

Do Lawyers Need to Learn to Code?

A Practitioner Perspective on the 'Polytechnic' Future of Legal Education

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The lawyer of the future will exist as a 'polytechnic' or 'many-skilled' professional, applying their legal expertise to a client's changing world in an increasingly agile way and within a range of organisational settings. For legal educators, there is a need to consider how education can best prepare future lawyers for this reality. The long view suggests that we should be looking to build core skills in legal, design and logic principles rather than learning specific technologies that may be rapidly superseded. But how can we develop these skills, and how we can balance the need to understand core academic principles of law against the need for applied, workplace experience? This chapter looks at the balancing process, focusing on the impact of changing roles in law firms and the demands of the in-house legal and law-advisory-organisation dynamic. It examines how legal education can instil within lawyers, both an understanding of the principles of law alongside an appreciation of the application of those principles in the workplace. It presents a vision of the roles and specialisations that are likely to emerge within the profession, and considers how the future work of lawyers will sit alongside alternative paths into the legal industry.

1.1 INTRODUCTION

As the legal sector is increasingly impacted by disruption and change caused by deregulation, new legal service providers and clients demanding 'more for less', there has been growing debate regarding the nature of the 'lawyer of the future', and the educational inputs which will best support those forging their careers in the legal sector.² This debate forms the focus of our chapter and centres around two key

¹ The authors would like to express their sincere thanks to the editor and to those who gave comments on earlier drafts of this chapter (in particular Lucy Dillon, Reed Smith LLP), together with the anonymous reviewers. Responsibility for the opinions expressed in the chapter remains with the authors.

² Many of the issues are well set out by Susskind in Richard Susskind, *Tomorrow's Lawyers: An Introduction to Your Future* (1st edn, Oxford University Press 2013) 109–65; Richard Susskind and

themes: first, the skills and knowledge that professional practice will demand from lawyers within the next ten years; and second, the form of educational and professional experience that best facilitates the acquisition of these skills and this knowledge.

As our chapter title pre-emptly, one specific area of focus that has been the subject of continued professional interest is whether lawyers need to ‘learn to code’. In addressing these claims, our chapter seeks to challenge the educational focus currently being considered in response to the market changes shaping the profession. Technology is becoming a key enabler of greater service efficiency in the repertoire of legal solutions offered to clients, yet technology knowledge alone is insufficient. We argue that educators at all levels should focus more on developing the broader skill-sets of students through experiential learning in client-facing settings.

Our educational vision sees lawyers exposed to a range of learning opportunities through which they can acquire the breadth of skills clients will expect from legal professionals in the years to come. To support our proposed approach to legal education, in this chapter we consider recent developments in the legal services market, and detail how we foresee these developments impacting the roles and skill-sets of lawyers. We identify a number of lessons to be learnt from previous educational innovations and make suggestions for others that have yet to be explored, but which, we anticipate, will be important in the future.

The present analysis is based upon our extensive experience of creating graduate/entry level educational programmes and knowledge tools for solicitors in the United Kingdom (UK) market, both in international private practice law firms and for in-house legal teams. Throughout the chapter we detail a number of short case studies of learning programmes developed at global law firm Reed Smith LLP (‘Reed Smith’), including those which formed part of a future-focused innovation initiative resulting in the creation of an ‘Innovation Hub’ in the firm’s London office.³ Our aim in providing these real-world insights is to share what we have learnt as we have trialled various practical exercises, and also to reflect on which of these have been most effective in building the mindsets and skill-sets that will represent critical competencies for lawyers in the years to come.

Daniel Susskind, *The Future of the Professions: How Technology Will Transform the Work of Human Experts* (Oxford University Press 2015).

³ The work at Reed Smith referenced here began in 2011 when one of the present authors (Spencer) joined the firm (becoming Global Director of Learning & Development) and created new commercially focused graduate programmes with Lucy Crittenden (Graduate Recruitment Manager). From early 2015, a project to create an ‘Innovation Hub’ in the firm was led by Roger Parker (Managing Partner, EMEA), Spencer and Lucy Dillon (Chief Knowledge Officer). Subsequently the other present author (Smith) joined the firm as Innovation Hub Manager to lead the Hub’s work, with the ‘Hub’ opening officially in October 2016.

1.2 RECENT DEVELOPMENTS IN THE EDUCATION OF LAWYERS IN THE UK

Whilst it has often been asserted that legal education is resistant to change,⁴ over the last decade there have been a number of developments in the education of junior lawyers for the legal services market in the UK, specifically in the jurisdiction of England and Wales. Some of these developments have arisen as a result of the work of regulators, who over the course of the last few years have directed significant attention towards the current state and future direction of legal education. This attention has included a broad review of the training pathway for lawyers as part of the ‘Legal Education Training Review’ (LETR) commenced in 2011,⁵ and the ‘Training for Tomorrow’ report produced by the Solicitor’s Regulation Authority (SRA).⁶ These reviews have led to the SRA’s recent decision to enact wide-scale changes to legal education via the introduction of a Solicitors Qualifying Examination (SQE) as a precursor to qualification.⁷

However, many of the developments in education and training have been the product of other influences, coming at the request of the profession or as a result of educators pre-empting the needs of the profession. Economic recession, for example, has drastically re-shaped the client–firm relationship and prompted educators to address the long-standing criticism that legal education insulates students from the commercial realities of legal practice. Growing client demand for lawyers to graft more business knowledge onto their base of expertise in black-letter law, and the demand for enhanced commerciality has become a consistent theme in client feedback since the Global Financial Crises (GFC), and now forms a key factor in clients’ decisions as to which firms to select for mandates or panel appointments.

