

# Convergence and fragmentation: legal research, legal informatics and legal education

Paul Maharg

Cite as Maharg P., "Convergence and fragmentation: legal research, legal informatics and legal education", in European Journal of Law and Technology, Vol 5, No 3, 2014.

## ABSTRACT

Fragmentation and convergence are two discursive lenses that have been used to view changes that have taken place in the domains of legal services, the legal profession, regulation and legal education. While they may appear orthogonal, the relationships between them are intimate, sophisticated, constantly shifting and require much more analysis.

In this paper I shall argue that law schools need to engage with both processes for they are powerful actants upon the way we perceive our schools and our roles within them. They are also powerful forces upon what and how we teach, and the nature of the knowledge that is the focus of our heuristics. To exemplify this argument and to begin to examine its strength as a tool for analysis I shall focus on one area of legal education, namely the three fields of legal information literacies, legal informatics and legal writing. I shall argue that the sum of the convergence of all three would significantly improve the educational effects of the parts in our curricula. I shall explore how studies in New Media on media convergence give us models for such convergence, and can reveal the educational effects that the process may bring about.

*[A] genuine shift in the way we produce the information environment that we occupy as individual agents, as citizens, as culturally embedded creatures, and as social beings goes to the core of our basic liberal commitments.*  
(Benkler 2007, 464)

## INTRODUCTION<sup>[1]</sup>

It is something of a commonplace now that a key characteristic of the legal field in society is fragmentation. In the UK the legal profession is fragmenting under economic pressure, both from competition within the profession and from alternative business structures (Abel 2003; Boon et al 2005; Sherr & Thomson 2013). The churn of the digital domain exacerbates inequalities between firms, where access to data is highly commercialised (Gillers 2012). Regulation is becoming more complex, detailed and granular. Legal services are becoming more niche, more specialized, at BigLaw and corporate level as well as on the High Street and in legal aid, what remains of it (Galanter & Henderson 2008; Dzienkowski 2014; Kowalski 2011; Burk & McGowan 2011). As a result of this and the recent global recession, the relations between these legal functions, roles, tasks and cultures are changing significantly (Ribstein 2012). Professionalism is under pressure and morphing into splintered sub-professional identities as a result, and the general activities of title-based services are undergoing transformation (LETR 2013; Francis 2005). There are new types of law firms (Legal Zoom, Axiom, Legal Rocket, Clearspire, Riverview Law), offering for instance fixed fees and lower overheads; there are alternatives to law firms, such as LPOs (legal process outsourcing providers) and there are law firms that offer unbundled services, from document review to paralegal services. For law firms, as for media companies, the services 'bundle' is foundational. Unbundling could become, as Susskind and others have pointed out, a significantly disruptive service. In this regard legal services, with the rise of document review, paralegal support and other services, BigLaw appears to be following the example of BigMedia. In newspapers as in TV, ads and commercials are embedded in print and in channels whether we want them or not; and titles and channels are frequently bundled together; and the process of unbundling is a major force of disruption in media markets.<sup>[2]</sup>

Law Schools are not immune to the force of fragmentation. As market liberalisation proceeds apace we shall see spirals of competition and innovation taking shape that will have profound effects on the shape of legal educational curricula – what is learned, how it is learned, where, and at which times (Thornton 2012). In times of economic downturn there is

pressure on school fees, on the need to change curricular structures and timelines (Breneman 2006).<sup>[3]</sup> There is increasing specialisation of subject and programme and not merely at Masters level but at foundational level too, often with consequential silos of subjects and programmes. Above all there is the splintering effect of privatization of the public good of legal education into market share, commoditised practices, and labour trends.<sup>[4]</sup>

But alongside fragmentation there are also powerful movements towards convergence. Law firms merge; business practices converge to drive down transactional costs (Parnell 2014). Regulators are driven by consumers to homogenize and standardize legal services (Stephen 2006). In fields such as international finance regulators are increasingly merging hugely complex regulatory structures, or at least making them complementary to each other (Prabhakar 2011). Legal services are homogenizing, fuelled by the cost savings to be found in digital technologies and outsourcing (Susskind 2010).

In law schools convergence has been gathering pace. There are the homogenizing influences of technology – of institution-wide applications for data storage, transfer and analysis. Learning management systems and the corporate provision of online legal research tools have tended to standardize learning and research practices. The morphing of libraries into a universal model of the Academic Commons is gathering pace (Forrest and Halbert 2009). The effect of regulation that seeks, via professional and nationwide regulation (for example in Australia, the Australian Qualifications Framework (AQF), Tertiary Education Quality Standards Agency (TEQSA), Law Threshold Learning Outcomes (TLOs), Practical Legal Training National Competency Standards for Entry-Level Lawyers (NCS), Council of Australian Law Deans Standards for Australian Law Schools (CALD Standards)) to set standards for programmes of study also has the potential effect of converging standards, as does regulation of professional programmes such as the Graduate Diploma in Legal Practice (GDLP) in Australia or the LPC or BPTC in England and Wales (LETR 2013).<sup>[5]</sup>

The effect of fragmentation and convergence on each other is one of the key forces in HE today. The forces are not necessarily orthogonal even if the contrast may make them seem so. Just as tradition and innovation, as we shall see, are never only contrasts, so too with fragmentation and convergence. There are inherent indeterminacies, predispositions to certain kinds of movement and change, and multivalencies in their interactions. To date, though, there has been little analysis of it for law schools, or useful models through which we can analyse, understand and use its power to transform legal education for the better. In this article I argue that law schools need to pay much more attention to the processes involved, and their shaping influence on schools: on the organisation itself, on the curriculum, knowledge, skills, staff time and activity, student well-being and their activities within the school and beyond it. More broadly, they need to understand how the forces of convergence and fragmentation work to shape knowledge, society and the legal profession in particular. Conventional curricula, and the innate conservatism of law school curriculum design, I argue, must change to develop interdisciplinary ways of thinking about law's operation in the world, in order to enable students, the profession, and society itself to develop explanatory and predictive frameworks to help them understand the power and direction of these forces.<sup>[6]</sup> In this article I shall explore some of its effects on one small corner of law school activity, namely the fields of legal research, writing and informatics. I shall argue that the reconfiguration of them can reveal value, values and social capital that can contribute to the re-shaping of the law school. As we shall see, new properties emerge in the reconfigured network of the sub-domain, properties that inhere in the reconfiguration itself, not just in the individual modules or topics that make up their structures.

## LEGAL RESEARCH AND LEGAL EDUCATION

Legal research has occupied an uneasy place in the legal curricula of common law jurisdictions. It is often classed as a skill, and practised in induction or introductory subjects and, until recently, was little theorised (Callister 2010). Its physical locale is uncertain, too, sited between lecture hall and library and, recently, digital spaces online. Latterly, it has been in part recast as legal information literacy; and in many respects a new digital identity holds much potential (Paliwala 2010). This much was clear from an interview conducted two years ago with three senior law librarians in the Legal Education and Training Review (LETR) project, in England and Wales.<sup>[7]</sup>

The interview ranged widely on issues of digital literacy, and the future of legal research literacy. The interviewees were critical of the way that digital practices were superseding analogue research practices, while at the same time digital research methods seemed to be not as effective as they might be. Speaking of trainee research practices they observed that:

They [trainees in England and Wales] appeared to be generally unfamiliar with paper-based resources by comparison with digital resources. In addition they noted that trainees seemed to depend on one-hit-only searching: in other words they did not check thoroughly and contextually around their findings. They used Google extensively and their searches tended to be shallow and brief. Trainees were also increasingly unable to distinguish between the genres of legal research tools – the difference between an encyclopaedia and a digest,

for example. They seemed to lack persistence and diligence in searching, as well as organization. These values, that underlay the learning outcomes of the LILT [Legal Information Literacy Tutorials] document, needed to be worked on by students. The group were unanimous in their opinion that many academics shared the weaknesses of students and trainees in this regard.<sup>[8]</sup>

There was agreement among them that there was a need to restate the nature of research activity, given the changes wrought by the digital revolution. Interestingly, when asked whether there was a distinction between academic and professional legal research training needs, the three librarians were of the opinion that a single competence framework could accommodate both, if appropriately constructed. LILT was designed to be a 'common denominator' in all law programmes and had, according to the group, been well received.<sup>[9]</sup> There was also a need to align learning and assessment in this regard; and again, process was emphasised over content in assisting the transition from academic to some kind of professional experience:

students needed to be assessed on skills as well as content: process needed to be audited both in practice-based situations and in formal academic learning, and indeed if good habits were established early on in academic learning, supported by staff and driven in part by assessment, then it would make the job of practice-based librarians a lot easier.

