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## Legal e-Learning in Network Society

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## *Abstract*

By now the idea that we live in a changed universe of information and changed relations of production as a consequence of the information technology revolution is part of the discourse of the sociology of information. There are a variety of approaches ranging from Daniel Bell's "Post-Industrial Society" to Castell's "Network Society". The underlying idea of Castell's Network Society or Network Informational Society is that networks replace hierarchised and circumscribed relationships (Castells 2000). The nature of work is transformed by the interactive networks as opposed to hierarchised production processes involved in production and exchange. Networks and thus processes of production and exchange have a tendency to extend spatially and be globalised. Benkler (2002, 2003, 2004) has suggested that there have been two information revolutions. The first led to an industrial information economy and the second to a network information economy. The industrial information economy was dominated by the industrial production of information (financial services, accounting, software, science) and cultural (films, music) production, and the manipulation of symbols (ie brands eg. nike). The new, the *networked information economy* is based on a communications environment built on cheap processors interconnected in a pervasively networked environment—typified by the internet.

Keywords:    Information technology, Information society, Networked society, Internet, information revolution, industrial information economy, legal, e-laeraning

## *1. Introduction*

Legal e-learning already has a short but distinguished history (Paliwala, 2001; See bibliography by Goldman, 2001). That history coincides with dramatic changes in the nature of information technology and the content it produces from being

> a. largely standalone to one whose essence has become communication and collaboration and being ubiquitously available from an increasing variety of devices ranging from a PC to a cell phone or an iPod (Educause 2006);
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> b. a range of divergent media technologies to convergent media technologies;
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> c. originally relatively free of intellectual property rights in software to a state of growing commodification of both software and content through the extension of intellectual property rights. This has led to a resurgence of resistance against the enclosure of global commons through free and open source software and free and open content movements.

By now the idea that we live in a changed universe of information and changed relations of production as a consequence of the information technology revolution is part of the discourse of the sociology of information. There are a variety of approaches ranging from Daniel Bell's "Post-Industrial Society" to Castell's "Network Society". The underlying idea of Castell's Network Society or Network Informational Society is that networks replace hierarchised and circumscribed relationships (Castells 2000). The nature of work is transformed by the interactive networks as opposed to hierarchised production processes involved in production and exchange. Networks and thus processes of production and exchange have a tendency to extend spatially and be globalised. Benkler (2002, 2003, 2004) has suggested that there have been two information revolutions. The first led to an industrial information economy and the second to a network information economy. The industrial information economy was dominated by the industrial production of information (financial services, accounting, software, science) and cultural (films, music) production, and the manipulation of symbols (ie

brands eg. nike).  The new, the *networked information economy* is based on a communications environment built on cheap processors interconnected in a pervasively networked environment—typified by the internet. The first shift, to the *industrial information economy,* promoted the dominance of the mega-corporation, and with the assistance of media advertising and IP laws created passive workers who had no control over what they produced or consumed.  The new *networked information economy* allows non-market production to play an increasing role in the information and cultural production sector, organized in a radically more decentralized pattern than was true of this sector in the twentieth century.

There exists a considerable literature on the subject of authorship and the way in which the nature of authorship of all cultural objects is being transformed because authorship is created by networks and not individuals (Coombe 1998, Lury 1993, Bowery 2005).  In the world of education, the geography of learning is changing from a situation in which the individual academic creates and delivers her course to students to one which is increasingly the result of collaboration between groups of teachers, librarians and technologists (Paliwala 2002). Even among academics, there may be growing distinctions between the producers of the course and the delivering tutors.

Yet, the world of intellectual property promotes a contradiction. The engagement between global business and law results in new forms of appropriation of networked production. Law's failure to give effective recognition to the changed relations of production means that old property concepts are applied and extended in ways which dramatically expand the property rights of specific types of business interest. This restrains effective collaboration among academic networks outside of proprietary interests (Coombe 1998, Lury 1993, Bowery 2005).

In this paper I explore the history of developments in legal education and suggest ways in which these transitions and conflicts are being negotiated.

## 2. The Transition of Content: Legal Information Retrieval

The Ohio Bar Association's development in the sixties of what became the LEXIS legal information retrieval system has had a profound effect on how legal work is done today. Europe followed with the development of systems such as EUROLEX ItalJure and Jurist.

However, there was a profound difference between the US approach to the educational use of the new systems and the approach in Europe. In Europe, many courses were developed on Information Technology and Information Retrieval. Yet, these courses were mainly about what information retrieval was, what jurimetrics was etc.  This happened right through the eighties. The systems were there, they were demonstrated to students, and even used in a limited fashion by law students, but this was for students to learn about the systems rather than for them to use information retrieval as an active tool in their learning of law (BILETA, 1990; Paliwala, 1991). Leading universities in the UK including Oxford locked away their LEXIS terminals because otherwise they could not control the costs.  In the US on the other hand, partly fuelled by market competition between LEXIS and WESTLAW, every law student had full and free access to the datasets.  They were tools to learn with and students developed a new culture of legal research which accompanied them to the world of legal practice. It was not until the mid 1990s and the development of web based legal information that European students began to catch up.

