Technology and Innovation in Legal Services

Final Report for the Solicitors Regulation Authority

Mari Sako and Richard Parnham, with contributions from
John Armour, Ian Rodgers, and Matthias Qian, University of Oxford

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Executive Summary

Aims and objectives

1. This study was commissioned by the Solicitors Regulation Authority (SRA) to provide a 'state of the market' overview of the use of technology and innovation in the legal services sector from the perspective of legal services providers including law firms. The study has paid specific attention to areas where the SRA could make a difference, and draws implications for the wider legal services market. One of the SRA's 2020–23 strategic priorities is to 'actively support the adoption of legal technology and other innovation that helps to meet the needs of the public, business community, regulated entities and the economy', while maintaining high professional standards for solicitors and law firms. The research findings presented in this report are intended to feed into the SRA's consideration of how to implement this strategic priority.

2. The key objectives of the research, carried out by a team led by Professor Mari Sako at the University of Oxford, are:

- to provide up-to-date evidence on how legal technology and innovation are being implemented, and the resulting benefits and risks for the users of legal services

- to build a better understanding of unmet legal needs by highlighting perspectives of providers to help to address these needs

- to identify the size and shape of the legal technology and innovation ecosystem in the UK, so that the SRA can appropriately support innovative approaches to providing legal services.

The research team carried out an online survey of nearly 900 SRA-regulated firms, 50 interviews with various stakeholders, and analysis of databases (Burning Glass, Legal Technology Hub and Crunchbase). The Final Report consists of six chapters. Below is a chapter-by-chapter summary of key issues and findings.

3. Overall summary findings. When taken all together, our findings reveal that the past year has seen a step change in the adoption of legal technology and innovation in part as a result of COVID-19. Legal services providers see technology and innovation, as a way to improve the quality and efficiency of service delivery, and to satisfy unmet legal needs.

Barriers to legal technology and innovation, however, remain significant particularly for providers serving individual consumers and small businesses. These barriers take the form of lack of financial capital, lack of staff with appropriate expertise, and regulatory uncertainty. There is, therefore, a role for regulators and policy makers to promote innovation and legal technology adoption. Among the policy implications of our study are the need to enhance trust in the use of legal technology by various means, clarifying the coverage of technology risks in professional indemnity insurance, and facilitating regulatory compliance in data protection requirements.

Chapter 1 Introduction

4. This study investigates how legal technology and innovation are linked. We define legal technology as technologies that aims to support, supplement or replace traditional methods for delivering legal services, such as automating documents, chatbots, interactive websites, and artificial intelligence (AI)', in line with the definition used by the Law Society of England and Wales. We define innovation as significantly improving existing services or introducing new services (product innovation), making improvements to the delivery of services (delivery innovation), or making improvements to the marketing of services (marketing innovation). Some innovation, but not all, requires investment in new legal technology.

5. Market segmentation in legal services is important for identifying policy and regulatory issues. Two types of market segmentation are highlighted, although there are additional types of segmentation explored in the research. The first is a distinction between the individual and small business client sector (which we call PeopleLaw) and the corporate client-facing sector (which we call BigLaw). The second is a distinction between the regulated and the unregulated sector. The regulated legal sector is scoped out with reference to the Legal Services Act (LSA) 2007, though other considerations would further our understanding of the unregulated sector. This study addresses the following policy-relevant questions: how can technology adoption and innovation lower the cost of legal service delivery and access in the PeopleLaw sector? What regulatory principles and activities could promote innovation in the wider legal services market without causing detriment to consumers?

Chapter 2 Innovation and Legal Technology: Use, Drivers and Barriers

6. This chapter reports on the findings from an online survey of SRA-authorised firms to ask about innovation, the current and future uses of legal technology, and the drivers and barriers faced by innovators and adopters of legal technology. In total, 891 valid responses were received. We also shed light from 32 interviews, including with law firms and other legal service providers with a variety of size, ownership structure, and geographic location.

7. Changes in the last 12 months have been extensive, in part owing to the COVID-19 pandemic. In the last 12 months, over half (55%) of survey respondents improved or increased use of existing technology, just under half (48%) made changes in ways to deliver services, and a third (35%) introduced new technology. The impact of the COVID-19 pandemic on technology use has been extensive, with 51% of total respondents increasing the use of technology 'to manage or process work', 48% 'to interact with clients', and 26% 'to attract new clients'.

