application. *HotDocs* interfaces with a number of standard word processing programmes (in our case *MS Word 6*). We chose this application for several reasons:

1. It enabled us to create context-rich environments because it provided us with an environment in which to design and create complex templates.
2. Having learned to use *Word* in IT modules, our students would readily understand the *HotDocs* interface.
3. The application is widely used by legal firms in the USA, and a number of legal firms in the UK were already using it.

To begin the process of authoring templates we identified text variables within documents, and linked these variables to user prompts and help text. We then created and customised a user interface

by grouping variables into dialogues, providing help text where appropriate.

It was crucial for us at the stage of developmental design to see tasks from the users' point of view, and to distinguish between cognitively simple and cognitively complex tasks. Simple tasks could be performed for the users by the software. Complex tasks were those nodal or crucial tasks, in the performance of which students would require to consider document format, content, audience, procedural alternatives, timelines, or any combination of these. Clearly the cognitive complexity of any task increased as the number of the above factors in it increased, and we were aware that if the software were to be successful, the level of task complexity would have to be carefully planned. These tasks ranged from, for example, selecting the grounds of jurisdiction from a given list, to drafting pleadings and legal argument. Throughout we designed dialogues and user interfaces which reflected the thought process in drafting the document rather than following the strict physical layout of the document. Based on the premise suggested by Hewitt and Scardamalia, the software was used as the means for "off-loading...to reduce unwanted complexity ..." and thus "...it allows people to better focus on higher cognitive demands." [22]

For this reason we designed help text at key points in the dialogues to provide a support scaffold for students' decisions. We hoped this scaffold would alert students to the necessity to make a decision, without telling them which decision it was, or the appropriate solution. More particularly, the scaffold allowed us space in which to define terms, explain aspects of procedure, guide students' strategic choices and alert students as to the consequences of specific decisions.

## Description of Software Use

The project was piloted over a four week period in February 1997 with 70 full-time and part-time undergraduates. The students were assigned to groups of three, and each group became the pursuer or defender in a civil court action. The role of the Sheriff Clerk was taken by the course tutor. Each side was issued with a unique case scenario which gave sufficient information to allow them to initiate or defend the action. The students then actively progressed the action by drafting the appropriate legal documentation and corresponding with each other and with the Sheriff Clerk using electronic mail. During the process students responded to the various dialogues and prompts presented to them. These responses were merged with the template to produce the final formatted document. Time limits were based on those set by the Court, taking account of the university semester.

At the conclusion of the project, the students were required to submit, *inter alia*,

- a group portfolio for assessment which included a printed copy of all documentation pertaining to their case;
- an individual report which identified and summarised the learning objectives and skills that had been met as a result of participating in the project

The library of document templates was made available to all students. Each group then required to identify the appropriate documentation for their roles as either pursuer or defender. Next, they needed to assemble the document electronically by answering questions presented in the dialogues. These dialogues supported user needs to understand all the relevant legal points arising from the document, and the communicational variables within the document. Both pursuers and defenders would thus find all the supporting information they needed within the dialogues and the help facility.

A series of different dialogue types were employed in each document template in order to provide a rich and appropriate learning environment. These ranged from simple selection from a list of given options to drafting sections of text incorporating legal argument. The resulting document was then sent to the appropriate party by email. The action continued as in the real court environment with the

parties corresponding with each other and the Sheriff Clerk.

## Student Feedback

Formative evaluation was employed during development of the templates and user interfaces in order to determine the ease of navigation within and between templates. This took the form of videotaped talk-aloud protocols which were used with groups of students. After studying their responses and comments, a number of aspects of the user interface were modified.

In the summative evaluation students were asked to provide feedback in the form of a questionnaire as well as in the report which was submitted for assessment. The aim of the questionnaire was, firstly, to assess the success of the project in terms of student motivation and perception of skills/knowledge acquired; and secondly, to provide feedback for future development. Throughout the period of the project the groups were also observed informally in the computer laboratories.