In an effort to address this need and differentiate their offering, some forward-thinking firms and private sector education providers have experimented with integrating greater opportunities for students to acquire commercial knowledge throughout the educational pathway of aspiring lawyers. BPP University,⁸ which

⁴ Susskind (n 2) and Susskind and Susskind (n 2).

⁵ Julian Webb and others, ‘Setting Standards: The Future of Legal Services Education and Training Regulation in England and Wales (Legal Education and Training Review)’ (SRA, BSB and CILEX 2013) www.lettr.org.uk/wp-content/uploads/LETR-Report.pdf accessed 17 August 2018.

⁶ Solicitors Regulation Authority, ‘Training for Tomorrow: A Competence Statement for Solicitors’ (Solicitors Regulation Authority 2014) www.sra.org.uk/sra/consultations/competence-statement.page accessed 8 November 2018.

⁷ The changes were originally planned for 2020, however this has now been delayed to 2021. Solicitors Regulation Authority, ‘SQE to be Introduced in Autumn 2021’ (Solicitors Regulation Authority, 8 November 2018) www.sra.org.uk/sra/news/press/sqe-launch-2021.page accessed 26 May 2019.

⁸ BPP provides courses for early career lawyers through its Law School, and was granted degree-awarding powers in 2007. It opened a Business School in 2008, and was granted the title of ‘university’ in 2013.

for many years has been a preferred supplier of the Legal Practice Course (LPC)⁹ for a number of firms, created a full-year Master of Business Administration (MBA) programme in 2009 for graduate lawyers, working with one of the current authors (Spencer) and the firm Simmons & Simmons.¹⁰ As part of this programme, students were given a range of new learning opportunities, including a Business Intelligence Project (BIP) module in which graduates applied their classroom business knowledge by leading a client project in the workplace.

These full-year, commercially focused educational courses later evolved into single-year combined programmes, as exemplified by the Masters of Arts/Legal Practice Course (MA/LPC) created by Reed Smith in conjunction with BPP. This latter programme integrated core MBA modules into the LPC, whilst retaining BIPs so as to expose students to the practical application of knowledge in client-facing settings.¹¹ Other innovative additions to the MA/LPC run by Reed Smith included reverse mentoring programmes whereby graduates were given the opportunity to bring knowledge from their MBA modules into group mentoring sessions at the firm, applying the business models they had learnt to the firm's clients, and discussing industry trends and strategies with more senior colleagues.¹² Reed Smith's MA/LPC programme went on to attract the attention of other law firms who subsequently enrolled their own legal trainees on a similar course at BPP.

Collaborative initiatives between the legal profession and providers of vocational study in law have coincided with industry efforts to facilitate new, more flexible

⁹ The Legal Practice Course is a compulsory stage of vocational training that aspiring solicitors must complete in England and Wales. It follows the academic stage of training (Bachelor of Laws (LLB) or Graduate Diploma in Law (GDL) study) but precedes the two years of compulsory vocational training that intending solicitors must complete. For further information about the training pathway for lawyers in the England and Wales and a discussion of changes to this pathway, see Chapter 12.

¹⁰ In 2009 Spencer held the position of global Head of Learning & Development at Simmons & Simmons and worked with Professor Chris Brady, Dean of the BPP Business School, to create a full-year MBA programme for graduate lawyers after completing their LPC. See Hilary Wilce, 'It's the UK's First MBA Delivered Entirely by a Private Organisation' *The Independent* (London, 1 October 2009) www.independent.co.uk/student/postgraduate/mbas-guide/hilary-wilce-its-the-uks-first-mba-delivered-entirely-by-a-private-organisation-1795527.html accessed 24 July 2018.

¹¹ Reed Smith created the shorter MA/LPC programme with BPP in 2012, see Peter Hardy, 'First for Reed Smith and BPP with September Launch of Unique Legal and Business Postgraduate Qualification: Bespoke MA (Legal Practice Course with Business)' (*Reed Smith*, 2 April 2012) www.reedsmith.com/en/news/2012/04/first-for-reed-smith-and-bpp-with-september-launch accessed 7 November 2018.

¹² Nigel Spencer and Jon Stokes, 'Coaching and Mentoring as a Key Leadership Development Tool Across Legal Generations' in R Normand-Hochman (ed.), *Mentoring and Coaching for Lawyers: Building Partnerships for Success* (Globe Business Publishing 2014). See also the summary of Reed Smith's reverse mentoring initiative in the national Peer Awards for Excellence 2013: The Peer Awards, 'The 2014 Peer Awards' *The Independent* (London, April 2014) 1 <http://thepeerawards.com/wp-content/uploads/2014/04/2014Indy.pdf> accessed 24 July 2018; Reed Smith, 'Reed Smith Learning & Development Team Take Home Two Awards in the National Peer Awards for Excellence' (*ReedSmith*, 7 November 2013) www.reedsmith.com/en/news/2013/11/reed-smith-learning-development-team-take-home-tw accessed 24 July 2018.