Throughout the interview there was an emphasis on the critical importance of process over content, and this extended into the detail of regulation of legal literacy and legal education. Some issues that the interviewees raised included the following:

- a. The QLD [Qualifying Law Degree - the varieties of undergraduate law degree in England and Wales] is highly academic, and focused on content too much. Little space in it for focus on process, ie how students learn what they learn.
- b. The BIALL Toolkit [...] could be used as an element of the regulatory process.
- c. Mind the gap -- regulators need to focus on smoother transitions and better links between the various stages of legal education. The gaps are clear to librarians in both academia and practice, who can see learning deficits in the move into academia, and from formal learning to the more informal learning that takes place in practice contexts.
- d. From a regulatory point of view, what was needed was both more specification of legal search skills and digital literacy (hence LILT and other documents) and more focus on process.
- e. The law degree was an apprenticeship of content, not of process.
- f. Over the last few decades the law curriculum had become ever more crowded with more core content and extra options.
- g. Part of the solution to crowded curricula was better design. In particular, academic staff needed to design with library staff in joint activities. Library staff, in other words, needed to be more at the heart of the educational design process with academic staff, and involved in teaching, learning and assessment. [...]
- h. Following on from this, regulators needed to recognize the changing role of law librarians as legal educators. Currently librarians are classified occupationally in many institutions as 'Clerical Staff' or some such. This needs to change and their role as educators and digital information curators and digital information environment designers should be recognized.

The interview was of course only a snapshot of opinions from the Working Party. Nevertheless the opinions were the considered views of three experienced and respected professionals in the world of legal information science. There were two main themes. First, there was an emphasis on the importance of process, and the extent to which it had been ignored in the design of legal education. By 'process' the interviewees meant the ways that students come to learn, and the ways in which that learning is supported in the context of other legal learning, both in HE and in lifelong learning. Second, they pointed out the extent to which their roles as information scientists had historically evolved away from the conventional understanding of the roles of librarians.

Their views were representative of some of the literature on digital literacies, as we shall see. Stepping back from the detail of what they argued, one could see that underlying their comments was an implicit view of what education in information might potentially be for, what expectations we might have of the place of information science in the legal educational process, what the essence of academic and information science jobs were and were evolving into. And these cannot be separated from the wider question of what learning looks like, and which varieties of pedagogic, social and cultural models were brought to the conversation.

But interestingly, they did not articulate the view of early digital texts on information science in law and legal

education. Roznovschi (2002), for instance, writing over a decade earlier, argued that there were enormous transformations in the legal research process, amounting to the emergence of a new legal culture, a view shared in respects by others, eg Zivanovic (2002), and which at the time was part of the general discourse of radical newness that the digital domain attracted. Instead, the interviewees expressed views that were indicative of a convergence movement -- convergence in terms of academic and practice literacies, between formal and informal learning contexts, between process and content, between the work of academic staff and library staff; and in terms of the new job descriptions that were required in the areas of academic staff employment and information staff employment. But this convergence also contained fragmentation – the break-up of our old ideas of what librarians do and how they are defined by their conventional space of the physical library, as they move into new spaces, online, and flow into the work of classrooms, online learning management spaces, content management systems, and much else, as we shall see.

## CONVERGENCE AND NEW MEDIA

If we are to take this idea of convergent spaces in legal research, legal writing and informatics seriously, what shape might it take? What forms of convergence might be useful, and which strategies should we use? What might the future of legal research and legal education look like, and what role might bodies dedicated to the open movement (such as the LLIs, eg AUSTLII or BAILII) play in this future? To answer these questions we need to define first what ‘convergence’ actually means. Here, I take as my key text Henry Jenkins’ work on convergence cultures (Jenkins 2006) <sup>[10]</sup>. In the book of that name, Jenkins analyses forms of media, particularly digital New Media, and shows how conventional and New Media are converging in ways that are transforming our current understanding of media content, both corporate and grassroots. These have important effects, he argues: the struggles that define this convergence will also define how business is conducted, how education happens, and how democratic processes are enacted in our society. <sup>[11]</sup>

He starts by making a distinction common amongst media analysts between *media* and *delivery technologies* (13). A delivery technology is a tool by which we consume media – he cites the Betamax tape or 8-track audiotape as examples of defunct delivery platforms. Media, on the other hand, is a more complex concept, and he cites Lisa Gitelman’s two-level model of media. First, ‘a medium is a technology that enables communication’. Recorded sound is an example. But it is also ‘a set of associated “protocols” or social and cultural practices that have grown up around that technology’ (13-14).

As Jenkins points out, a medium’s content shifts according to the delivery technology (he cites television displacing radio as a storytelling medium), and ‘its social status may rise and fall’, but ‘once a medium establishes itself as satisfying some core human demand, it continues to function within the larger system of communication options’ (14). In the example above, for instance, TV drama and films clearly replace many of the storytelling functions of radio; but in the UK at least, radio drama survives, albeit as a niche genre, and radio itself has become a platform for talk-radio (eg BBC Radio 4) or music (BBC Radios 1-3). Similarly there is currently a shift between programmed TV, which used to be available only on a TV set, or on ‘watch-again’ TV (available on digital TV sets but also on every other digital-enabled device, eg notebooks, tablets, phones) and unprogrammed or ‘cord-cutting’ digital streaming services such as Netflix. <sup>[12]</sup>

All these shifts do not happen, of course, without agency or outside the grid of global capital. Jenkins’ book charts the struggles between corporate and grassroots in digital media, and we shall consider one instance of this below. The shifts between media, though, and knowledge of what happens when they happen and resistance to them, have been going on for some time. In an early and celebrated account of one such shift and resistance to it, the nineteenth century Scottish poet and novelist James Hogg describes a meeting between Sir Walter Scott and Hogg’s mother, Margaret Laidlaw, where Scott, a famous collector of Border stories and ballads, asked if a particular ballad that she had just chanted, Auld Maitland, had ever been printed. Hogg recorded his mother’s reply:

[There] war never ane o’ my sangs prentit till ye prentit them yoursel’, an’ ye have spoilt them awthegither. They were made for singing an’ no for reading; but ye hae broken the charm now, an’ they’ll never be sung mair. (Hogg 1972, 61-2) <sup>[13]</sup>

It is an interesting moment. As set down by Hogg (who of course had his own reasons for constructing it thus), the meeting is descriptive of two cultures, oral and print, colliding: one voluntarist, rooted in the community, dependent on historical and social continuity and the listener/speaker (Margaret Laidlaw); the other embedded in commerce and capital, dependent on market and reader/writer (Scott). But there are other antinomies at work here. Scott is a product of the volatile early nineteenth century print culture he came financially to depend upon. He is a member of the lesser gentry, an Edinburgh lawyer, Sheriff Depute of Selkirk, a Tory in politics, European in his influences, profoundly a nationalist in sentiment only; and at this point he is making his fortune from the early capitalist print nexus, which would later ruin him. Margaret Laidlaw is in many ways antithetical to this male, professionalized, commercial context: a woman of Border tenant farmer stock, a singer, memorising songs and ballads, and performing outside the nexus of

early nineteenth century capital.<sup>[14]</sup>

But she is aware of what is happening to her songs (“till ye prentit them yoursel”), as well as the effect that printing has upon them. Her position as a representative of the pre-modern and ancient is itself a marker of the shift in the cultural practices and changed transmission of modern media. And she is aware of future practice, of the way that the past is appropriated by the modern in a double-bind validation from which it cannot escape. For the oral past is at once the sacred source of the modern printed version because it is the past; and yet to exist in the grid of contemporary polite bourgeois culture it required the validating custodianship of a trusted figure, such as Scott had become, to assign to it the insignia of ancient culture. And in the process the original social event, the multi-layered community bond between listener and singer – Mrs Hogg’s ‘charm’ – is changed utterly. As a result, she predicts: ‘they’ll never be sung mair’.