In the more market and hence intellectual property oriented United States it was soon realised that lawyers were the future market. Law Schools were also much richer and more powerful. As a result, they were able to do favourable deals with the publishers. In Europe, with weaker

law academies, but with also a more conservative information culture, it was less easy to impress on the publishers the need for access to information. While internet culture also developed earlier in the US, the public investment potential of the internet was more attuned to funding regimes in European intellectual and legal life and therefore it has been possible for Europeans to develop a vigorous internet legal information culture. In fact, in the network society, legal information culture has shown a growing tendency to transcend global digital inequalities through the provision of free and open legal information on the Web. It has become the cultural norm to provide legal information free on the web through institutions whether it is in the form of national or international legislation or case law. The rise of doctrines of public goods, good governance, transparency, and eGovernment has required that citizens and others have free access to information. This has led to amelioration or abandonment of old ideas of state copyright for commercial control of public information where they existed. The rise of NGOs and activist groups has also resulted in the provision of free legal information sites. The contribution of the Open Content movement has not just been the production of legal resources, but growing coordination in their worldwide production through organisations such as WorldLII which coordinates and promotes open content development worldwide whether in Francophone Africa or in the United Kingdom (See www.worldLII.org, Greenleaf 2004, 2005).

For students worldwide, this web culture has transformed the nature of learning. With search engines such as google, information on any law anywhere can be instantly retrieved[1]. The result is a remarkable potential for the globalisation of the content of law study and also of the potential for independent learning. The extent of development in these areas can be guaged by the fact that my own free and open access esoteric ejournal, the Journal of Information Law and Technology[2] is accessed by over half a million user sessions from nearly 100 countries worldwide in any one year.

## 3. From Standalone to Networking Pedagogy

The true precursor of the CAI (Computer Assisted Instruction) or CAL (Computer Assisted Learning) is 'programmed learning' which was being developed in law by John Kelso in the US in the Sixties (Burris, 1979; Staudt, 1999). The experiment stemmed from the educational idea that students develop at different speeds and with different learning paths. It also had the underlying idea of interaction - that linear reading of law books is not stimulating and not good for retention. Therefore a hardcopy 'Program Book', which carefully divided the learning into segments in which text was followed by multiple choice questions and feedback to answers was an effective 'conversational' learning mechanism. It was soon realised that the computer was an effective medium to enhance the potential of programmed learning. As early as 1977 there was an experiment with legal CAL at Cornell Law School (Henn and Platt, 1977). It was also realised that in the computer medium the multiple choice formula could be adapted to quite sophisticated pedagogic uses. Influenced by clinical learning theory, early CAL authors developed process games and interactive video exercises involving courtroom litigation. Exciting though this individual courseware development may have been, Russell Burris, Don Trautmann and Roger Park (the pioneers of legal CAL) soon realised the need for a co-operative organisation of law schools. Such an organisation would assist the otherwise isolated innovator, but also ensure that materials were of a consistent standard and available to all US law students. They founded the Centre for Computer Assisted Legal Instruction (CALI) which now includes most significant US Law Schools

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[1] This of course promotes dangers such as plagiarism and academic institutions have responded by on the one hand developing anti-plagiarism software applications and on the other by reducing the essay content of assessments.
[2] http://www.warwick.ac.uk/go/jilt

(Burris, 1979). Organisation was more important than technology. For example, the original 'CALI Author', which enabled the authoring of CALI courseware in the mid-eighties, was far from rocket science. The achievement of the pioneers was making law professors develop courseware and law schools use them.

In Europe, Jones, Parkes, Young and Widdison were doing interesting work, and developed interactive tutorials which formed the basis of much subsequent work. However, the avenues for distribution of these materials were inadequate. The material was therefore more relevant as exemplars than for pragmatic delivery until they were reviewed and distributed nationally in 1991 by the Law Technology Centre with the Resourcebook for Law (Paliwala, 1991a).

In the UK, we learnt from US- CALI and developed the British and Irish Legal Education Technology Association (BILETA), the Law Technology Centre and the Law Courseware Consortium (LCC)[3]. The LCC co-operatively developed the successful Iolis courseware using the lessons of UK and US developments as a springboard for the concept of an integrated electronic environment with much more complex interactive exercises based on a new generation of authoring tools (Paliwala, 1998; Paliwala, this volume)

The development of CALI and IOLIS makes an interesting case study of the transition to network society. It was authors who were collaborating and networking and using the increasingly common email systems to communicate. On the other hand, computer networking was not robust enough to tolerate anything but CD based delivery to individual university networks. For students the learning experience was largely standalone. In fact, during this period, the essential pedagogical principle was how to promote 'individualised' student learning as a substitute for group learning in lectures and seminars. For a while, it was believed that Artificial Intelligence would enable modelling of each student and thus overcome some of the limitations of multiple choice CAL (Egri, 1990; Hardy, 1990; Staudt, 1991Jones, 1992, 2000; Hunter, 1994; Hegarty and Routen, 1996; Lodder et al, 1999; Muntjewerff, 2000, Ashley, 2001). While much was learnt about the ways students learn, no functional AI based systems were developed.

However, the notion of standalone learning was already being extended. Thus, a key aspect of Iolis was that the courseware should not simply be programmed learning exercises, but provide a rich multimedia learning environment with a variety of functions such as text and hypertext, interactive exercises, a library of resources, note taking and an annotation and discussion forum (Paliwala 2005).