educational pathways for those seeking to enter the legal profession.¹³ In the recent past, the majority of those seeking positions as solicitors at major firms tended to pursue the traditional, degree-based route towards traineeship, from school to university and onto the LPC. Keen to offer more ‘learn as you earn’ routes to qualification, which did not depend on a university degree, education providers and employers in the legal sector became increasingly interested in the development of apprenticeship schemes. Legal services apprenticeships by the Chartered Institute of Legal Executives (CILEX) were introduced in 2013, followed by the approval of ‘Trailblazer Apprenticeships’ standards for the legal sector in 2015. These were developed by three regulators in partnership with a number of law firms and businesses with large in-house legal teams.¹⁴ With an increased focus within the profession on the need to attract future solicitors from broader/more diverse talent pools (including more diverse socio-economic pools), this development was timely given that, in parallel, the level of student debt for a first degree in England rose to approximately £50,000.¹⁵

In recent years, the need for a broader skill-set to secure graduate level jobs (including a diminishing number of training contracts), and closer collaboration with legal employers, were two factors which also led to innovation in universities, prompting renewed emphasis on experiential learning and the importance of applied skills. These factors impelled more innovative law departments to experiment with the structure of law degrees, methods of teaching and the availability of clinical experience at both the graduate and undergraduate levels. At the undergraduate level, a Bachelor of Law (LLB) degree with a year in industry (at Reed Smith) has been pioneered at Queen Mary University of London (QMUL). This new degree has enabled students to gain a full year of workplace experience after a thorough grounding of core legal principles in years one to two, representing, in effect, a ‘degree with apprenticeship’ combined.¹⁶ A second innovation at QMUL worthy of note has been the introduction of a skills-based degree module linked to

¹³ The training pathways in the UK legal sector lead to the three branches of legal professionals: Barrister, Solicitor and Chartered Legal Executive.

¹⁴ The Trailblazer apprenticeship standards were announced in 2015, and had been developed by three regulators: the Law Society, the Solicitors Regulation Authority and the Chartered Institute of Legal Executives (CILEx) working with an employer-led group, including Addleshaw Goddard, Barclays, Browne Jacobson, Burges Salmon, Clyde & Co, DAC Beachcroft, Dentons, DWF, Eversheds, Gateley PLC, Kennedys, Lewis Silkin, Mayer Brown, Olswang, Pannone LLP, The Royal Bank of Scotland, Simmons & Simmons, Stephenson Harwood, Thomas Eggar and Withers. See Lawcareers.net, ‘Trailblazer Legal Apprenticeship Standards Receive Government Approval’ (*Lawcareers.net*, 2015) www.lawcareers.net/Information/News/Trailblazer-legal-apprenticeship-standards-receive-government-approval-04092015 accessed 24 January 2018; Lynne Squires, ‘Take an Alternative Route into a Career in Law’ (*Apprenticeship News*) www.apprenticeshipsnews.co.uk/sectors/law/take-an-alternative-route-into-a-career-in-law accessed 24 July 2018.

¹⁵ With fees of £9,000 per year for an undergraduate degree in the UK, and living expenses of £7,000–£8,000 per year, the anticipated student debt from a three-year degree totals approximately £50,000.

¹⁶ Tim Moore, ‘Routes into Law: Queen Mary Teams up with Reed Smith on “Degree with Apprenticeship in Law”’ (*Legal Business*, 13 January 2015) www.legalbusiness.co.uk/blogs/routes-into-law-queen-mary-

periods students spend working in the award-winning Queen Mary Legal Advice Centre.¹⁷ As with the other examples, this innovation has at its core the application of legal knowledge to practice, and the module's assessment incorporates practical examination methods such as role-play exercises to test the students' skills in action.

Elsewhere, technology-led innovations have been designed to enable students to gain greater applied experience. Historically such endeavours have been used to simulate high-street legal practice, for example, Strathclyde University's simulated town of 'Ardcalloch', which allowed students to play the role of lawyers in virtual law firms.¹⁸ More recent initiatives, such as Exeter University's establishment of the 'virtual law firm' programme, have been directed at embedding commercial experience pervasively throughout the law degree.¹⁹ This initiative enables students to work in a simulated office environment during their studies (ranging from office work-pods to a virtual boardroom), overseeing their own firm, and considering issues such as how a law firm delivers its services and how different departments in firms can best collaborate to deliver value for clients.²⁰ As Dr Sue Prince, Director of Education explains:

Students study for all of their core modules as part of their 'virtual law firm', using these facilities, and each firm has a particular caseload to work through throughout the academic year (with cases on various aspects of subjects being studied in the first year). This encourages students to get a real sense of how law firms operate as well as developing teamwork, research, organisational and time management skills as part of the study of the law. The professional aspect of the pedagogical environment is enhanced through the input of each firm's own non-executive director: a mentor who is a solicitor from a local law firm. Each virtual law firm has to meet its mentor and prepare termly reports, which focus on setting objectives, organisation and timeliness.²¹

These technology-led innovations have also accompanied other initiatives in the UK, with Ulster University launching a Legal Innovation Centre in conjunction with the Law Firms Allen & Overy and Baker McKenzie, and a graduate programme

[teams-up-with-reed-smith-on-degree-with-apprenticeship-in-law/](#) accessed 28 July 2018. For the benefits of this workplace-focused degree, see the feedback from students published on the QMUL website: QMUL School of Law, 'Courses – M130 Law in Practice' www.qmul.ac.uk/law/undergraduate/courses/m130-law-in-practice/ accessed 2 November 2018.