Overall the feedback has been very positive[23]. In particular, student comments reflected the vocational nature of the project and its perceived relevance to the workplace, resulting in improved student motivation. Some highlighted issues which are relevant to actual work practices. For example, students commented that:

- It was a more realistic work-related environment ..... and also enabled me to undertake the work related to this project outwith the limited periods available in the evenings which are allocated to classes.
- Having to respond within set timescales .... required that appropriate time management skills were developed, again this is more relevant to what happens in the workplace when targets have to be met.
- I have a very high level of understanding of Ordinary cause procedure. This understanding [includes] a sound knowledge of the language used.
- Students very strongly indicated further improvement of their general IT skills, in particular the practical application of email and document assembly.
- This project has made me more interested in email. It has encouraged me to get my own email number so I can carry on emailing.

It would appear that the project succeeded in so far as it facilitated strategic knowledge in the domain of adjective law. Much of this was due to the planned convergence of professional practice (what lawyers actually do when preparing for a court action) and academic practice (the structure of learning aims and objectives, the constructivist forms of situated learning, the merging of learning and assessment goals, etc.). There were, however, three significant general points which arose from the project and which, we believe, cast light upon the domain of professional practice.[24]

## Document Drafting/Work Practices

Perhaps the most obvious change is that of working practice at the level of document production, and this affects both students in simulations such as the *Virtual Court Action*, and lawyers acting for clients in real actions. Both groups require to learn to use email, and to inhabit cyberspace, where every document is uncomfortably adjacent to every other, where ease of access to information is critical, and where finding tools is essential to survival in the data flows. For a lawyer using a document assembly system such as was used in the *Virtual Court Action* there is an implicit advantage over a party litigant or non-IT lawyer in raising court actions which become more cumbersome, time-consuming, inefficient, and therefore costly (though we recognise that IT and IT training has its own costs). Similarly, students who were *au fait* with the technology of document assembly were at an initial advantage over those students who had to learn how to manage the system.

The software was not used to automate everything in the production of legal documents: students still required to 'add value'. The benefit of using this technique was that document drafting could be carried out more efficiently, enabling us to use the simulation as an effective teaching tool within the confines of the university environment. Further, in the creation of the documents, emphasis was retained, from a student point of view, on content, not form. The benefits to the profession in this "off-loading" of low level cognitive tasks allowing concentration on high level tasks are clearly evident.

It follows then, that there is a need to examine the use of tools such as document assembly *as they are used by lawyers in practice* in order to determine how they could be improved. Nor should the design of these tools be limited to imitation of the forms of writing and genres characteristic of print culture. As we have argued in this paper, the print culture of courts -- the story of the court, in Jackson's terms -- changes significantly when even part of the communicational channels become electronic. Such change is not new. The printers of the earliest printed books or incunables, for example, imitated the design of manuscripts, and not only to emulate the expensive cachet of the manuscript, nor because this manuscript environment was the only one that their readership knew, but also because the printers themselves did not know what to do otherwise with the technology at their disposal. The situation with word processors is analogous. The software initially emulated typewriters in many of its forms. Only relatively recently has MS Word, for example, included an outliner, and concept mappers are still not standard. Textual design of printed books, as commentators point out, is abstractly lexical, with none of the mnemonic aids to comprehension characteristic of manuscript cultures. Computers could easily support this: planners, text generators such as *Daedalus*, concept mappers and automonitoring tools -- all these could be made available to the digital lawyer, all of them interfacing with each other and with case management and court administration systems.

## Case Management and Role Change

In courtrooms and court administration, printed documents function as stages and -- as we saw in the CLAD project -- as gateways. This has the effect of distancing the communications in the court, rendering them private (unless read aloud), as much as the final judgement, on paper, is distanced from the person who originally delivered it. [25] As we pointed out above, the electronic environment does not merely allow for greater speed or efficiency of document drafting, nor does it merely improve communications within the court-room. More importantly, it also changes the *nature* of communications and communicational roles in the court. A good example of this is the comparison between the role of the Sheriff Clerk in the *Virtual Court Action*, and this role in the real Sheriff Court. The Sheriff Clerk has historically performed specific functions: administrating the action outside the court by processing documents, intimating diets, setting timetables, archiving files and records judicial decisions. Inside the court the Clerk is responsible for calling the cases, processing the paperwork, liaising with the Sheriff and agents, and indeed the parties to the case.