This notion of an eLearning environment was becoming critical because of the spread of independent and active learning theory under which the student is:

> A self determining agent who actively selects information from the perceived environment, who constructs new knowledge in the light of what the individual already knows
> Le Brun & Johnstone (1995: 56)

The development initially of hypertext and ultimately of the World Wide Web promoted systems to enable students to explore a variety of ideas and sources to come up with their own approaches to things. In this continuing process, a subtle if not complete shift is taking place towards reflexive independent learning by the student, which is nevertheless prevented from full effectiveness because teaching and assessment systems have not been modified to cope with the shift.

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[3] BILETA has now changed its name to the British & Irish Law Education and Technology Association; the Law Technology Centre is now incorporated into the UK Centre for Legal Education.

In the US, Ron Staudt had already been experimenting with an electronic case book in the late eighties (Staudt, 1993; 1999). This replication in electronic form of the paper US casebook was a radical departure from 'programmed learning' lessons in enabling students to carry out a variety of tasks – read cases, read notes on cases, highlight key text, make notes, answer questions, and solve problems. The difference between the eCasebook and the CALI or Iolis type of courseware was that it was modelled on the typical US paper casebook. However, students were enabled to do more with it in the electronic form, for example navigating within and outside the environment using hypertext links, and the facility to develop one's own version of the book with highlighting, notes and annotations. Most of this is possible with CALI or Iolis courseware, but CALI/Iolis emphasise interactivity, the eCasebook sees it as an extra. Staudt (1999) has suggested that the jury is still out on the e-casebook. An experiment by publishers in Oxford was considered a failure, but probably because of the different learning culture in the UK compared with the US. More recently commercial publishers have started publishing eBooks in the UK as well. Peter Martin's (1996) evaluation of the Chicago-Kent workbooks suggested that students used laptops for wordprocessing, liked electronic tutorials and lecturers' use of the casebooks and other e-material in class, but preferred reading text on paper.

However, student cultures change rapidly in the network age. The World Wide Web took the e-learning environment to new heights. Its trick was being everywhere and friendly. Every application is likely to be improved and developed so that it meets the demands of the web. Web based Virtual Learning Environments (VLE) provides integrated learning resources and Managed Learning Environments (MLE) manage the learning being done (Grantham, 2002). By combining multimedia, hypertext information, learning notes, interactive learning exercises, communication and discussion and course management functions they take us beyond the capacities of either the hardcopy book form or the programmed learning form and can promote student centred independent flexible learning. The issue is one of how well these devices are used.

Pedagogy was a key concern from early days. As indicated above, Kelso's programmed learning books and the early CAL courseware emerged from a concern with the different pace of learning of different students and the value of interaction and feedback in learning. Note the debates in the Journal of Legal Education in this period (Burris, 1979; Clark, 1983; 1983a; Korn, 1983). Experiments with Intelligent Computer Assisted Learning (ICAL) were also based on the idea of computer modelling of students to promote deep learning (Jones, 1992). That is, instruction should reach the student in the way which best met the needs of the individual student.

The notions of teaching/learning as a conversation with feedback were crucial to this process. Laurillard (1993) was instrumental in applying Pask's conversational theory to ICT based learning. The key to Laurillard's approach was that lecturers and students must understand each others' perception of the learning activity and use this understanding to negotiate and adapt learning activity. Therefore, feedback, reflection and action upon the feedback were crucial elements of this task. The conversation need not be just between teacher and student. A conversation in the student's head in which the student reflected upon different options was equally part of the process. Multiple choice based ICT could replicate some aspects of this through the use of various interactive devices such as solution of problems through question and answer sessions with feedback to answers and different pathways depending on different answers. Effective deployment of audit trails and e-conferencing could also enable student-student and student-staff conversations which were so important to the Pask-Laurillard conversational theory.

The emphasis was on 'deep' as opposed to 'surface' learning and 'constructivist' as opposed to Gagné's 'instructionism'. The underlying issue in the end was not whether a CAL exercise was based on question and answer with feedback or not, but whether all students were asked

to do was to find the right answer as opposed to independently construct potential meanings through interaction with the ICT medium.  This difference still remains important today in the construction of CAL.

While Laurillard's emphasis was still on learning as an individualised experience between teacher and student, Le Brun and Johnson (1994) provided the theoretical underpinning for collaborative, clinical, active and reflective learning in law.  An early Cornell paper described CAL as clinical legal education's  'bionic sibling' (Henn and Platt, 1977).  There are two simple underlying ideas  –

> a. students should be given the tools & support to construct their own knowledge either individually or in groups;

> b. student learning should reflect the community in which she is going to live and work – thus if lawyers work interactively in groups and negotiate,  so should students.

Duncan Kennedy suggested as long ago as 1981 that CAL would liberate students from professorial authoritarianism (Kennedy, 1981). Kyle Bosworth the Director of Lexis/UK challenged academics to encourage students to do independent research rather than be dependent exclusively on the textbook. However, this was the pre-Web period where proprietary information networks such as LEXIS dominated the scene and priced students out of independent research.

The development of email and computer mediated communication (what we now call e-conferencing) relational databases, legal practice systems and the Web opened up the horizons for experiments in innovative learning.  Thus the late eighties and early nineties enabled groupwork through the use of asynchronous electronic discussion groups, electronic negotiation exercises across continents and computerisation of student law clinics (Paliwala, 1987; Sprowl and Staudt, 1981; Paliwala, 1987; Trautmann 1990; Paliwala and Clark 1990; Hardy, 1993; Clark et al, 1992; Friedman, 2000).  'Live' clinics did not require the creation of a virtual society.  They also provided information trails for reflective 'case conferences' and assessment.