Actually, the songs are still sung today, but in entirely different contexts – those of traditional music education and performance. In other words print culture does not obliterate oral culture: it changes and shifts it. Gitelman describes this with her subtle definition of media. The ‘protocols’ she alludes to include ‘a huge variety of social, economic and material relationships. So telephony includes the salutation “Hello” [...] and includes the monthly billing cycle and includes the wires and cables that materially connect our phones’ (cited in Jenkins, 14). Those wires and cables are undergoing economic shifts, as more of us abandon landlines for mobile phones as the primary mode of personal telephony.

Jenkins, though, is more concerned with the shifts and struggles that occur in contemporary culture. For him, media convergence is not a convergence of delivery technologies. In fact he points out that there is an increasing divergence (or in the terms of my argument here, fragmentation) of media platforms and types of digital devices available to us – compare the desktop computer to the phone, tablet, phablet, e-reader; and this does not take into account the multiple digital devices such as watches, car displays, sat navs, washing machine cycles and many more that are embedded in almost every aspect of our lives.<sup>[15]</sup> In an important passage he describes how media convergence

alters the relationship between existing technologies, industries, markets, genres, and audiences. Convergence alters the logic by which media industries operate and by which media consumers process news and entertainment. Keep this in mind: convergence refers to a process, not an endpoint. [...] Ready or not, we are already living within a convergence culture. (15-16)

Media ownership, he pointed out, fuels this convergence process:

Whereas old Hollywood focused on cinema, the new media conglomerates have controlling interests across the entire entertainment industry. Warner Bros. produces film, television, popular music, computer games, Web sites, toys, amusement park rides, books, newspapers, magazines, and comics. (16)

Jenkins’ arguments have particular relevance for the position that the technologies of legal education have reached, in the second decade of the twenty-first century. On the doorsteps of our faculties are publishing corporations such as Pearson eager to dominate and commodify our digital educative practices and play the role that Jenkins describes for Warner Bros above, in supplying digital infrastructure as well as content.<sup>[16]</sup> Increasingly our institutions are signing up into institution-wide systems that, decades ago, were at first used purely by our Finance Offices to streamline their work. Later, administrative units adopted them; and now management and IT Central are increasingly forcing faculty to accommodate their practices to the shape and purpose of software that may not necessarily offer us what we need to improve our teaching and our students’ learning.<sup>[17]</sup>

But it’s not all bad news in Jenkins’ book. Following this process of convergence, he tracks consumer practices within it, and notes how convergence can create affordances that were simply not possible before that process occurred. Thus, nowadays:

fans of a popular television series may sample dialogue, summarize episodes, debate subtexts, create original fan fiction, record their own soundtracks, make their own movies – and distribute all of this worldwide via the Internet. (16)<sup>[18]</sup>

Much in this new world is uncertain according to Jenkins, and still in the process of being played out. Are the gatekeepers of media constantly losing and regaining control (for instance the struggles over Napster) or have they now too much control (one might cite the dominance of iTunes)? Is it a top-down process, with consumers completely in

thrill to new media corporates, or do consumers, now much more active, migratory and socially connected, have more impact on new media content and process than they had before the advent of the digital commercial domain? The answer lies somewhere in-between according to Jenkins, and his book explores how this works out in practice.

One chapter is particularly relevant to legal research and education. In 'Why Heather Can Write: Media Literacy and the *Harry Potter* Wars' Jenkins describes the fan literature and its culture that grew up on the web around the Potter novels. Fictionalley.org alone hosted 'more than 30,000 stories and book chapters, including hundreds of completed or partially completed novels' (179). Jenkins characterized this as 'a story of participation and its discontents' (171), where on the one hand the religious right-wing in the US tried to ban the Potter books from libraries and bookshops because of its subject matter (characterized as the occult), while Warner Bros claimed that web-based fan fiction infringed the studio's IP, sent cease-and-desist letters and otherwise attempted to shut down the fan sites.

All this was organised by the fans themselves, who also organized publicity campaigns against both the religious right and Warner Bros, forcing the studio to negotiate and compromise. The entire fan enterprise is an example of participatory culture on a global scale. As Jenkins describes it, '[t]hese kids are mapping out new strategies for negotiating around and through globalization, intellectual property struggles, and media conglomeration' (205). In terms of Gitelman's definition of media, the Potter fans' online culture changed the form and effect of media, (print to internet), and in doing so challenged the legal, religious and social attitudes towards the books they loved and learned so much from. The culture and context, in other words, mattered enormously to the message.

The fan communities also helped the fans to become better writers. Jenkins analysed the communities generating the fan fiction in some detail, showing the remarkable learning environment that was being created by fans in the fan fiction websites. The fans themselves created the conditions under which they could create, discuss and receive feedback upon their work, and learn from others, particularly more experienced writers who would take up a coaching role.

In many respects what Jenkins describes the fans doing is best practice in the development of writing skills in any discipline. The following table maps good coaching in writing skills with the evidence that he describes:

**Table 1: Coaching and writing skills**

	<b>Good coaching practices (Flower 1994)</b>	<b>Potter fan fic sites</b>
1	Create a specific site for writing	Eg <a href="http://www.fictionalley.org">www.fictionalley.org</a> (179)
2	Provide mentors for new writers	'forty mentors ... welcome each new participant individually'. (179)
3	Set up peer-review	'At The Sugar Quill, <a href="http://www.sugarquill.net">www.sugarquill.net</a> , every posted story undergoes beta reading'. (179)
4	Provide critique	'constructive criticism and technical editing' is provided. (179)
5	Introduce writers to the techniques of multiple drafting	'New writers often go through multiple drafts and multiple beta readers before their stories are ready for posting'. (180)

What is remarkable is that the fan fic sites are organised much as the much larger and more sustained crowd-sourced projects such as Wikipedia and SourceForge are organised: by the crowd, who accept the authority of a small number of what might be termed editorial staff to arrange most aspects of the online environment for their collaborative work. The key question for legal educators is how might we organise our curricula such that we can leverage the power and intensity of such learning.

## LEGAL INFORMATICS

The collaborative, ground-up communities of practice that converged on the web around the Potter novels are by no means the only such example of participative community-building. Wikipedia is the giant example, but there are many

others; and many theorists who have, for a decade and more, pointed to the profound capabilities of such communities to shape and sustain what Giddens has termed a 'narrative of identity' (Giddens 1991b; see also Shirky 2009). As Benkler has observed of the domain of digital capitalism, peer production can be a new mode of collaboration, one where individuals participate in joint production in return for status within or beyond the collaboration (Benkler 2007; 2011). Others such as Hardt and Negri (2000) have described the potential changes within the structure of capital that can be brought about by such collaborative effort:

Today we participate in a more radical and profound commonality than has ever been experienced in the history of capitalism. The fact is that we participate in a productive world made up of communication and social networks, interactive services and common languages. Our economic and social reality is defined less by the material objects that are made and consumed than by co-produced services and relationships. Producing increasingly means constructing co-operation and communicative commonalities.