These tasks could change significantly in the electronic environment, and our observations of task performance within the *Virtual Court Action* bear this out. The course tutor, in the role of Sheriff Clerk, became responsible for monitoring and providing feedback to students on the progress of their case. This interaction is important in realia scenaria. [26] Indeed the Sheriff Clerk had the power, in our simulation, to prompt the parties for documentation if required. We observed that the role of the Sheriff Clerk within the process could be said to have shifted from the 'normal' role of administrator to one of monitor/controller. In an electronic environment therefore, there is the potential for the Sheriff Clerk to assume a more pro-active role in the process.

This shift of emphasis in the Sheriff Clerk's role has implications if applied to real life clients/cases. Primarily in the *Virtual Court Action*, it ensured that all cases did progress to the required end point within the specified time limits. This is obviously crucial in the learning environment, but clearly there is an issue here for legal court practice. While there are practical benefits with the Sheriff Clerk

being pro-active, there has to be a balance between directing the process and facilitating it. This view of the clerk as case manager reflects the recommendations by Lord Woolf who envisages a greater role in the court process for both court administrators and the judiciary. [27]

## Communications

Within the *Virtual Court Action*, it was clear that the electronic environment affected communications channels, and a number of factors were influential here. First, the Sheriff Clerk was available outwith office hours, and could communicate with parties asynchronously. Second, the speed of transmission of documents increased through use of email. Initially this would appear to be of considerable benefit. However it became apparent from the reactions of students taking part in the *Virtual Court Action* that this created higher expectations of a quicker response. Indeed some students became frustrated if they had not received a response within what they considered a reasonable time (in some cases as little as two hours after sending a document). This reaction has to be tempered with the fact that students were only dealing with one transaction and that the time limits for the simulation were proportionately shorter than the court timetable. In an office situation, lawyers would be processing a number of concurrent court actions, and may be less anxious when a response is not received immediately.

However, there are larger issues here, which we touched on earlier in this paper. If it is the case that court roles begin to shift in the electronic environment, and that the communicational model of a court begins to shift as well, then the question must be asked to what extent does this occur, and what effect does this have upon the administration of justice. These questions cannot be answered fully here, but our own experiences of constructing digital domains in which students can communicate, even at a fairly simple level, would lead us to agree with Katsh and others that '[e]lectronic tools to access legal spaces and legal information reduce the informational distance that previously enhanced the lawyer's role as translator and interpreter' (Katsh, p.180). This is a good example of the way in which the pragmatics of courtroom discourse is altered by technology. To adopt the words of Jackson (who is drawing upon Greimasian semiotics), digitisation affects not only what is spoken, the *'énoncé'*, but also *'the intelligibility of the acte d'énonciation'*. [28] The extent to which communicational models within courts, as these have been described and analysed by sociological, sociolinguistic and semiotic research, are affected by the digital revolution requires detailed sociological research. Such research could be built into studies such as the Judith Project. [29]

## Conclusion

What we have seen in the university within the last forty years or so is a substantial and growing body of research into how students learn; how -- from an epistemological point of view -- constructions of task, text, context and meaning affect learning, and how all this operates within the apparent antinomies of academic and professional learning and the field of human-computer interaction. We have taken account of some of this research in our implementation of the *Virtual Court Action*.

While our project was designed with pedagogical aims and objectives, the operational design of the *Virtual Court Action* was determined to a large degree by the electronic communications environment in which the project was carried out. This involved changes to personnel, particularly the Sheriff-Clerk. This process of role shift has been well documented by others. [30]

Yet if this learning project is successful, it is so because the boundaries of the project are well defined within the aims and other heuristics within the module. And this brings us to what might appear to be a key issue in the project. The *Virtual Court Action*, of course, is virtual in two senses of the word. First, the court action itself is not real, it is a simulation of a real action.