More recently, the explosion of social networking with websites such as U-Tube (www.youtube.com/ ) Myspace (www.myspace.com ) and Secondlife (http://secondlife.com ) has brought an entirely new generation of computing for educators to consider. Already, a whole wikispace is devoted to the use of Secondlife in education (http://sleducation.wikispaces.com/educationaluses ) and Elizabeth Gard has used Secondlife in her first year Property Course at Seattle (Gard 2007). Blogs and Wikis have taken off in a big way in higher education. As student numbers grow and staff and students get more alienated from one another, virtual social networks perform the role of attempting to fill those spaces.

The existence of clinical legal education meant that those involved in legal education realised the relevance of networking early on (Jones and Bloxham 2001). However, IT based simulated legal education required the provision of a virtual information infrastructure of the type that live clinics could take for granted.  Thus Maharg and Scott's Ardcalloch Virtual Town provides the integrative culmination of the new pedagogy and new convergent technologies (Maharg 2004, Maharg, 2002, Maharg and Paliwala, 2002).  The environment developed for the postgraduate professional legal training programme of the Glasgow Graduate School involves a virtual town with a history and a map and all facilities which may be relevant for virtual legal practice by teams of students who are organised into law firms. The underlying pedagogy for the virtual town is 'negotiated learning' or 'transactional learning' in the sense developed by Flower (1994; Maharg and Paliwala, 2002, Maharg

2006,) A jointly funded UK project with the Universities' Joint Information Systems Committee (JISC) and the UK Centre for Legal Education is now developing the project on a UK wide basis (http://technologies.law.strath.ac.uk/tle2/ ) While lawyers practice negotiation as a key part of their professional work, negotiated learning goes beyond professional negotiation into the notion of negotiation of meaning through interaction. "Learners negotiate with their prior knowledge, with teachers' expectations, with texts, between the variant readings of different texts, with multiple readers, concepts of examiners, and so forth" (Maharg and Paliwala 2002, 90).  A key part of teaching/learning for lawyers becomes the promotion of an understanding of the complex moves which are involved in the day to day development of meaning. In these developments, the role of networking in the management of students is as important as the learning system. Students learn to be networkers, they communicate through the network and they are managed by a network of course tutors. Systems such as these provide a learning fit between a Network Society and the learning pedagogy.

## 4. Towards Blended Learning

The early pioneers of CAL avoided crude attempts at replacing people with technology.  Any such ideas have always come and continue to come mainly from the people who control the money.  During Iolis development we were asked by the funders "How many bums will this put on seats?" Of course resource saving is important otherwise money disappears down the money pit. Nevertheless, proper integration of technology to advance learning refashions personal contact teaching.

CALI Courseware, Iolis and Electronic Textbooks are, in principle, enhancements of traditional learning resources and not substitutes for traditional teaching. They assist law schools reduce the strain of massification.  In the US video conferencing allowed Peter Martin and others to lecture simultaneously at more than one site.  Electronic video or audio lectures may be better delivered as web-casts which students can access in their own time, followed by video or text discussion.  But video can promote new ways of teaching for example of electronic negotiation in Arizona (Boyd, 1999).

Attempts to use IT based materials as entire substitutes for teaching and learning have had limited success, as in Wolverhampton (Migdal and Cartwright, 1997).  The development of entirely virtual law schools is as yet at an experimental stage.  Even in the distance learning context, there is acknowledgement of some need for onsite personal contact (Dearing, 1997, Daniel, 1996).  This is because personal contact based university education supports wider values than acquisition of knowledge (Ravenscroft 2001).  Nevertheless, existing virtual systems are developing rapidly and as they grow in sophistication, they will provide competition for some onsite learning institutions (Paliwala, 2002, Byrnes, 2001).

As wireless and multi-device ubiquitous computing becomes common, it will be increasingly possible to use more student centred and distributed computing (Oliphant 2002-3).  The potential shown by these early experiments in forms of teaching across networks has been transcended in the age of web and pod casts (Hallock 2006, Educause 2006, www.m-learning.org ). Lectures and teaching can now be delivered to the student as, when and where the student needs it. The networking era provides scope for a blend of individual and collaborative learning (Maharg and McKellar 2004, Bloxham et al 2007). Onsite learning can itself be transformed by bringing the networked convergent media into the classroom. Electronic Whiteboards enable an onsite lecturer to synchronously blend her performance with a networked multimedia experience involving various performance objects such as streamed video, audio, web pages, interactive video interaction with colleagues on the other side of the globe. (Peters 2000, Weller 2002, Ryan 2001). Yet, all the old fashioned tricks of a

good non-electronic whiteboard or poster user are available for an interactive experience. The learning student can actively participate in the lecture in the classroom by doing research on her wireless laptop and making presentations in class. Alternatively, for the learning student, ubiquitous networked computing whether involving home desktops, wireless linked laptops, PDAs or MP3s carrying web or pod-casts can lead to ubiquitous learning.

## 5. A Contest of Modes of Production?

We have already noted that networking culture is bringing about changes in the nature of legal education. The world wide web has given rise to the liberation of information to a degree which challenges previous approaches to education.  In doing this it has freed students to seek information in cyberspace. It has also provided the potential for change in pedagogy. How far can this transformation go?