All of them show us an alternative future for legal education, to that where our means of production (and its content) are controlled directly by the market. The field of legal informatics gives us many extraordinary examples of collaboration and communication initiatives. There is work on linked open data in the legislative domain (Nečáský *et al* 2013); e-petition systems and political participation (Böhle & Riehm 2013); deliberation in crowd-sourced legislative processes (Aitamurto & Landemore 2013); <sup>[19]</sup> unbundling of legal services and the implications of this for academic and professional law librarians (Noel 2013); and in judicial communication systems (Rowden *et al* 2013). <sup>[20]</sup> The instance of Aitamurto & Landemore is interesting because their findings indicate that first, and contrary to other studies, there is deliberation in the crowdsourcing process that occurs organically among participants, despite lack of incentives; and second, there is a strong educative element in crowd-sourced law-making process, with participants sharing information and learning from each other.

One example of such an event is a 'hackathon' – often an interdisciplinary meeting of coders, designers and others (eg graphic designers) coming together to work on code projects, sometimes with prizes for best projects. A recent one held in New York in September 2014 was entitled 'Code the Deal', organised by Legal Hackers and the US law firm Nixon Peabody. The projects worked on in the event included BEcology (software to enable start-ups to communicate with investors) DoVault (software that uses facial recognition to authenticate individuals accessing legal documents – third prize), and Obsidian Redline – software for collaborative drafting and discussion of legal documents – the first prize-winner. 16 coding projects were worked upon, all of which were designed to improve transactional legal practice.

Forms of convergence such as this, I would argue, are what are needed in legal education. Their qualities are those of the New Media communities identified by Benkler (2007). In the domain of education there are four areas in which such convergence could take place: in organizations, resources, design and assessment. Most formal legal education takes place in organizations that act as silos for knowledge, isolated, often in competition with each other, rarely acting in concert with other organizations in education or in society generally. The organization's educational resources often consist of handbooks, lectures, course outlines – closely-guarded downloads, which are seldom freely available, unless (rarely) part of an OER programme or a MOOC. The design of programmes is often on a hierarchical block model: modules or subjects, with lock-step advance, where subjects within a module must be passed in series, and where modules must be passed in series too. Assessment of substantive content often takes the form of snapshot assessment, in essays or in examinations. <sup>[21]</sup> And too often there is little rigorous, systematic educational research on the forms of legal education that are used.

Convergence thinking, however, contrasts strongly on these issues. Organizations would no longer be unitary, solitary. They would have weak boundaries vis-à-vis other organizations, and by the action of co-operating with each other, would develop a strong presence through the integration of resources and learning networks. Classic examples are the MIT and OU OpenCourseware initiatives. <sup>[22]</sup> Inter-institutional MOOCs are beginning to form, but are still relatively new. The focus of learning and teaching will tend to be less on static content, and more on web-integrated and aggregated content. Learning will not be tied to lock-step module but will be described as understanding and conversation, and a form of just-in-time learning, associated with tasks that draw on real-world activities. There will be assessment of learning within the context of learning, not separated from it, ie a form of situated learning; and this will apply to law school's own research, akin to the research carried out in Medical Education Units in Medical Faculties.

## EXAMPLES OF CONVERGENCE

How might this work in practice? We shall briefly explore two examples, one from the domain of professional legal education, and the other from legal informatics. Both examples illustrate the necessity of taking an interdisciplinary approach that takes account of the depth of theory and practice in other disciplines and applies it, phronetically, to law.



## 1: ARDCALLOCH LEGAL INFORMATION AND ADVICE SERVICE (ALIAS) – THE CONVERGENCE OF DIGITAL RHETORICS AND LEGAL RESEARCH

In the Glasgow Graduate School of Law's Diploma in Legal Practice we enabled collaborative learning by dividing students into groups of four called virtual firms. Each firm had a web site, a workspace and communication tools that were embedded within a virtual web town called Ardcalloch – effectively a representation of a typical west-coast small provincial Scottish town (Maharg 2007).

Amongst many other activities in the firms and as part of the legal writing stream of the programme, we asked students to write articles for client bulletins. These would appear as copy for the firm's client bulletin on their firm websites. Each student was required to write at least two articles, each no more than 500 words or so, over the course of the year, and would be given feedback on the copy they wrote. The initiative, we hoped, would give students an opportunity to research legal issues, to write legal copy for clients, and provide an activity in which they could negotiate between their interests and those of the fictional clients they were constructing as an audience.

The first year we ran it, however, the quality of the student articles was disappointing. They were highly variable, with many of them little more than versions of 2,000 word academic essays compressed into 500 words. Nor should we have been surprised at this, since students had been socialized into producing such texts during the years of their undergraduate careers. Students themselves were critical of the artificiality of the task, which lacked depth, structure and authenticity.

Clearly the form of the activity needed to be rethought. So too did the method of text production which emphasised individual production. The individual articles had been produced on word processors by singleton students, and uploaded to their firm's website. Yet following the work of Deegan (1995), Christensen (2006; 2007), Stratman (2002) and others we held writing as a social activity, where we wanted to emphasise:

- networks of meaning
- distributed learning across the internet and other forms of knowledge representation
- collaborative learning at all levels

Clearly, these values were not in evidence in our design of the task. In addition, and in feedback after the first year, students told us that they needed more information about how to link research to writing, how to write the articles for clients via the web rather than for academic audiences, and how to write collaboratively. The activity needed re-design, therefore, and along the lines outlined above, namely the organisation, resources, design and assessment of the simulation.

In the second iteration of the initiative therefore, we invited a web writer who wrote copy for a large Scots law firm, together with the PSL (Professional Support Lawyer) responsible for liaison with the web writer in the law firm. Their advice to students was presented as two webcasts. To address the issue of social and collaborative writing, we re-designed the writing environment. Articles were drafted and collated on a wiki (see Figure 1), which was represented as a Law Society of Ardcalloch initiative – the Ardcalloch Legal Information and Advice Service (ALIAS). Within the environment of the wiki students would:

- see each other's drafts (collaborative learning)
- amend firm's drafts (collaborative working)
- be responsible for individual articles (ownership...)

Staff could:

- see student drafts (observe collaborative learning and working)
- comment on drafts (give feedforward on individual work)

The staff involved in giving feedback were in fact specially-trained tutors called 'Practice Managers' – effectively, experienced solicitors who had been trained to be life-coaches to the firms of four students, and to enhance learning and



trust within the firm. This was key, for the type of feedforward and feedback that we would expect them to give to students would substantially increase the rate at which students learned the markers of good professional writing.

In this intervention, then, we directed students to the markers of client-centred text and web-focused text. In the process, students learned about the differences between academic content and tone, and professional, consultative writing styles. They began to appreciate the differences between writer-centred text (where the writer’s purpose and concerns figure largely in the text) and reader-centred text (which invites the reader into the text, and deals with his or her concerns). They also learned about the differences between professional writing produced for paper-based output and web-based output. Students also would have the opportunity to practise collaborative writing in a space where the history of their drafts would be transparent to the student group, and to the Practice Manager. The wiki environment together with the other revisions we implemented succeeded in improving student writing, which became in the second year much more client-centred.

There were interesting issues arising out of ALIAS for those of us involved in designing it: <sup>[23]</sup>

1. In its legal research element, the activity required students to seek and authenticate legal information for an audience that is usually largely interested in the result of legal advice, not the infrastructure of evidence – and particularly those clients who would have access to the web, but may not have access to legal databases or the competence or time to use them. The *audience of legal research*, in other words, mattered crucially: who wanted what information, why, and to what purpose? These questions of the legal research process were almost never asked in students’ undergraduate experience of legal education.
2. In asking students to link an article to the work of the virtual firm we were asking them to *link text and action on the web*. True web-based text takes advantage of social networking contexts and the social web. The webcasts and the wiki context of ALIAS certainly helped, but it was clear to us that much more of this sort of work was required, not just at the end of formal legal education, in the postgraduate legal education programme the students were currently in, but throughout their legal education.
3. If the Law Society of Ardcalloch were interested in producing an initiative such as ALIAS, why don’t other, and real, professional bodies get involved in such activities? Or a consortium of real firms? These points, which went to the heart of a number of regulatory and consumer issues, also raised *the question of a legal commons*, as discussed by Benkler (2007). Fiction thus can comment on reality – a point that was actually made by some students in their feedback.