There are many points of dissimilarity between the two, eg the timelines required to be adapted for a university timetable and signatures on documents were not authentic. Second, the action itself takes place electronically in a way that could not happen in Scotland because court procedures are not delivered electronically, as they are in many courts in the USA, for example.

But if the *Virtual Court Action* project and real Scots law courts appear significantly far apart, we would argue that they are in some respects very similar. In both, there are systems within which users work: task parameters, communicational genres and community and audience expectations, timelines and formalised workplaces and communication spaces within which meaning is constructed and negotiated. We aim to enable our students to learn these skills -- we call them transferable, and expect students to demonstrate an awareness of them, within the community group. In the *Virtual Court Action*, students learned roles by enacting them. These are not the roles of real courts, real persons: this could never be, for it is simulation only. But the similarity lies deeper in the learning task, in the integration of skills and knowledge that students must achieve in order to complete the task. This integration is similar to the integration that professionals carry out in their workplace tasks.

Careful design of systems for professional practice (as we tried to do in our *Virtual Court Action* simulation) can provide paths for users and help users to focus on strategic knowledge.[31] However the issue of automation in document assembly processes as well as other technological processes in courts is as we have seen a complex one. Katsh points out that automation `does not simply speed up a process or replace an existing process but changes the environment by producing information and by encouraging attempts to use and add value to the information that is produced (p.119). Similarly, Richard Susskind asks whether lawyers are happy to continue to use IT to automate existing processes, or whether they want to harness it to do things they are not already doing.[32]

Our experience in developing the *Virtual Court Action* is that what may be a practical process or procedure in a paper-based context does require to be redesigned when automated or applied in an electronic environment. The roles of the parties involved may require to shift as a result. Although these alterations to practice may be implemented in academia for practical or academic reasons, there may be some value in feeding this information back into the profession. At present, within our simulation (and other legal simulations in general) there is no `best practice' which has been established. In terms of the development we are in the middle of an iterative process. At the same time, the same process is going on in parallel in legal practice. What would be beneficial for the two domains would be a cross-disciplinary approach to the design and development of new communicational models for legal processes and procedures in the electronic environment.

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[1] D.M. Walker, *The Scottish Legal System*, seventh edition, revised, Edinburgh, W. Green/Sweet & Maxwell, 1997, p.74. As Walker points out, the distinction is more complex than the oft-quoted difference between `right' and `remedy', and while some areas of law are clearly the preserve of one or the other, there is overlap: for example, the `method by which a right can be enforced sometimes determines to some extent the nature or content of the right' (p.75).

[2] See J. Bentham, *The Limits of Jurisprudence Defined*, edited by C. W. Everett, New York, Columbia University Press, 1945, p.47. The *OED* cites the first occurrence as Bentham's *Scotch Law Reformed* (1808)

[3] See, for example, J. Levi and A.G. Walker, editors, *Language in the Judicial Process*, NY, Plenum Press, 1990; J. Gibbons, editor, *Language and the Law*, London, Longman, 1994; R. W. Shuy, *Language Crimes: The Use and Abuse of Language Evidence in the Courtroom*, Camb. Mass., Blackwell, 1993; B. Jackson, `Towards an Interdisciplinary Model of Legal Communication', in B. Jackson, editor, *Legal Semiotics and the Sociology of Law*, Oñati, Spain, Proceedings of the Oñati

Institute (Spain), vol 16, 1994, pp. 97-111; M. Poster, *The Mode of Information: Postmodernism and Social Context*, Oxford, Polity, 1990; J.F. Stratman, 'Investigating persuasive processes in legal discourse in real time: cognitive biases and rhetorical strategy in appeal court briefs', *Discourse Processes*, 1994, vol 17, 1-57

[4] B. Jackson, 'Thematization and the Narrative Typifications of the Law', in *Law as Communication*, D. Nelkin, editor, Aldershot, Dartmouth, 1996, p.177

[5] For a representative selection of views on this, see Post, *op.cit*; M. Ethan Katsh, *Law in a Digital World*, Oxford, Oxford University Press, 1995, and R. Susskind, *The Future of Law*, second edition, London, Butterworths, 1998