¹⁷ See QMUL School of Law, 'Legal Advice Centre' www.lac.qmul.ac.uk/ accessed 2 November 2018.

¹⁸ Karen Barton and Patricia McKellar, 'Transactional Learning: Ardcalloch Sheriff Court Is Open for Business' (2007) 1 *Journal of Information, Law and Technology* Article 3 https://warwick.ac.uk/fac/soc/law/elj/jilt/2007_1/barton_mckellar/ accessed 24 July 2018.

¹⁹ Academic Development Team University of Exeter, 'Virtual Law Firms – ASPIRE Case Studies' (2013) <https://as.exeter.ac.uk/tqae/academicdevelopment/assessmentandfeedback/work-integratedassessmentthecollaborateproject/casestudies/law/#d.en.485823> accessed 24 July 2018.

²⁰ Nick Birbeck and Sue Prince, 'Collaborate Project Case Study: Virtual Law Firms' (University of Exeter 2013) [http://as.exeter.ac.uk/media/universityofexeter/academicsservices/educationenhancement/collaborate/VLF_Case_Study_\(2\).pdf](http://as.exeter.ac.uk/media/universityofexeter/academicsservices/educationenhancement/collaborate/VLF_Case_Study_(2).pdf) accessed 24 July 2018.

²¹ *Ibid.* 12.

in ‘Legal Technology & Innovation’ in 2017, while Edinburgh University has established a full Masters of Law (LLM) in ‘Innovation, Technology and the Law’.²² The growth of these initiatives designed to prepare students for the increasingly technological nature of practice reinforces the increased importance placed on cultivating a system of ‘work-ready’ graduates.

1.2.1 Learning from Past Experimentation in Legal Education

From our experience of creating and running a number of innovative in-house programmes over the past decade, we have arrived at two key observations. The first is the need to enable the application of learning and skill-building as early as possible to enhance workplace performance; the second is the need to have a core base of legal knowledge.

A core underlying principle of a number of experiments in legal education has been recognising the benefit of building in ‘outside the classroom’ experience right from the very start of a junior lawyer’s career. In respect of our first observation, we have seen practical learning significantly fast-forward the development of young lawyers either as part of a formal apprenticeship with interwoven periods of working and learning, or in programmes where future lawyers have workplace episodes and client-facing workplace experience as early as possible.²³

In particular, we have observed great benefits from ensuring that workplace episodes for early career lawyers have two features: a broad business focus, and the opportunity for clear leadership roles on client-facing projects. The broad business focus ensures that the junior lawyers frame their role as a true business adviser to clients rather than as a pure academic legal expert. The early opportunity to lead on client-facing projects means that they learn ‘by doing’ what it means to take responsibility for a project, building critical skills in a number of key areas, such as: asking good questions; listening to client needs; communicating effectively with senior stakeholders over a period of weeks; defining project scope; and producing a client-focused deliverable to meet tight deadlines.

Such early experiential episodes have largely not existed over the last three decades, yet feedback from early career lawyers exposed to such initiatives indicates their importance in building resilience and confidence in the application of

²² Ulster University, ‘Legal Innovation Centre – Home’ www.ulster.ac.uk/legalinnovation accessed 24 July 2018. The University of Edinburgh School of Law, ‘DPT: Innovation, Technology and the Law (LLM) (Full-Time) (PTLLMINFTLiF)’ www.drps.ed.ac.uk/17-18/dpt/ptllminftlif.htm accessed 9 January 2019.

²³ Over many years at Reed Smith, the performance of young lawyers who had such client-facing workplace experience was measured through self-assessment, feedback gained from a number of stakeholders and other performance metrics. Overall a faster ‘speed to capability’ was detected in the junior lawyers’ initial years in the firm, and greater levels of confidence also, in comparison to earlier years when such workplace opportunities had not been available. In addition, the growth of client demand for graduates to run even more projects in their workplaces indicated the performance level, and value delivered by the junior lawyers in these workplace episodes.

knowledge and skill, and enhancing the performance of participants as they transition from their educational environment to the world of work. This is revealed in feedback offered by a graduate on the Reed Smith ‘MA/LPC’ programme who was involved in a client-facing business strategy project and who reported that:

The [four-week client strategy] project was the best learning experience I can remember having taken part in, for several reasons. The project had to be excellent and, just as important, was a real-world task of genuine use to the client. Not only did this make the problem more engaging, it forced us to focus entirely on the client’s needs. We were forced to constantly think: ‘Is this relevant to the client’s specific problem?’ It was also useful in developing client relationship management skills. We kept in constant contact with the key stakeholders in the project, ensuring the scope and direction of the project was in line with their needs. We also had to manage differences and conflicts of opinion between individuals within the client. This taught us to ensure that everyone was heard (and perceiving themselves to have been heard) and his or her input valued.²⁴

However, as per our second observation, we also observe that practical experience does not displace the continued need for a core base of legal knowledge. As Susskind acknowledges, the ‘twist to the tale’ is that despite new roles emerging as the legal sector evolves (which we explore in more detail below in Section 1.3), it remains important to qualify as a lawyer and have a strong base of legal black-letter law expertise.²⁵ This has been borne out of our own experiences and observations regarding the critical success factors associated with the wide range of innovative programmes we have created over the last decade. To succeed in these early workplace opportunities, young solicitors needed to possess core legal knowledge, which they then apply. We anticipate that this knowledge base will remain the foundation for educational pathways into the legal sector for the vast majority and therefore continues to represent a key area of learning.