Benkler's larger claim is that the new network information economy is in a state of struggle with the old/new industrial information economy. In this contest "none of the industrial giants of yore are going to take this redistribution lying down". (Benkler 2003, p.1249). However, and somewhat contradictorily, he also suggests that in the Network Information Economy there will be coexistence between market and the new decentralised and non-market modes of production.  On the other hand, Castells (2000) suggests that the new network society will be as empowering of global business and regulatory structures as it is of alternative groups. Whichever perspective one takes, the prospect is one of a contest between different ways of doing things.

The current state of commodification of legal education makes it difficult to imagine an alternative Benkler type network economy of education. And yet, there is also evidence of a persistent growth of a culture of collaborative and alternative production of legal information and courseware. The free law movement, the existence of AustLII, Loi Francophone, BaiLII, CanLII and the original Cornell's LII are excellent examples of this alternative culture. The framework for co-operation, as we have seen was established by CALI in the US and in Britain by the Law Courseware Consortium, the Electronic Law Journals and the UK Centre for Legal Education. The Creative Commons (http://creativecommons.org) and CopyLeft (http://www.gnu.org/copyleft/copyleft.html) movements are adventurous creations in which lawyers have played a prominent role. The intellectual property situation in relation to the educational use of materials is much freer than was imaginable at the end of the last millennium (Picciotto 2002). And yet still, copyright dominates and constrains.

The wealth of resources promotes the possibility of creative developments in learning to fit the network society. Nevertheless, there is no acknowledgement of a necessary path to a progressive new order. Possibilities exist that the wealth of available resources will be used in uncreative ways. A clear result of commodification of higher education is the insistence on keeping a strong hold on intellectual property rights in educational resources. This is inspite of occasional deviations such as MIT allowing free use of its resources in some programmes.

For students there are significant obstacles to collaborative learning. In "Space, Time and (E)motions of Learning" (Paliwala, 2002) I suggested that commodification, globalization and digitalisation are likely to reshape learning in ways which affect the personal power relationships between students and academics, students and institutions and academics and institutions (See also Coppola 2002, Harris 2002). In a commodified economy, students will exercise their market power to influence matters. Institutions will also put pressure on academics to deliver learning in ways which go against traditional values of intellectual life and freedom.  In the process, the most significant relationship will become one between the institution and student at the expense of that between students and academics. Commodification and globalisation, in concert with digitalisation, will also influence the

times and spaces (i.e. the geography) of learning. There is a potential for the restructuring of institutions and classrooms in various ways, which include the promotion of virtual institutions and the development of takeovers and mergers. The consequences of the General Agreement in Trade in Services (GATS) have yet to be fully worked out (Slaughter and Rhodes 2004). However, there is a growth in extraterritorial development of satellite institutions. A possible result will be decline of home-grown institutions in developing countries as well as of non-elite institutions in the developed ones, and increasing differentiation between institutions. There is also a counter-tendency of forming collaborative alliances on a global as well as national basis. Virtual institutions are unlikely to dominate in the short term, but the times and spaces in which students learn in on-site based learning are facing considerable change. The shape and dimension of these changes is by no means certain (Contrast Paliwala, 2001; with Woods, 2000). What is clear is that the changes will be uneven between regions and institutions. There is little likelihood that the enormous global and social divides in society are not replicated in the changing world of legal education. For this reason, it is important that the values of liberating pedagogy, intellectual freedom and cultural specificity shape attitudes to change. In my opinion, the significance of Benkler's perspective is not so much in predicting the future but in providing insights into the type of changes which can best promote Network culture.

For example, we have noted how Network cultures fundamentally transform the nature of authoring from an individual act to a diffuse network act (Coombe 1998, Lury 1993, Bowery 2005). Such diffusion points precisely to the loosening of individual property rights in research, teaching and learning objects. Thus creative team teaching can promote collaboration not within institutions, but also between institutions and on a global basis. Unfortunately, commodity interests restrain the effectiveness of such collaboration. And yet, there is very little evidence that jealous guardianship of intellectual property in learning objects has promoted net benefits for the institution or individual concerned. Collaboration in learning development can, on the contrary, provide a great stimulus for the transformation of learning.

Similarly, students will have effective learning tools and learning resources, but what tasks will they be asked to perform? What will the academics do? In theory, a wide range of resources will free academics from engaging in traditional teaching methods such as instructional lectures and tutorials. Great possibilities exist as to the potential merged use of personal contact and virtual classroom activities, for example group work in 'problem based learning' and research projects, discussions, role plays and moots. Significant possibilities exist of delivering the type of simulated group work involved in the Ardcalloch type virtual learning environment. Equally significantly, there may be easier management of live clinical work and street law. Much depends on whether assessment is used creatively to support new forms of learning and also whether ICT is used to make existing modes of assessment more manageable.

All this puts at issue the times and spaces in which students learn or indeed who is a law student. Will students and society benefit from the stresses this places on the age of 18+ as the university age? Will too much management militate against the creative chaos of existing learning? There is concern in educational circles about new methodologies of managed learning becoming merely self-imposed compliance with training rather than critical intellectual exploration, which is the supposed mission of university education.