[6] Katsh, *op.cit*, p.196

[7] R. J. Katzenstein, 'CLAD: Delaware's Paperless Docket', *Litigation*, Winter 1994, vol 20 no 2 , pp 37-40

[8] Katzenstein does however point out that a later version of the software, CLAD II, 'permits a Delaware lawyer to review recent filings for free' (p.39)

[9] Katzenstein, *op.cit*

[10] The concept of the frame, deriving from the discourse of art and cartography, is used in many disciplines. See for example G. MacLachlan and I. Reid, *Framing and Interpretation*, (Melbourne, Melbourne University Press), 1994; *Rhetoric of the Frame: Essays on the Boundaries of the Artwork*, edited by P. Duro, Cambridge, Cambridge University Press, 1996. For a useful application of the concept to law, and one directly applicable here, see R. K.L. Collins and D. M. Skover, 'Paratexts', *Stanford Law Review*, 1992, vol 44, 509

*'Any technique that reproduces reality enframes or shapes reality. ... Enframing, therefore, is a quality of any mode of representation, and varies according to the selected mode. Different modes of representation, with their different types of enframing, will set different boundaries ... oral, written, print, and paratextual modes of representation enframe reality in radically different ways. Thus, a shift from one mode of representation to another produces far-reaching consequences for law, which currently is highly dependent on texts of one sort or another.'*

This concept has a number of similarities with Heidegger's concept of 'enframing' (*das Gestell*), by which representation of the object world is not just a re-presentation, but a rupturing as well as a capturing. See M. Heidegger, 'The Age of the World Picture' in *The Question Concerning Technology and Other Essays*, translated by W. Lovitt New York, Harper, 1977), pp. 19-20. Very often this 'enframing' goes unnoticed because it must do so in order to work its effect -- '[w]hat has produced and manipulated the frame puts everything to work in order to efface the frame effect ...', Jacques Derrida, *The Truth in Painting*, translated by Geoff Bennington and Ian McLeod (University of Chicago Press, 1987), p.73. There are points of similarity between Derrida's concept of the frame, and Jackson's exploration of the ways in which the pragmatics of courtroom discourse operate at deep levels within court narratives.

[11] R. Anderson *et al*, 'The Impact of Information Technology on Judicial Administration: A Research Agenda for the Future', *Southern California Law Review*, 1993, vol. 66, 1752-1812 at p.1806

[12] See G.D. Phye, 'Strategic Transfer: A Tool for Academic Problem Solving', *Educational Psychology Review*, 1992, vol 4, pp.393-420

[13] M. Eraut, *Developing Professional Knowledge and Competence*, London, The Falmer Press, 1994, p.51

[14] The literature on problem-based learning is considerable, particularly in the medical sciences. See M. Tzannes, 'Problem Based Learning in Legal Education: Intentionally Overlooked or Merely Misunderstood', *The Law Teacher*, 1997, vol 31, no 2, pp.180-197; D. Cruickshank (1996) 'Problem-based Learning in Legal Education' in J. Webb & C. Maughan (eds) *Teaching Lawyers' Skills*, London, Butterworths, 1996; D. Boud, 'Problem-based Learning in Perspective' in D. Boud, editor, *Problem-based Learning in Education for the Professions*, Higher Education Research & Development Society of Australasia, Sydney, 1985; H.S. Barrows, 'A Taxonomy of Problem-based Learning Methods', *Medical Education*, 1986, vol 20 481; H.S. Barrows & R.M. Tamblyn, *Problem-based Learning: An Approach to Medical Education*, New York, Springer Verlag, 1980; D. Boud & G. Feletti, *The Challenge of Problem-based Learning* London, Kogan Page, 1991

[15] See J.S. Brown, A. Collins, and P. Duguid, 'Situated Cognition and the Culture of Learning', *Educational Researcher* 1989, vol 18 no 1, 32-42

[16] See, for example, H.L. Dreyfus, *What Computers Can't Do*, second edition, New York, Harper & Row, 1979; L.A. Suchman, *Plans and Situated Actions: The Problem of Human-Machine Communication*, Cambridge, Cambridge University Press, 1987.