1.3 EMERGING PROFESSIONAL ROLES AND DRIVERS OF CHANGE

In order to look forwards, to consider the skill-set and mindset which will be critical for the ‘lawyer of the future’, we must necessarily consider the market context shaping the profession. What are the current pressures and drivers for change, and what will clients demand of future lawyers? These demands will influence the organisations in which lawyers will work, their roles, the skill-set they will need to

²⁴ Oral feedback from student on the Reed Smith 2012–13 MA/LPC collected during a structured review of the programme to assess the learning benefits for students at the conclusion of the academic year. Students were asked to comment on both classroom and workplace elements of the course in feedback to the Learning & Development team to enable ongoing adjustments and improvements to be made to the new course.

²⁵ Susskind (n 2) 118–20.

acquire and, ultimately, the educational models, which will be needed to support their career pathways.

The market context can largely be distilled to a single theme: buyers of legal services are increasingly expressing varying degrees of dissatisfaction with the way legal services have traditionally been delivered. This has been characterised by increasing cost pressures, a need to minimise legal fees and to demand ‘more for less’ from external law firms. In response, law firms, law firm subsidiaries and alternative service providers are all experimenting, tweaking, changing or ‘reinventing’ the model for the legal profession in a way that maintains profit margins whilst also retaining clients.

For some firms this has involved introducing new non-partnership tiers into the organisational structure, outsourcing lower value and time-consuming tasks, shifting away from the hourly billing model, and embracing the efficiency gains found in technology adoption. Yet some gains are easier to achieve than others. It is no coincidence that the best capitalisation of legal technology has been in areas that have structured data and standardised data collection mechanisms. Activities such as corporate merger and acquisitions remain ‘messy’ from a data perspective, and common corporate law tasks, such as due diligence review, remain a manual and laborious process.

In the face of this ongoing pursuit of cost and process productivity, lawyers have had to adapt, seeking efficiencies in work, pursuing opportunities for automation and finding improved ways to serve their businesses and clients. This adaptation has included tentative steps to acquire a better understanding of change in the industries they service, and developing a toolkit of skills that will serve them well in the future.

These twin drivers of transformation and efficiency (which are at times conflicting and at times complementary) provide the context for our consideration of the legal roles likely to shape future practice. Drawing on our in-house experience and taking into account the continuing market, regulatory and client-driven changes since 2013, we highlight six potential roles, which we foresee emerging in the near future, and these role descriptions update and build upon some of the typologies previously described by Susskind.²⁶

As a preface to this analysis, we have two preliminary observations. First, many recent initiatives have focused on the need for future lawyers to be able to code – hence the title of our chapter. Indeed authors such as Susskind have stressed the centrality of technology to many of the legal roles emerging in the future. However, it is important to consider technology as an enabler for people, business models and processes, not the driver of them. Technology adoption varies across organisations, is uneven in its distribution and is received with varying degrees of positivity by clients. Whilst it can produce greater efficiencies, technology can also exacerbate inefficiency by increasing service fragmentation.

²⁶ Ibid 109–20.

Second, given the differing market drivers and service requirements which each firm faces, we feel that it is important to always keep in mind the external world of the client, and their needs, in order to define what we believe will occupy the time of lawyers in the future legal services marketplace.

Keeping these two points in mind, below we outline six professional role constructs as follows: (a) the advisory role; (b) the transformation role; (c) the collaborative role; (d) the constant improver role; (e) the data-driven role; and (f) the preventative or predictive role. From this position we then work backwards to elucidate the skill-sets required to undertake these roles, and give our view on the educational implications that these skill-sets generate.

1.3.1 *The Advisory Role*

The ever-increasing complexity of the business and regulatory environment means that a senior partner's role as 'trusted advisor' to their key clients will remain in significant demand.²⁷ In fact, this role is only likely to grow as businesses, governments and other bodies increasingly adopt digitised processes, oversight mechanisms and methods of data collection/storage. The transformation of industry, working practices and the development of new types of goods and services will bring businesses face to face with a range of complex issues and associated consequences with regard to revenue-creation, share performance, business growth, regulatory compliance and public trust.

This is demonstrated by the 'fail fast and fail often'²⁸ approach exhibited within Silicon Valley, with digital corporate monoliths disrupting industries and generating complex legal issues as a result of corporate behaviour (and in some cases misbehaviour) and the implementation of new business models. This transformation of business begets increased regulation (with more to come) introduced by governments seeking to protect employee rights, promote ethical corporate behaviour and ensure corporate compliance with taxation schemes. In addition, as the Cambridge Analytica scandal demonstrates, problems with data protection and data misuse can cross international borders, bringing into play a range of jurisdictional issues.²⁹ Add to all these issues the impact of expected large-scale automation and we can see that there will be no shortage of work ahead for the right lawyers.

²⁷ For the definition of the 'trusted advisor' role, where consultants and advisors are seen as a highly valued source of trusted advice for their clients' most difficult challenges, see David H Maister, Charles H Green and Robert M Galford, *The Trusted Advisor* (Simon & Schuster 2000).

²⁸ See, e.g., Rory Carroll, 'Silicon Valley's Culture of Failure . . . and "The Walking Dead" It Leaves Behind' *The Guardian* (London, 28 June 2014) www.theguardian.com/technology/2014/jun/28/silicon-valley-startup-failure-culture-success-myth accessed 5 October 2018.