Will the Network dethrone the academic? Network teaching and learning can affect academic staff in a variety of ways. The transition from an instructional mode of teaching to independent learning is as fundamental a transition for the academic as the shift from talk and chalk to electronic course development and delivery. New skills have to be learnt in the context of a new psychological attitude to the teaching learning process. More significantly, the new media can lead to a new division of labour in law teaching which divides tasks not

only between creative networks of course developers including IT support staff, but also divides teaching tasks between course managers and course tutors. The course developers will be the real subject experts, who will need also to be researchers in order to maintain their expertise. The course tutors may need to know the law, but would not need high level research expertise. The temptation will be for such roles to be filled by 'adjunct' or 'part time' staff in order to save money as has been the case with the US Center for Academic Transformation projects (Twigg 2003). The managers and IT support persons would not need knowledge of the law. If this tendency is combined with rationalisation and mergers in law schools resulting from commodification, then there is a danger that high level research based academic course developers become an even smaller minority than is the case at present. This would have implications for both teaching and research. The dethronement of the authoritarian lecturer may be a good thing, but this ought not to be at the expense of the chain connecting knowledge gleaned through deep research by academics and deep learning by students. The task therefore is to design and plan the transition in order to ensure that important intellectual and academic values are preserved. One of the most important of these is the link between teaching and research in the academic community.

The differentiation of institutions, their different forms of learning provision and the global shift towards a market based educational culture places economically weaker students in jeopardy especially as far as quality of provision is concerned. The problem may be even greater in the case of economically weaker institutions, for staff may not merely face intellectual 'dethronement' but forms of meltdown through increasing reliance on globally sourced learning material.

Negotiation of these issues cannot be done by the individual academic or law school, but will require effective organisation. In this respect, the promise of Network Information Economy (Benkler) or Network Informational Society (Castells) is that new forms of networking, collaborative development and resistance, where appropriate, will do better than standalone efforts.

I commenced this paper with a reference to the 'short history' of e-learning. This history is also dynamically connected to that slightly longer history of information and communication technologies which it is contended are reshaping society, economy and culture. However, we need continually to remind ourselves of the need for a 'longer view' towards underlying issues which shape human histories from time to time and I can think of nothing better to end than this reminder from one of the most distinguished scholars of IT and Law:

"Two hundred years of openness (in Swedish information policy) may be of limited value if the tradition cannot be rejuvenated to match the new opportunities of the electronic information era." (Seipel 1996).

**References:**

Ashley, K. 2001, What I told the Law and Computers Association of Japan about Information Technology in Law School  U. Pitt. L. Rev. 2001; 62: 545

BILETA 1991, Report of Inquiry into the Provision of Information Technology in UK Law Schools.  University of Warwick: BILETA, LTC 1991.

Boyd, W., But what is it good for? Using Interactive Video in Legal

Education and Law Practice. Journal of Information Law and Technology (JILT), 1999; 3  at http://elj.warwick.ac.uk/jilt/99-3/Boyd.html.

Benkler, Y. 2002, Coase's Penguin, or, Linux and the Nature of the Firm 112 *Yale Law Journal*, 369.

Benkler, Y 2003, Freedom in the Commons: Towards a Political Economy of Information 52 *DUKE L J* 1245

Benkler, Y. 2004, Sharing Nicely: On Shareable Goods and the Emergence of Sharing as a Modality of Economic Production 114 *Yale L J* 273

Bloxham, S.M. (2005), Widening Access and the Use of ICT in Legal Education, The International Journal of Legal Education (The Law Teacher), Vol. 39, No 1, 93-105

Bloxham, S.M., Maharg, P. & McKellar, P. (2007), Summary Report on the UKCLE/BILETA VLE Project, Journal of Information, Law & Technology (This issue) http://www.warwick.ac.uk/go/jilt .

Bowery, K. 2005, *Law & Internet Cultures.* Cambridge, Cambridge UP.

Burris, R. , et al eds.1979, *Teaching Law with Computers: A Collection of Essays*. Boulder, Colorado: Westview Press 1979.

Byrnes, W. H. 2001, A Review of the Development of an Internet Delivered LL.M Program in the United States *The Journal of Information, Law and Technology (JILT)* 2001: 3) <http://elj.warwick.ac.uk/jilt/01-3/byrnes. html/>

Clark, A. et al 1992, An exercise in the use of computer conferencing in undergraduate legal education' *Law Technology Journal* 1992; 1:2 www.law.warwick.ac.uk/ltj/1-2k.html

Clark, R. 1983, The Rationale for Computer Aided Legal Education. *Journal of Legal Education* 1983; 33: 459.

Clark, R. 1983a, A Postscript about Gary Korn's Reservations About CAI. *Journal of Legal Education* 1983; 33: 489.

Combrink-Kuiters, L. et al. 1999, Comparing Student Assignments by Computer. *14th BILETA Conference*, York 1999. http://www.bileta.ac.uk/99papers/mulder.html

Coombe, R. 1998, *The cultural life of intellectual properties: Authorship, Appropriation and the Law.* Durham, London, Duke University Press.

Coppola, N., Hiltz, S., & Rotter, N. (2002). Becoming a virtual professor: pedagogical roles and asynchronous learning networks. *Journal of Management Information Systems*, 18 (4), 169-189.

Dearing Sir R (1997), Report of the National Committee of Inquiry into Higher Education, London, HMSO http://www.leeds.ac.uk/educol/ncihe/

Educause 2006 7 Things You should know about Podcasting, Educause Website www.educause.edu/ir/library/pdf/ELI7003.pdf (accessed 28 Feb 2006).

Egri, P. 1990, Computer Assisted Learning: Legal Expert Systems and Practical Legal Training. *Journal of Professional Legal Education*. 1990; 8: 1-20.