[17] D.A. Schön, *The Reflective Practitioner: How Professionals Think in Action* New York, Basic Books, 1983

[18] L.S. Vygotsky, *Mind in Society: The Development of Higher Psychological Processes*, Cambridge MA, Harvard University Press, 1978

[19] See, for example, J. Lave, 'The Culture of Acquisition and the Practice of Understanding', in J.W. Stigler, R.A. Shweder, & G. Herdt, editors, *Cultural Psychology*, Cambridge, Cambridge University Press, pp. 309-327; J. Lave & E. Wenger, *Situated Learning: Legitimate Peripheral Participation* Cambridge, Cambridge University Press, 1991

[20] Lave & Wenger, *op.cit*, p.94

[21] P.C. Kissam, 'Thinking (by writing) about legal writing', *Vanderbilt Law Review*, 1987, vol 40, 135-73. Kissam has argued that law schools, by failing 'to employ the writing process as an effective learning device', generally encourage legalistic attitudes towards language. The concentration on substantive or 'black-letter' law and the finished product, he posits, inculcates formalist views of genre, represses the polyphonic nature of legal discourse, and gives students the illusion that *auctoritas* is to be found in legal terms of art, and not in argumentation or problem-solving analysis. His argument has clear application to a project such as the *Virtual Court Action*, which opens up the process of document production to students.

[22] J. Hewitt & M. Scardamalia, *Design Principles for the Support of Distributed Processes*, <http://csile.oise.on.ca/abstracts/distributed>. It is interesting that, in writing instruction, Scardamalia and Bereiter have, since at least 1986, advocated the facilitation of 'procedural facilitation' rather than 'substantive facilitation' in students' writing. The intent of this has been "'to enable students to carry out more complex composing processes by themselves'" through helping students to 'internalize' these structures. They do so by scaffolding the student's own modelling of the structure - - see M. Scardamalia and C. Bereiter, 'From Conversation to Composition: the Role of Instruction in a Developmental Process', in Glaser, R., editor, *Advances in Instructional Psychology*, vol 2, Hillsdale NJ: Lawrence Erlbaum Associates, pp.797-8. The approaches taken to the construction of formal legal documentation in the *Virtual Court Action* has strong similarities to such scaffolding.

[23] K. Barton & P. McKellar, 'The *Virtual Court Action*: Procedural Facilitation in Law, *Association of Learning Technology Journal*, forthcoming

[24] All of these points were first articulated and then elaborated from our action research notes taken from developers' notes, observation of users, video protocols and our record of student comments

[25] Katsh, *op.cit.*, pp.163-4. Katsh is referring to the US Supreme Court here, and principally he is dealing with the effect of print *versus* television as a medium for delivery of court judgments; but he also points out that for several years now the Supreme Court has distributed its judgments electronically, and that 'electronic distribution also will change the distance between the Court and the public' (p.163)

[26] See, for example, R. Jones, 'Computer-managed Teaching and Learning in Law', *International Yearbook of Law, Computers and Technology*, vol 8 1994, 173-83: Feedback [on a task] should be ... immediate and students should also be able to move on as and when they wish' (p.182)

[27] Lord Woolf MR, *Access to Justice: Final Report*, London, HMSO, 1996

[28] Jackson, *op.cit.*, p.177

[29] Judge Mander, *The Judith Report*, *International Journal of Law and Information Technology*, vol 1 no 3

[30] As regards lawyers' working practices, for example, Michael Hartmann has pointed out that increased use of electronic data banks increased the 'leverage' within firms: 'except for core legal fields with high need for special legal expertise, the use of legal data banks reduces lawyers' employment advantage over competing non-professional workers, such as insurance clerks'. See M. Hartmann, 'Legal Data Banks, the Glut of Lawyers, and the German Legal Profession', *Law and Society Review*, 1993, vol 27, p.190. Quoted in Katsh, *op.cit.*, p.180

[31] *Southern Californian Law Review*, *op.cit.*, p.1083

[32] R. Susskind, *op.cit.*