²⁹ Allegations relating to the actions of Cambridge Analytica and its impact on the outcomes of the UK's Brexit vote and the US presidential elections have been widely reported. For example, see Mark Scott, 'Cambridge Analytica Helped "Cheat" Brexit Vote and US Election, Claims Whistle-Blower' *Politico* (27 March 2018) www.politico.eu/article/cambridge-analytica-chris-wylie-brexit-trump-britain-data-protection-privacy-facebook/ accessed 8 November 2018.

This situation does not mean the legal industry should sit back and expect work to roll in. To acquire status as the ‘trusted advisor’ of new or transformative businesses, senior lawyers need to empathise with the emerging new leadership of organisations, the cadence of a workforce moving to an agile and iterative way of working, and to understand the role of data in advising on corporate risk, market risk and change.

The required skill-set for these needs will remain broad. The advisor will need to be an expert in areas such as technical architecture, user analytics, data protection, employment rights in the ‘gig economy’ and digitised risk in new systems. However, there will be an increased emphasis on how these advisors work with clients. Whilst maintaining a specific area of expertise, there will be an even greater need for lawyers to listen and ask insightful questions to understand the complexities of their clients’ rapidly evolving worlds. The value of this expertise will lie in a lawyer’s ability to tailor knowledge to a client’s unique situation, as opposed to merely transmitting their knowledge.

These advisors will also be expected to be creative and persuasive, and capable of collaboration so that they can find solutions with other creative business and technology colleagues. Advice and value in the eyes of clients will look less like a memo, and will instead be orientated around facilitating thinking, for example, leading regular creative sessions in ‘stand-up’ meetings with the product and technology teams of their clients. As the role of trusted advisor changes so too will workplace expectations – future lawyers may even need to swap their suits for jeans and t-shirts!

1.3.2 The Transformation Role

In a rapidly transforming business environment, we will see the rise of the ‘transformation lawyers’ who specialise in advising their clients on long-term strategies to support decade-long projects. These projects will focus on the need to digitise or re-platform a client’s operations in preparation for the increasingly data and technology driven future that is emerging. Such projects are well underway in financial services. However, we should expect to see transformation in other areas, including government work, transportation, shipping and infrastructure.

These projects involve vision, as well as long-term changes in leadership, corporate structure, workforce, revenue lines, financial and tax reporting. They also generate tension for regulators, especially in the realm of data and new technologies like artificial intelligence (AI). For some businesses and industries, the scope of legal work undertaken to facilitate transformation may be huge: from redefining the contractual core of the business to reflect new structures and commercial approaches, to supporting the transformation of a workforce’s terms and conditions, to attracting and developing the right talent.

Lawyers in a transformative role will be strategic, long-term thinkers who understand the pace of change and appreciate the range of forces capable of disrupting

industry. Expected to span multiple years, this large-scale work will demand specific skill-sets from legal advisors. The ability to ‘think big’, project manage and contextualise legal advice with reference to the human factors of making and embedding change, will all be critical. Transformation lawyers will also work closely with a client’s leadership, innovation and change management structures, necessitating an understanding of the range of features (personal, economic, organisational, political, legal and historical) that shape these structures.

1.3.3 *The ‘Blurred Lines’ Collaborative Role*

As in-house legal teams work closer with their law firms to find efficiency, the shared understanding produced through these interactions gives rise to scope for collaboration. The increase in use of alternative fee arrangements, collaboration platforms and automation are leading to an increased need to ‘process map’ so as to understand the tasks, roles and hand-offs that are breaking down the traditional approach to instructing external counsel. In response, industry (legal and general) is slowly introducing a professional project management approach. However there is growing emphasis being placed on a collaborative approach where ‘teams’ of external (firm-based) and in-house (client-side) lawyers coordinate to undertake clear tasks and actions that are managed within a project and facilitated by a collaborative digital framework.

This places an increased onus on team participation, requiring lawyers to remain open and transparent in how work is carried out, sharing responsibility for the completion of that work and having clarity with regard to expectations. Whilst this may represent a change from the widespread view of lawyering as an individual ‘sport’, greater collaboration will yield benefits in terms of fostering closer working relationships with colleagues and clients, and promoting a mutual understanding of how to continuously improve the way in which work is completed. This way of working will increasingly blur the lines between external and in-house legal counsel, and will be accelerated by ongoing use of secondments in the industry (from firms to clients, and vice versa) and by the rise of ‘New Law’ efficiency providers. Lawyers will need to exhibit a mindset conducive to working in a multi-disciplinary project-managed team, and the requisite desire for teamwork and cooperation that underpins this style of working.

1.3.4 *The ‘Constant Improver’ Role*

Evolutionary change will be key to delivering ongoing enhancements to client services, and empowering lawyers to look for incremental efficiency gains instead of the next ‘big thing’ will be critical in driving innovation forward. These lawyers, legal engineers or ‘T-shaped’ lawyers (those with a technical legal skills-base, but who then broaden out their skills), will be key in facilitating the organic evolution of legal services, bringing knowledge of a range of technologies, working practices and

new approaches, deemed necessary to sustain improvement. An ability to understand processes, to exhibit a hands-on appreciation of the balance between people, process, data and technology, and the ability to measure the benefits of change, will be central to this role.