Flower, L. 1994, *The Construction of Negotiated Meaning: A Social Cognitive Theory of Writing,* Carbondale: Southern Illinois University Press.

Friedman, P. 2000, The Class Listserv: Professor's podium or students' forum? *Perspectives* 2000; 8: 75-8.

Gard, E 2007 Using Second Life and the Concept of Virtual Property in a First Year Property Law Course http://terranova.blogs.com/terra_nova/2007/04/using_second_li.html (accessed May 15 2007).

Grantham, D. 2003, VLE's: Fr equently asked questions on Virtual Learning Environments. UKCLE Resource Notes. University of Warwick: UK Centre for Legal Education 2003. http://www.ukcle.ac.uk/resources/vles/

Goldman, P. 2001, Legal education and legal technology: An annotated bibliography, *Law Library Journal* 2001; 93:423.

Greenleaf, Mowbray, and Chung, 'A New Home Online for Commonwealth Law: A Proposal for a CommonLII'', 2004 (2) *The Journal of Information, Law and Technology (JILT)*. <http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2004_2/greenleafmowbrayandchung/ >.

Greenleaf, G, Vaile D, Chung P 2005. Unlocking IP: National Dimensions of Public Rights and the Public Domain in Australian Copyright *Canada-Australia Comparative IP and Cyberlaw Conference,* University of Ottawa, 2005. http://www.cyberlawcentre.org/unlocking-ip/background.pdf. [accessed 28 Feb 2006].

Hallock J 2006 Webcasting: Conctext, Concepts and Applications University of Washington. http://www.joehallock.com/edu/COM597_WC/index.html [accessed Feb 28 2006].

Hardy, T. 1993, Electronic conference: The report of an experiment. Harvard Journal of Law and Technology. 1993; 6: 213-35.

Harris, R. and Niven, J. 2002, Retrofitting theory to Practice: Reflections on the Development of an eLearning Community *Networked Learning* 2002, 242.

Henn, H., and Platt, R. 1977, Computer-Assisted Legal Instruction: Clinical education's bionic sibling Journal of Legal Education 1977; 28: 423-36.

Hegarty, C., and Routen, T. 1996, Statutor: Intelligent Tutoring System? Journal of Information Law and Technology (JILT) 1996; 3 http://elj.warwick.ac.uk/jiltBILETA/1996/3hegarty/default.htm.

Hinett, K., and Bone, A. 2002, Diversifying Assessment and Developing Judgement in Legal Education. In Burridge, R., et al. *Effective learning and teaching in law*. London: Kogan Page and ILT 2002, 52-80.

Hunter, D. 1994, Teaching Artificial Intelligence to Law Students. *Law Technology Journal* 1994; 3; 3.  http://www.law.warwick.ac.uk/ltj/3-3h.html

Jones, C. & Bloxham, S.M. (2001), Networked Legal Learning: An Evaluation of the Student Learning Experience. International Review of Law, Computers & Technology, Vol. 15, No. 3, pp317-331

Jones, R. 1992, Using Artificial Intelligence in Legal Computer Assisted Instruction.  *Law Technology Journal*. 1992; 2; 1. [accessed 28 Feb. 2006] http://www.law.warwick.ac.uk/ltj/2-1b.html.

Kennedy, D. 1981, *Legal education and the reproduction of hierarchy: a polemic against the system.* Cambridge (ma):AFAR.

Korn, G. 1983, Computer Aided Legal Instruction: Some Reservations. *Journal of Legal Education* 1983; 33: 473.

Laurillard, D. 1993, *Rethinking University Teaching: A Framework for the Effective Use of Educational Technology*, London: Routledge, 1993.

Le Brun, M., and Johnstone, R. 1994, *The Quiet (R)evolution: Improving Student Learning in Law*, NSW: Law Book Co.

Lodder, A., Verheij, B. 1999, Computer-Mediated Legal Argument: Towards New Opportunities in Education. *Journal of Information Law and Technology (JILT)* 1999; 2. http://elj.warwick.ac.uk/jilt/99-2/lodder.html.

Lury C 1993. *Cultural Rights. Technology, Legality and Personality.* London, Routledge.

Maharg, P. 2002, Authenticity in Learning: Transactional Learning in Virtual Communities. *Subtech 2002. International Conference on Substantive Technology in Legal Education and Practice*, University of Warwick 2002. http://www.subtech.warwick.ac.uk/programme/3_papers/pedagogy_maharg.html

Maharg, P., and Paliwala, A., Negotiating the Learning Process with Electronic Resources. In Burridge, R., et al. *Effective learning and teaching in law,*  London: Kogan Page and ILT 2002, 81-104.

Maharg P and McKellar P 2004, Virtual Learning Environments in Action. *Enhancing Learning and Teaching in Law – LILI Conference 2004.* UK Centre for Legal Education, Warwick University. http://www.ukcle.ac.uk/interact/lili/2004/papers/maharg.html

Martin, C., and Childs, B. 1998, The Electronic Law School: A Report on the Design and Development of a Prototype Intranet for Administration, Teaching and Research at Queen's University of Belfast Law School. *Seminar on using the Internet for Teaching Law*, Warwick, CTI Law Technology Centre, 1998. http://www.law.warwick.ac.uk/seminars/98-2-cm.html [Accessed 28 Feb 2006].