All three issues require further exploration, and it is fair to say that we did not address them fully in our experiment. The first point clearly involves the use of open and free resources such as AUSTLII, BAILII and CANLII. How, for instance, could students provide authentication of advice for clients who were not legally trained? How might deep linking of legislation, for instance, be of use to clients (eg in-house counsel) who might want to investigate bulletin advice further, possibly to advise? The second point also had implications for the use of free legal sources. How might we give students practice in developing levels of authentication appropriate for different audiences? This requires habitual practice but also levels of communicative and particularly web-based competence that is seldom the focus of legal education at undergraduate stages.

The third point goes beyond the writing activity that was at the centre of this intervention. The simulation models a view of regulation that goes beyond the policy & audit model of regulatory activity. Instead, there is a view of regulation that is linked more to outcomes-focused regulation, to a view of the centrality of public awareness and understanding of law, legal activity and legal culture. It is a view where the customer/client focus of much legal services regulation is replaced by a citizen focus.

It is a jurisprudential issue, too, and goes to the heart of regulatory concerns and debates – for example the Hardwig (1985) / Fuller (1994) debate on the nature of social epistemology, the nature of power and informational asymmetries in society, and Murray & Scott’s definition of the modalities of control exercised by regulators (2002) –

	Norms	Feedback	Behavioural Modification	Example	Variant
<b>Hierarchical</b>	Legal Rules	Monitoring Powers/Duties	Legal Sanctions	Classical Agency Model	Contractual Rule-Making and Enforcement
<b>Competition</b>	Price/Quality Ratio	Outcomes of Competition	Striving to Perform Better	Markets	Promotions Systems

Community	Social Norms	Social Observation	Social Sanctions – eg Ostracization	Villages, Clubs	Professional Ordering
Design	Fixed within Architecture	Lack of Response	Physical Inhibition	Parking Bollards	Software Code

Scott observes that when governments consider a policy problem – unsafe food and passive smoking are two of the examples he considers – regulatory structures and processes have become the general approach to risk mitigation and behaviour modification. Scott advocates a different approach. Instead of replacing prior regimes with a regulatory agency, a ‘more fruitful approach would be to seek to understand where the capacities lie within the existing regimes, and perhaps to strengthen those which appear to pull in the right direction and seek to inhibit those that pull the wrong way’ (Scott 2008, 25). He quotes the UK Better Regulation Task Force guidance, first issued in 2000, where public policy decision makers are advised when considering regulatory change to consider self-regulation, and then ‘if less costly alternatives were not viable, plan a more hierarchical form of intervention’ (Scott 2008, p. 26).<sup>[24]</sup> Observing that ‘regulatory reform programmes have nowhere led to a substantial reduction in governmental activity in regulation, nor more importantly, a qualitative change in the character of regulatory governance’, Scott advises the use of what he calls ‘meta-regulation’, namely the idea that ‘all social and economic spheres in which governments or others might have an interest in controlling already have within them mechanisms of steering – whether through hierarchy, competition, community, design or some combination thereof’ (Scott 2008, 27).<sup>[25]</sup> Scott outlines two challenges to this approach – identification of the mechanisms at play, and creating ways to steer those that are not securing ‘desired outcomes’.

What is useful about Scott’s approach is the co-option of culture and prior history of community practice into the regulatory project, while acknowledging the need for change and creating the ways by which change can come about. It is a subtle approach precisely because meta-regulation is an alternative to a governmental response to crises that is becoming more common, namely ‘mega-regulation’ (Scott cites responses to the BSE and Enron crises as examples of this). Scott names the Legal Services Act as one area where meta-regulation may be appropriate. At the same time, though, Scott acknowledges that the local conditions of any economic activity, including professional activities, will need to be governed by a hybrid mix of the approaches outlined in Table 1 above. He gives an example of his approach in action that illustrates his view of a multimodal approach to regulation, namely the regulation of roads and road traffic.

In summary on the example of ALIAS, therefore, the simulation opens up such debates and takes the argument as to skills-based learning and free informational sources and resources such as AUSTLII to the level of jurisprudential debate. But it also reveals the extent to which convergence of media, skills, cognition and high-level regulatory and jurisprudential debate can take place in legal education innovation. And at the same time it shows us how far such innovation has yet to go before our capacity to design for transmedia learning meets the capacity of, for instance, even the *Potter* fan fiction sites.

**Figure 1: Ardcalloch Legal Information and Advice Service (ALIAS)**



## 2: LEGAL INFORMATICS LITERACY

As John Palfrey has pointed out, the future of legal informational services is interdisciplinary – another form of convergence. He cites the convergence of ‘statistics, sociology, computer science, neuroscience’ and others (Palfrey 2010, 171). <sup>[26]</sup> He also notes that the digital-plus age will always be one of multiple media formats (Palfrey 2010, 175), and in this he agrees with Jenkins’ sophisticated concept of media convergence – though as in the case of televisual platforms cited at note 12 above, such convergence often involves fragmentation of media formats as well. As educators, we do not need to know how to code up environments in order to take part in online games; but we do need to understand the culture, potential and limitations of such environments as leisure environments and educational environments if we want to design them for education.

The same can be said for legal informatics literacy. Law librarians, legal academics and law students do not need substantive courses in legal informatics in order to appreciate the relevance of the discipline to a digital age (Paliwala 2010). Haapio and Passera make this point in a powerful post at VoxPopuLII:

Lawyers are communication professionals, even though we do not tend to think about ourselves in these terms. Most of us give advice and produce content and documents to deliver a specific message. In many cases a document – such as a piece of legislation or a contract – in itself is not the goal; its successful implementation is.

They quote a range of interesting and compelling examples, set out in the footnote below.<sup>[27]</sup> All the projects illustrate the theoretical range and practical utility of informatics as a open space where other disciplines and legal sub-domains – art, rhetoric, design, legal research, clinic, legislative drafting amongst many others – converge to create new and interdisciplinary approaches to legal education. A number of them, Candy Chang's in particular, do for actual street law projects what we were asking our students to do in the environment of Ardcalloch for simulated clients. All of them involved a wide variety of professionals, as did our ALLIAS project, which involved IT developers, web designers, professional web writers, lawyers and academics. They are excellent examples of how we could build interdisciplinary courses and projects not *for* students but with and alongside students, for the benefit of students, and for the benefit of many others beyond the law school. They are also good examples of how legal research, legal writing and legal informatics can be converged.

## CONCLUSION

As Dennis Kim-Prieto pointed out, legal research education has been 'slow to adopt information literacy as a framework, despite the demonstrated utility of this framework when applied to library instruction and assessment' (Kim-Prieto 2011). In his perceptive history of legal informatics Paliwala (2010) explained why legal informatics was slow to develop in law schools. As I have pointed out, however, the forces of fragmentation and convergence play a key role in the development of legal education, as well as the development of the legal profession and the regulation of both; and are shaping the development of new forms of legal informatics and new convergences in the law school. Those schools that are aware of the dynamics are those that are creating innovative curriculum interventions for and with students.

Perhaps the most useful approach we can take to these forces in legal education is to help our students understand them and their influences in society, and to do so from an inductive educational perspective (Prince and Felder 2006). As educational designers, we need to acknowledge the changing relationship of the three fields of legal research, informatics and writing to each other, and the ways in which the convergence of the three in a new legal subject could create a powerful way of learning new legal knowledge. This apparently new nexus, in one sense though, is not new at all: it is a resurgence of the ancient tropes of rhetoric in an entirely different context.