The industry has to take what may be considered ‘innovative’ today, and embed it within their organisation so as to make it the ‘new normal’. Lawyers who embrace incremental change and look for small gains in the way in which legal work is performed will be needed in order to sustain day-to-day innovation and improvement. We anticipate that the ‘Constant Improver’ role is likely to take the form of an associate working with a junior in-house lawyer to build mutual insights. Skills required for this role may be taught or fostered during legal education, though it is expected that skills like project management, process mapping, service design and a hands-on ability to work core legal technology, will all become integral to an individual’s on-boarding into a law firm.

1.3.5 *The ‘Data-Driven’ Role*

Client projects requiring detailed review work, ranging from mergers and acquisitions, due diligence, to regulatory reviews, or e-disclosure, are becoming exponentially larger due to the increased volume of electronic data available. From documents to messenger feeds, databases to electronic systems, there is so much data to cover in legal work that technology is necessary. This shift has been evidenced in litigation e-disclosure for a decade and will inevitably spread to other parts of law.

For lawyers, the ability to understand the way various technological systems work, what data they hold and to devise techniques to discover important information, patterns and connections in that data, will be differentiating skills. Great lawyers in the future will master these areas, leading to new business opportunities. For example, these skills will enable them to turn a one-off review into an entire deal life cycle, or to turn requests for one-off regulatory advice into a compliance programme driven by data.

Data-driven decision-making will become the norm, necessitating that over the next decade attention is paid to ‘cleaning up’ and organising data in a way that facilitates the application of AI technologies. In the longer term, this will lead to the emergence of new and more efficient processes, driven by digital legal assets such as smart contracts, contract life cycle management, and data on the efficacy of litigation strategy.

1.3.6 *The Preventative or Predictive Lawyer*

The rise of the data-driven role (Section 1.3.5 above) will put information into the hands of curious investigators, and forensic analysts, many of who may also act as the

lawyers of the future. These lawyers will have more avenues to explore opportunity, risk and strategy and to design ways to creatively solve a client's business problems. Increasingly, these business problems are digital in nature. Evidence of this is seen in data-driven scandals like Cambridge Analytica and recent election interference issues emerging in the USA and the UK, such that investigative journalists have abandoned the traditional aphorism 'follow the money' in favour of following the data.³⁰

We are seeing this trend internally in law firms and 'New Law' business models with litigation, investigatory and now even transactional issues involving data hunts into social media feeds, instant messaging data, databases and business systems, as well as email and documents. Clients and businesses are also using e-disclosure technologies in-house, so as to limit the need for and the cost of purchasing external legal services.

As firms and clients start to share and blend datasets to provide a holistic view of legal and business processes, there will be increased opportunity for preventative lawyering to take hold. This will allow for lawyers to spot trends in data that indicate a legal risk and act to mitigate that risk in advance. These trends might signal widespread regulatory issues or may merely enable lawyers to proactively monitor compliance in line with corporate policy so as to spot mistakes early on.

The preventative lawyer will be a data-enabled 'Trusted Business Advisor'. They will be connected to the problem and have the data to hand to make decisions that affect business outcomes, including the ability to proactively avoid disputes. In other words, this role will facilitate the proactive use of law and the positive use of the governance frameworks that the law provides.

1.3.7 The Overall Skill-Set of the 'Lawyer of the Future'

As is clear from our emerging lawyer personas presented above, our analysis does not foresee a 'coding lawyer'. Instead we believe that future roles will build upon the foundations of the 'trusted advisor' role, with lawyers demonstrating a number of broad capabilities. These include:

- Enhanced commercial awareness and client empathy brought about by an understanding of the transformative processes shaping a client's industry.
- The ability to use law more proactively with clients, taking opportunities to be creative and to facilitate innovation and transformation.
- A mindset that is agile in nature, shows interest in agile-development principles, and demonstrates an openness to learn and interact with ideas of 'service design' and 'design thinking' in the organisations they serve.
- High levels of collaboration, communication and facilitation skills.
- An understanding of data (and appropriate/inappropriate use), to become someone with whom business colleagues and a new generation of product managers will want to interact.

³⁰ Ibid.

- Greater diversity in problem-solving for which a prerequisite will be to recruit in broader talent pools, so as to attract individuals with different voices, backgrounds, learning styles and preferences.

1.4 DEVELOPING FUTURE SKILL-SETS THROUGH WORKPLACE PRACTICE

To develop these future capabilities, we believe that legal educators will need to work closely with employers, in a way that builds on and strengthens the initiatives developed over the last decade and discussed above. Many of the skills we have identified as being central to the future work of lawyers are developed particularly effectively through client-facing workplace experiences. In order to foster a learning environment capable of transferring these skills, the educational and working worlds of young lawyers must be blended further, giving students synchronous opportunities to develop specific skills, and apply knowledge in practice.

As a guide to what some of these blended ‘educational and workplace’ experiences could look like, we set out below three examples of experimental approaches we have tried in the workplace of Reed Smith and its clients.

1.4.1 Example One: Promoting an Earlier ‘World View’ Through Placements

One conclusion from the skills inherent in the future ‘personas’ outlined above (and those skills identified by students themselves – see Figure 1.1) is that the recent experiments to create learning programmes which incorporate client-facing learning experiences and build broad commercial skills should be continued and enhanced. A prerequisite for this approach is for firms to have the openness to allow junior lawyers to work in front of and with clients from an early stage.