Martin, P. 1996, What do law students with laptops and electronic casebooks do? The Chicago-Kent Computer Section. Cornell LII 1996. www.law.cornell.edu/papers/kentrptf.htm [Accessed 28 Feb 2006].

Martin, P.1999, IT and US Legal Education - Alternative Views of the Law School: Consumer, Marketing Venue, Center of Research and Dissemination. *Journal of*

*Information   Law   and   Technology   (JILT)*,   1999;   1 http://www.law.warwick.ac.uk/jilt/99-1/martin.html [Accessed 28 Feb 2006].

Migdal, S., and Cartwright, M. 1997, Pure Electronic Delivery of Law Modules - Dream or Reality? *The Journal of Information, Law and Technology (JILT)*, 1997; 2 http://elj.warwick.ac.uk/jilt/cal/97_2migd/

Muntjewerff, A. 2000, *An Instructional Environment for Learning to solve Legal Cases PROSA*. Amsterdam: Universiteit van Amsterdam, Faculteit der Rechtsgeleerdheid 2000.

Oliphant, R. 2002, Using 'Hi-Tech' Tools in a Traditional Classroom Environment:  A Two Semester Experiment. *Richmond J L & Tech*. 2002-3; 9: 5.

Paliwala, A. 1987, The Technology of Clinical Legal Education. Yearbook of Law Computers and Technology. 1987; 3: 181-94.

Paliwala, A. & Clark, A. 1990, The Technological Clinic? Student Lecturer Interaction at Warwick Law School. LTC & BILETA Newsletter, 1990; 2; 3:81.

Paliwala, A. 1991, Creating an Academic Environment: The Development of Technology in Legal Education in the United Kingdom. *Yearbook of Law, Computers and Technology* 1991; 5: 136.

Paliwala, A. 1991a, *Information Technology in Legal Education:  A Resourcebook*. University of Warwick: Law Technology Centre 1991.

Paliwala, A. 1998, Co-operative Development of CAL Materials: A case study of Iolis. *Journal   of   Information   Law   and   Technology   (JILT)*.   1998;   3. http://elj.warwick.ac.uk/jilt/98-3/paliwala.html [Accessed 28 Feb 2006]

Paliwala, A. 2001, Learning in Cyberspace. *The Journal of Information, Law and Technology (JILT)*. 2002; 1 http://www.law.warwick.ac.uk/jilt/01-1/paliwala.html

Paliwala, A. 2002, Space Time and (e)Motions of learning. In Burridge, R. et al eds. *Effective Learning and Teaching in Law*, London: ILT Kogan-Page. 184-204.

Paliwala, A. 2005, E-Learning and Culture Change: The Iolis Story *The Law Teacher*: *Special issue on e-Learning*.2005:1,  2

Peters, O. (2000). Digital learning environments: New possibilities and opportunities. *International Review ofResearch in Open and Distance Learning*, 1 (1), http://www.icaap.org/iuicode?149.1.1.7 .

Picciotto, S. 2002, COPYRIGHT LICENSING: THE CASE OF HIGHER EDUCATION PHOTOCOPYING IN THE UK *European Intellectual Property Review* 24(9), 438-447.
Ravenscroft, A. (2001),  Designing E-learning Interactions in the 21st Century: revisiting and rethinking the role of theory. *European Journal of Education*, 36 (2), 133-156.

Seipel, P. 1996, Public access to public sector held information and dissemination policy: The Swedish Experience *Conference on Access to Public Information: A Key to Commercial Growth and Electronic Democracy* Stockholm 27-28 June 1996 http://europa.eu.int/ISPO/legal/stockholm/en/seipel.html#I1 (accessed 28 Feb 2006) .

Slaughter S and Rhoades G 2004 *Academic Capitalism and the New Economy: Markets, State and Higher Education*. John Hopkins UP, Baltimore.

Sprowl, J. and Staudt, R. 1981, Computerizing Client Services in the Law School Teaching Clinic: An Experiment in Law Office Automation. *ABA Foundation Research Journal*. 1981; 3: 699-731.

Staudt, R. 1991, Legal Mindstorms: Lawyers, Computers, and Powerful Ideas. *Jurimetrics Journal* 1991; 31: 171-85.

Staudt, R. 1993, An essay on electronic casebooks: My pursuit of the paperless case. *Chicago-Kent Law Review* 1993; 68: 291-313.

Staudt, R. 1999, In search of the origins of the electronic casebook. *Journal of Law School Computing* 1999; 1; 1 www.cali.org/jlsc/staudt.html

Trautmann, D. 1990, Computers in American Legal Education. *Law Technology Centre and BILETA Newsletter* 1995; 2; 3: 95.

Twigg, C. 2003, Improving Learning and Reducing Costs: The Program in Course Design. In Balancing Quality, Access and Cost: Using ICT to Redesign Teaching and Learning. *Seminar Proceedings, The Observatory on Borderless Higher Education and Center for Academic Transformation*, Westminster May 2003.

Weller, M. (2002). *Delivering learning on the Net*, UK: Kogan Page.

Woods, R. 2000, Order in the Virtual Law Classroom…Order in the Virtual Law Classroom - A Closer Look at American Law Schools in Cyberspace: Constructing Multiple Instructional Strategies for Effective Internet-based Legal. *The Journal of Information, Law and Technology (JILT)* 2000; 3. http://elj.warwick.ac.uk/jilt/01-3/woods.html/ [Accessed 28 Feb 2006]