Are there any further practical conclusions that can be arrived at? I would argue that there are at least five:

1. At the end of his introduction to this journal's special issue on legal informatics, Paliwala noted the decline of the relationship between legal informatics and law. It may be that the tide is turning; recently, the state Bar of Massachusetts set standards for lawyering literacy in legal informatics. Legal educators need to take this forward in our various jurisdictions and *work with regulators and others to shift the focus on programmes from legal content to legal skills and deep discussion and practice of legal values.*
2. From other disciplines, develop the concept of *collective competence* and *collective responsibility* around issues such as open and free resources, and do this via interdisciplinary approaches. In this way, and as Gitelman advocates, *change the set of 'associated "protocols" or social and cultural practices that have grown up around [a] technology'*
3. Oliver Goodenough's e-curriculum (2013) gives us useful pointers as to what a curriculum heavy with technology might look like; but we can do much more to *embed and converge media.*<sup>[28]</sup> We can use crowdsourcing, visualisation and the tools of legal informatics in our classes, and in our understanding of legal education itself.
4. *Use legal information creatively, imaginatively and practically,* as the legal informatics examples demonstrate, in order to re-imagine and re-create the legal curriculum
5. *Focus on complex and sophisticated simulation environments* in which we can use primary legal resources with students, and practise using these in a wide variety of contexts within our teaching programmes. Above all, take the means of production as much as possible into our own hands.

## REFERENCES

- Abel, R. L. (2003). *English Lawyers between Market and State: The Politics of Professionalism*. Oxford; New York: Oxford University Press.
- Aitamurto, T., & Landemore, H. (2013). Democratic participation and deliberation in crowdsourced legislative processes: The case of the law on off-road traffic in Finland. Presented at the ComTech 13 Workshop on Large-scale Ideal Management and Deliberation Systems, Munich. Retrieved from [https://web.archive.org/web/20131104094259/http://comtech13.xrce.xerox.com/papers/paper1\\_aitamurto\\_landemore.pdf](https://web.archive.org/web/20131104094259/http://comtech13.xrce.xerox.com/papers/paper1_aitamurto_landemore.pdf)
- Alfonso, A. (2013, November 12). How academia resembles a drug gang [Blog]. Retrieved from <http://blogs.lse.ac.uk/impactofsocialsciences/2013/12/11/how-academia-resembles-a-drug-gang/>
- Benkler, Y. (2007). *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven Conn.: Yale University Press.
- Benkler, Y. (2011). *The Penguin and the Leviathan: How Cooperation Triumphs over Self-Interest*. New York: Crown Business.
- Böhle, K., & Riehm, U. (2013). E-petition systems and political participation: About institutional challenges and democratic opportunities. *First Monday*, 18(7). Retrieved from <http://firstmonday.org/ojs/index.php/fm/article/view/4220>
- Boon, A., Flood, J., & Webb, J. (2005). Postmodern Professions? The Fragmentation of Legal Education and the Legal Profession. *Journal of Law and Society*, 32(3), 473–492. doi:10.1111/j.1467-6478.2005.00333.x
- Boys, J. (2002). Managed learning environments, joined up systems and the problems of organisational change. Retrieved from <http://www.tinyurl.com/2bpofl>
- Breneman, D. W. (Ed.). (2006). *Earnings from Learning: The Rise of For-profit Universities*. Albany, NY: State University of New York Press.
- Callister, P. D. (2010). Time to Blossom: An Inquiry into Bloom's Taxonomy as a Hierarchy and Means for Teaching Legal Research Skills. *Law Library Journal*, 102, 191.
- Christakis, N. A. (2013, July 19). Let's Shake Up the Social Sciences. *The New York Times*. Retrieved from <http://www.nytimes.com/2013/07/21/opinion/sunday/lets-shake-up-the-social-sciences.html>
- Christensen, L. M. (2006a). *Going Back to Kindergarten: Considering the Application of Waldorf Education Principles to Legal Education* (SSRN Scholarly Paper No. ID 899218). Rochester, NY: Social Science Research Network. Retrieved from <http://papers.ssrn.com/abstract=899218>
- Christensen, L. M. (2006b). *Legal Reading and Success in Law School: An Empirical Study* (SSRN Scholarly Paper No. ID 924650). Rochester, NY: Social Science Research Network. Retrieved from <http://papers.ssrn.com/abstract=924650>
- Daniels, C. W. (2013). *A Convergent Model of Hope: Remixing the Quaker Tradition in a Participatory Culture*. Fuller Theological Seminary, Pasadena, CA. Retrieved from [http://www.academia.edu/7621090/A\\_CONVERGENT\\_MODEL\\_OF\\_HOPE\\_REMIXING\\_THE\\_QUAKER\\_TRADITION\\_IN\\_A\\_PARTICIPATORY\\_C](http://www.academia.edu/7621090/A_CONVERGENT_MODEL_OF_HOPE_REMIXING_THE_QUAKER_TRADITION_IN_A_PARTICIPATORY_C)
- Deegan, D. H. (1995). Exploring Individual Differences among Novices Reading in a Specific Domain: The Case of Law. *Reading Research Quarterly*, 30(2), 154–170. doi:10.2307/748030
- Depart for Business, Innovation & Skills. (n.d.). Better regulation framework manual - Publications - GOV.UK. Retrieved December 23, 2014, from <https://www.gov.uk/government/publications/better-regulation-framework-manual>
- Dobbs, D. (2013, April 12). When the Rebel Alliance Sells Out. *The New Yorker*, April 12. Retrieved December 9, 2014, from <http://www.newyorker.com/tech/elements/when-the-rebel-alliance-sells-out>
- Downes, S. (2014). Stephen's Web. Retrieved November 11, 2014, from [www.downes.ca](http://www.downes.ca)
- Dron, J., Anderson, T., (2007). Collectives, Networks and Groups in Social Software for E-Learning (Vol. 2007, pp. 2460–2467). Presented at the World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education. Retrieved from <http://www.editlib.org/p/26726/>
- Fishleigh, J. (2013). Turning Theory into Practice: Fee Earner Training Using the BIALL Legal Research 5 Stage Model. *Legal Information Management*, 13(02), 124–126. doi:10.1017/S1472669613000327
- Flower, L. (1994). *The Construction of Negotiated Meaning: A Social Cognitive Theory of Writing* (1st edition.). Carbondale: Southern Illinois University Press.
- Foley, J. M. (1991). *Immanent Art: From Structure to Meaning in Traditional Oral Epic*. Bloomington, Indiana: Indiana University Press.
- Francis, A. M. (2005). Legal ethics, the marketplace and the fragmentation of legal professionalism. *International Journal of the Legal Profession*, 12(2), 173–200. doi:10.1080/09695950500226623
- Fuller, S. (1994). The Constitutively Social Character of Expertise. *Int. J. Expert Syst.*, 7(1), 51–64.
- Goodall, A., & Oswald, A. (2014, October 9). Do the social sciences need a shake-up? Retrieved December 11, 2014, from <http://www.timeshighereducation.co.uk/features/do-the-social-sciences-need-a-shake-up/2016165.article>
- Goodenough, O. R. (2013). *Developing an E-Curriculum: Reflections on the Future of Legal Education and on the Importance of Digital Expertise* (SSRN Scholarly Paper No. ID 2255005). Rochester, NY: Social Science Research Network. Retrieved from <http://papers.ssrn.com/abstract=2255005>
- Graham, C. (2001). *Deconstructing Ireland: Identity, Theory, Culture* (Edinburgh: Edinburgh University Press).