We have previously explained the way in which Reed Smith pioneered such client-facing project experience, running commercially focused projects for its graduates. In addition, the firm then added a six-month trainee ‘seat’ experience either at a client or a pro-bono organisation, as well as pioneering the introduction of ‘Innovation Hours’ for associates.³¹ This gives associates time to create service innovations, working on a client’s problem within a service design framework (see Example Two below) and focusing on the client outcome.

The fundamental educational philosophy of this overall approach is twofold. It frontloads opportunities for aspiring lawyers to develop a skill-set including leadership and accountability, as well as contributing to the creation of a mindset which

³¹ In many private practice law firms solicitors are measured on a target number of ‘billable hours’ per year. The ‘Innovation Hours’ referenced here were units of time, which would count towards this target, but were time spent on innovation activities rather than chargeable client work.



FIGURE 1.1 Brainstorming the key characteristics for lawyers of the future during an Innovation Hub workshop with students

we believe is critical: working with a client to understand a problem, generate ideas and then co-design the solutions.

1.4.2 Example Two: Rethinking Legal Services Delivery with ‘Service Design’

‘Service design’ is currently the basis of change in many industries, including government digital services. Embracing this as a learning methodology has spear-headed the innovation strategy of Reed Smith, including the launch of the Innovation Hub, and hiring an Innovation Hub Manager with experience of product management and user-centric design.

The Hub regularly runs learning sessions where Reed Smith’s lawyers and business teams examine and empathise with a problem or process, prioritise the areas that can be changed or improved, and then work out solutions that can be implemented. This educational approach works well where all parties are in the room and engaged in the process, and where it is understood that time spent at this stage leads to better outcomes rather than simply reverting to familiar yet often ineffective ‘traditional’ methods of solving a legal issue.

Whilst service design has its origins in the software world, the approach has features which, we believe, can enhance a lawyer’s capabilities in communication and



FIGURE 1.2 Workshop outputs on 'persona development' for future lawyers at different career stages

iterative problem-solving (referenced also in Example One above), given that it encompasses a number of skills: spending time understanding the problem, empathising with the players in the problem, understanding processes, coming up with multiple ways to solve something (otherwise known as 'divergent solution solving') and prioritising areas to solve in collaboration with the beneficiary of a solution. An example of this approach is shown in Figure 1.2.

1.4.3 Example Three: Drawing on Science Technology Engineering and Mathematics (STEM) Learning Methodologies

A third client-orientated workplace learning experiment we have used has focused on differences in approaches to problem-solving and data analysis, and how these might lead to better client deliverables. Working with Legal

Cheek (a UK graduate/trainee online forum), in 2017 Reed Smith proactively participated in a programme to attract more Science, Technology, Engineering and Mathematics (STEM) students. The purpose was to explore how the approach of these students to legal problem-solving would align with the required 'future lawyer' skill-sets, as well as how it compared with the approach of traditional humanities students.

We selected the 'service design' learning methodology referenced above as the basis for an exercise in the Innovation Hub in the firm's London office. Students with STEM backgrounds were given a real legal task related to employment law contracts and were required to analyse data from a (hypothetical) client to present scenarios and options to the client. Interestingly, the STEM group used a logic-driven approach to create very visual data models, which powerfully enabled the client to explore the options in the advice.

We then repeated this exercise with a group of students from a purely humanities background and the results were very different. The analysis was much more 'legal', with students relying on approaches contingent upon legal argumentation and textual analysis of the contracts themselves.

From this experiment, we concluded that employers of future lawyers could benefit from broader talent recruitment approaches to bring in the 'data aware' skill-sets onto which legal expertise can then be grafted, and that legal educators could also usefully aim to develop elements of 'STEM mindsets' through their curricula.

1.5 CONCLUSION

Drawing on the analysis above and the benefits seen from our own trials of experiential learning, it is hard not to draw the conclusion that future commercial lawyers need to experience a tertiary education much more akin to an apprenticeship. The client-informed mindsets we have repeatedly emphasised throughout this chapter can only be facilitated if a rebalancing towards practical education occurs through early workplace experience. Early (paid) experience would also improve access to the profession in the face of increasing student debt, and this broader access will in turn facilitate the more diverse mindsets and skill-sets clients are increasingly coming to expect. This shift means that universities should reflect deeply on how they can contribute towards the development of young lawyers who are 'polytechnic' or 'many-skilled'.³² In particular, there is a need to focus on how an institution endeavours to produce 'many-skilled' graduates who exhibit creative thinking, recognise problems before they happen

³² The word 'polytechnic' deriving from the two Greek words 'poly' (πολύ, 'many') and 'technē' (τέχνη, 'skill').

and who are capable of designing systems, processes and solutions that are built to work and not to fail.

It is our view that lawyers will not grasp these opportunities by learning to code, but rather by developing their interpersonal skills, comprehending the emerging user-centric business world, engaging with their curiosity and creative problem-solving skills, listening carefully to their clients' needs and openly engaging with the changing world within which their clients operate and the leadership dynamic that governs that operation. Data and collaboration technology will support lawyers in these tasks, but in line with emerging trends that technology will be no/low-code in three to five years. In other words, lawyers of the future will interact with the technology, not write it. For this reason, the sooner aspiring lawyers are exposed to the realities of this interaction via experiential learning, the better prepared they will be to face the future of legal practice.

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