- Haapio, H., & Passera, S. (2013, May 15). Visual law: what lawyers need to learn from information designers. Retrieved from <http://blog.law.cornell.edu/voxpath/2013/05/15/visual-law-what-lawyers-need-to-learn-from-information-designers/>
- Hardwig, J. (1985). Epistemic Dependence. *Journal of Philosophy*, 82(7), 335–349.
- Harrington, W. G. (1984). Brief History of Computer-Assisted Legal Research, *A. Law Library Journal*, 77, 543.
- Hogg, J. (1972). *Memoir of the Author's Life and Familiar Anecdotes of Sir Walter Scott*. (D. S. Mack, Ed.). Edinburgh: Edinburgh University Press.
- Inman, P. (2014, May 4). Economics students call for shakeup of the way their subject is taught. Retrieved December 11, 2014, from <http://www.theguardian.com/education/2014/may/04/economics-students-overhaul-subject-teaching>
- Jenkins, H. (2006). *Convergence Culture: Where Old and New Media Collide*. NYU Press.
- Kim-Prieto, D. (2011). The road not yet taken: How law student information literacy standards address identified issues in legal research education and training. *Law Library Journal*, 103(4), 605–30.
- Lazare, S. (2014, March 26). #USMFuture: How One Small School Is Resisting “Corporate War on Public Education.” Retrieved December 11, 2014, from <http://www.commondreams.org/news/2014/03/26/usmfuture-how-one-small-school-resisting-corporate-war-public-education>
- Maharg, P. (2007). *Transforming Legal Education*. Burlington, VT: Ashgate.
- Maharg, P., & Muntjewerff, A. J. (2002). Through a screen, darkly: Electronic legal education in Europe. *The Law Teacher*, 36(3), 307–332. doi:10.1080/03069400.2002.9993111
- Murray, A., & Scott, C. (2002). Controlling the New Media: Hybrid Responses to New Forms of Power. *The Modern Law Review*, 65(4), 491–516.
- Nečaský, M., Knap, T., Klímek, J., Holubová, I., & Vidová-Hladká, B. (2013). Linked Open Data for Legislative Domain - Ontology and Experimental Data. In W. Abramowicz (Ed.), *Business Information Systems Workshops* (pp. 172–183). Springer Berlin Heidelberg. Retrieved from [http://link.springer.com.virtual.anu.edu.au/chapter/10.1007/978-3-642-41687-3\\_17](http://link.springer.com.virtual.anu.edu.au/chapter/10.1007/978-3-642-41687-3_17)
- Noel, K. A. (2013). *The Unbundling of Legal Services and its Implications for Law Librarianship* (SSRN Scholarly Paper No. ID 2285052). Rochester, NY: Social Science Research Network. Retrieved from <http://papers.ssrn.com/abstract=2285052>
- Palfrey, J. (2010). Cornerstones of Law Libraries for an Era of Digital-Plus. Retrieved from <http://dash.harvard.edu/handle/1/3745923>
- Paliwala, A. (2010). A History of Legal Informatics. *European Journal of Law and Technology*, 1(1). Retrieved from <http://ejlt.org/article/view/21>
- Parker, C. (2002). *The Open Corporation: Effective Self-regulation and Democracy*. New York: Cambridge University Press.
- Parnell, D. J. (2014). Richard Susskind: Moses to the Modern Law Firm. Retrieved December 9, 2014, from <http://www.forbes.com/sites/davidparnell/2014/03/21/richard-susskind-moses-to-the-modern-law-firm/>
- Prabhakar, R. (2011). Globalized finance and national regulation: The influence of internationalization on supervisory consolidation. *St Antony's International Review*, 6(2), 151–81.
- Prince, M. J., & Felder, R. M. (2006). Inductive teaching and learning methods: Definitions, comparisons, and research bases. *Journal of Engineering Education*, 95, 123–138.
- Ribstein, L. E. (2012). Delaying the corporation. *Wisconsin Law Review*, 2012(2), 306–332.
- Rowden, E., Wallace, A., Tait, D., Hanson, M., & Jones, D. (2013). Gateways to Justice: Design and Operational Guidelines for Remote Participation in Court Proceedings. University of Western Sydney. Retrieved from <http://www.uws.edu.au/justice/justice/publications>
- Roznovschi, M. (2002). *Toward a Cyberlegal Culture* (2 edition.). Ardsley, N.Y: Martinus Nijhoff.
- Sherr, A., & Thomson, S. (2013). Tesco law and Tesco lawyers: Will our needs change if the market develops? *Onati Socio-Legal Series*, 3(3), 595–610.
- Stephen, F. (2006). *An Economic Perspective on the Regulation of Legal Service Markets*. Retrieved from <http://archive.scottish.parliament.uk/business/committees/historic/justice1/inquiries-02/j1-lps-pdfs/lps-099.pdf>
- Stratman, J. F. (2002). When Law Students Read Cases: Exploring Relations Between Professional Legal Reasoning Roles and Problem Detection. *Discourse Processes*, 34(1), 57–90. doi:10.1207/S15326950DP3401\_3
- Susskind, R. (2010). *The End of Lawyers? Rethinking the nature of legal services* (Revised edition.). Oxford; New York: Oxford University Press.
- Thornton, M. (2012). *Privatising the Public University: The Case of Law*. London: Routledge.
- Webb, J., Ching, J., Maharg, P., & Sherr, A. (2013). *Setting Standards: The Future of Legal Services Education and Training Regulation in England and Wales*. Retrieved from <http://letr.org.uk>
- Zivanovic, A. (2001). *Guide to electronic legal research*. Markham, Ont.; Charlottesville, Va: Butterworths.

[1] This article is a revised version of a seminar paper given to Melbourne Law School, ANU College of Law Legal Workshop, and Chinese University of Hong Kong. I am most grateful to colleagues for their comment at these seminars. The article will form chapter five of a monograph I am currently writing, provisionally entitled *The Genealogies of Legal Education* in which I explore and map some of the unregarded pasts of current legal education and alternative futures for the discipline.

[2] The process of bundling is endemic in the infrastructure of many industries. In the music industry for example the classic format of the vinyl disk bundles tracks that, in a digital format, is disrupted by applications such as last.fm (<http://www.last.fm/>) that allow users to select, listen to and archive single tracks. In the academic industry an equivalent is the unbundling of single articles from journal issues. The rise of citation managers such as Mendeley, where users would freely exchange cloud-based instances of papers between them prompted, according to a number of commentators, the purchase of Mendeley by Elsevier, one of the corporate publishers that generate huge profits from the sale of academic journals. Elsevier also sell journals as bundles to academic libraries, thus compelling libraries to purchase journals that they would not otherwise want to acquire. See Dobbs (2013).

Bundling has far-reaching consequences for business frameworks and profit-generation. It is often associated with near-monopoly status in retail sales – the rise of webapps such as Gumroad (<https://gumroad.com>) that enable direct marketing of a whole range of products, and via social media platforms such as Twitter, is in part a response by retailers and individuals to the presence and practices of huge online retailers such as Amazon, and an attempt to retain business control of product and market presence.

[3] And there is of course the rhetoric of austerity that is used to further the agendas of marketisation, privatisation and private political agendas. See chapter nine of the LETR Literature Review (LETR 2013); and for an example of this in the USA, see the long-running debates and protests regarding layoffs at the University of Southern Maine (Lazare 2014).

[4] According to some researchers academic labour trends are now following not just the wage structures of the private sector of the economy, but drug gangs – see Alfonso (2013).

[5] AQF: <http://www.aqf.edu.au>; TEQSA: <http://www.aqf.edu.au>; TLOs: [http://www.cald.asn.au/assets/lists/ALSSC%20Resources/JD%20TLOs%20\(March%202012\)%20Andrew%20Kenyon.pdf](http://www.cald.asn.au/assets/lists/ALSSC%20Resources/JD%20TLOs%20(March%202012)%20Andrew%20Kenyon.pdf); NCS: <http://www1.lawcouncil.asn.au/LACC/images/pdfs/LACCCompetencyStandardsforEntryLevelLawyers-Jan2015.pdf>; CALD Standards: <http://www.cald.asn.au/docs/CALD%20-%20standards%20project%20-%20final%20-%20adopted%2017%20November%202009.pdf>.

[6] My argument here parallels some of the macro-arguments about the shape of the social sciences in university. Christakis for instance (2013) has argued that the structure of disciplines needs to change in the social sciences if they are not to stifle ‘the creation of new and useful knowledge’. An article in the *Times Higher Education*, following up Christakis’ op-ed piece, broadly agreed with him, observed that ‘immovable department names are a worrying signal of immovability of thought’ (Goodall and Oswald 2014). In a similar move, students have been calling for an overhaul of the way that Economics is taught and learned, arguing against the ‘dominance of narrow free-market theories [...] harms the world’s ability to confront challenges such as financial stability and climate change’ (Inman 2014).

[7] LETR was instructed by the three ‘frontline’ regulators, the SRA, BSB and IPS, and was a review of legal services education in England and Wales. It lasted two years, and the extensive work generated in the course of writing the Review’s report is set out at <http://letr.org.uk>. The legal research interviewees were chosen because they were representatives of BIALL’s Legal Information Literacy Working Group, namely Ruth Bird, Peter Clinch and Natasha Choolhun. For further information on the work of the group see <http://www.biall.org.uk/pages/biall-legal-information-literacy-statement.html>

[8] The group were also critical of academic staff in this regard, too:  
Academics were also poor at attending training sessions. The group thought that it was time for a ‘wake up call’ on the whole issue of legal research.

[9] For an instance of LILT in practice, see Fishleigh (2013). With regard to the ‘googlisation’ of legal research it should be pointed out that, unlike Wikipedia, Google is designed to be a crowd-driven medium that contributes to the corporate profit of the organization. It is interesting to note that Google invested \$18.5M in Rocket Lawyer (<https://www.rocketlawyer.com/>), whose web-based services are a paradigm of disruption to conventional legal services, and a model of service that law schools have hitherto largely ignored. Networked and crowd-driven services lie at the heart of both. As we shall see below, networked learning creates significant affordances in the law school, in the way that learning takes place, the pace at which it forms and is re-enacted, in the critical role that collaboration plays, to more conventional forms of singleton-based learning (Dron and Anderson 2007).

[10] Subsequent page references in parentheses are to this book.

[11] Jenkins’ text has been used in other disciplines. In theology and missiology, for instance, Daniels employs Jenkins’ insights into the methods by which practitioners remix original texts: ‘they work to create authentic experiences, they produce what they want to consume, they share their collective intelligence in ways that are decentralized, and in doing so they embody an alternative social community’ (Daniels 2013, ii).

[12] And I would argue that such convergence also implies a fragmentation. The fracturing of traditional televisual monopolies with the rise of cable and satellite TV platforms and media is an obvious example, but one that contains within it multiple further fragmentations, where a network can be given over to a single person or theme. For comment on cord-cutting, see <http://361podcast.com/episodes/s07e02-cord-cutting-and-media-unbundling>.

[13] She continued: ‘“An’ the worst thing of a’, they’re nouter right spell’d nor right setten down”’.

[14] For an exploration of the laminated quality of this relationship, see Graham (2001), particularly his discussion of Yeats, and Yeats’ *Fairy and Folk Tales of the Irish Peasantry* (1888):

ambiguous control over the authenticity of [Yeats’] material reveals in its triple-level of authentication (tales, storytellers, folktales-collectors) that authenticity thrives on the textuality and substance of its medium. (Graham 2001, 144, his emphases)

[15] He points out, too, the convergence of media within devices – the multi-functionality of the smartphone, for instance, that contains within it phone, internet device, calculator, text messaging, voicemail, geo-locationary apps, GPS, maps amongst much else, and with the astonishing potential to share such functionalities between different apps.



[16] The extent of Pearson's entry into what I call the infrastructure of Higher Education (a move away from content such as books) can be seen on their corporate website, <http://www.pearson.com>, where under the tab 'Investors' is a report on the corporation's financial strategy, and in the right hand column, Pearson's current share prices listed on London and New York markets.

[17] As Jos Boys pointed out early in this process, 'the portal approach is taking hold precisely because *it enables institutions to avoid difficult questions about how they organise themselves*' (my emphasis, Boys (2002), quoted in Maharg and Muntjewerff (2002, 310–11).

[18] Compare this to the situation of the oral storyteller learning the craft in a particular place and time and community. In this comparison, as throughout this paper, it should be noted that I do not view tradition as fixed but as a dynamic process. Rather like fragmentation and convergence, tradition and innovation are forces that have complex and intertwining effects in society (Foley 1991).

[19] Their abstract is a typical example of the type of product being created:

This paper reports on a pioneering case study of a legislative process open to the direct online participation of the public. The empirical context of the study is a crowd-sourced off-road traffic law in Finland. On the basis of our analysis of the user content generated to date and a series of interviews with key participants, we argue that the process qualifies as a promising case of deliberation on a mass-scale. This case study will make an important contribution to the understanding of online methods for participatory and deliberative democracy. The preliminary findings indicate that there is deliberation in the crowdsourcing process, which occurs organically (to a certain degree) among the participants, despite the lack of incentives for it. Second, the findings strongly indicate that there is a strong educative element in crowd-sourced lawmaking process, as the participants share information and learn from each other. The peer-learning aspect could be made even stronger through the addition of design elements in the process and on the crowdsourcing software.

[20] The last example, a study of technology-supported remote participation in court proceedings, analyses why current technological practices do not ensure the benefits of technology are being realized. The authors point to the following factors, amongst others:

1. legislation guiding court use of the technology
2. built environment of both courtroom and remote location
3. court processes, rituals and protocols
4. training regimes for court staff, lawyers and judicial officers
5. design and configuration of the video link technology.

Most of these issues concern the culture, conventional spaces and protocols of court practice, and bear out Gitelman's point about the second layer of media.

[21] See Downes (2014).

[22] In Europe, for example, there are examples of collaborations such as EuroTech (<http://www.eurotech-universities.org/home.html>), generally high-level institutional collaborations, which may promote the ground-up co-operation that is vital for curriculum development.

[23] And note that the design work itself became an extended form of legal hackathon.

[24] The latest edition of the advice document can be found at Department of Business Innovation & Skills (2013).

[25] Scott also cites Parker's definition of meta-regulation, 'the regulation of self-regulation' (Parker 2002).

[26] Note the parallels between this and the call for a re-organisation of the social sciences, described at note 6 above.

[27] The examples are as follows:

1. Candy Chang: Street Vendor project: <http://candychang.com/street-vendor-guide/>
2. Margaret Hagan: OpenLawLab: <http://www.openlawlab.com>
3. Susanne Hoogwater: contract drafting visuals: <http://www.legalvisuals.nl>
4. Gary Sieling: Visualizing Citations in US Law, -- <http://garysieling.com/blog/visualizing-citations-in-u-s-law>, (where the thickness of the links between Titles encodes the frequency of citations between the sections, including self-citations).
5. Uber Rides by Neighbourhood at <http://bost.ocks.org/mike/uberdata/>. The software uses HTML, SVG and CSS. Full source and tests available at GitHub. See d3js.org.
6. The Access to Justice & Technology project at Chicago-Kent College of Law – <http://www.kentlaw.iit.edu/institutes-centers/center-for-access-to-justice-and-technology>. The goal of the project is to begin to establish cyber clinics as a permanent feature in US law school education.
7. Visualizations of the German Civil Code: <http://www.visualizing.org/visualizations/arc-law>

Aaron Kirschenfeld's post: The Law School Crisis, Visualized: <http://www.aaronkirschenfeld.com/scholarship/law-viz/> The author gives a useful introduction to this interactive infographic:

For the past year, I have been researching changes in the legal profession and the market it has created, but I have had trouble sorting out the story buried in the often cited numbers contained in scam blog posts, academic works, or news reports. On this site, I have gathered a wide variety of source material and data to tell a story and to present a challenge — if you are considering going to law school, will deciding to go really ruin your life? To that end, I've prepared several easy-to-grasp visualizations about law school applications, debt, employment after graduation, and the current crisis in the legal market. [...]

[28] There is more on future trends in digital technologies in the Future of Law course taught by Sarah Glassmeyer of CALI. See her blog posting on CALI Spotlight entitled 'Don't hide from the future – teach it!' Available at <http://bit.ly/1yz1hw3>.