8. Innovation and technology adoption are related, but do not necessarily occur at the same time. Two-thirds (67%) of respondents introducing new services also introduced new technology, but the other one-third did not. Similarly, 65% of those with marketing innovation and 45% with delivery innovation also introduced new technology. Separately, two-thirds of respondents introducing new services 'improved or increased use of existing technology' but the rest did not. Thus, innovation tends to be associated with new technology adoption, but there are evidently other ways to develop new services that do not necessarily require novel technology. A good example of the latter is to offer integrated solutions for customers by combining legal and non-legal services.

9. Future plans for using legal technology, as compared to current use, is marked by interactivity with consumers. Of the total survey respondents (N=891), 37% said they are currently using legal technology, while 24% said they are 'not using but planning on using' it in the future. The top five most prevalent types of legal technologies currently in use are:

• 'videoconferencing with clients' (87% of total respondents)

• 'storing data in the cloud' (66%)

• 'practice management software' (62%)

• 'legal research software' (50%)

• 'e-verification/e-signature' (37%).

The technology types for which planned use exceeds current use are:

• 'online portals for matter status updates' (21% planning to use vs. 15% currently using)

• 'interactive websites to generate legal documents' (20% planning vs. 10% using)

• 'chatbots or virtual assistants' (14% planning vs. 6% using).

10. Legal technology is adopted in order to improve quality, efficiency, and flexibility.
The top five purposes of using legal technology are:

• 'improve service quality' (72% of total respondents)

• 'improve efficiency of workflows' (71%)

• 'allow staff to work more flexibly' (44%)

• 'reducing the overall cost of service delivery' (33%)

• 'increasing security and compliance' (22%).

Future users regarded 'increasing demand for our services' as a more important purpose than 'reducing the overall cost of service delivery' or 'increasing security and compliance'.

11. Barriers to adopting legal technology and barriers to innovation differ. For the adopters (those adopting or planning to adopt legal technology), the most significant barriers to adopting legal technology are:

• a 'lack of financial capital to invest in technology' (58% of adopter respondents)

• a 'lack of staff expertise to assess and implement technology' (50%)

• 'regulatory uncertainty or barrier' (45%).

For the non-adopters (those not adopting or planning to adopt legal technology), the most significant barrier is also 'lack of financial capital to invest in technology' (51%). The three top reasons for not innovating are:

• 'uncertainty about the expected business benefits' (36% of respondents not innovating)

• 'not a strategic priority' (31%)

• 'it isn't needed at my firm' (27%).

'Lack of staff expertise' (25%), 'possibility of unexpected legal or regulatory risk in the future' (20%), and 'current regulatory uncertainty or barriers' (20%) also contributed to not innovating.

12. Regulatory barriers or uncertainty apply to at least one in three non-adopter respondents. 44% of legal technology adopters and 35% of legal technology non-adopters cited regulatory barriers. The top three types of regulatory barriers are:

• 'client confidentiality and data protection requirements'

• 'professional indemnity insurance requirements'

• 'not knowing if wider regulations and legislation allows what we are considering'.

Among the actions that the SRA could take to support them in adopting legal technology, survey respondents cited greater clarity in guidance, help with regulatory compliance, non-regulatory support (including financial support), and various ways to enhance trust and confidence in using legal technology.

Chapter 3 Market Segmentation in the Legal Sector

13. In order to probe which market segments in legal services are most likely to innovate, this study uses two main types of market segmentation mentioned in Paragraph 4, between segments for PeopleLaw (with individual and small business clients) and BigLaw (with large corporate clients), and between the SRA-regulated and the non-SRA sectors.[1] The chapter draws on our survey findings, and original analysis of a large dataset by Burning Glass Technologies of nearly 900,000 online job postings in the UK during 2014–2020, and other data.

14. The total revenue has declined in the PeopleLaw sector relative to the BigLaw sector in England and Wales over the last two decades. According to the analysis of law firm turnover data by the Law Society of England and Wales, law firm activities can be classified into B2C (approximating to PeopleLaw) and B2B (corresponding to BigLaw) areas of law. Over time, the B2C share in total law firm revenue declined from around 50% in 1997–1998 to 20% in 2016–2017.

15. PeopleLaw firms in the SRA-regulated sector are less innovative, less likely to adopt legal technology, and face higher financial, staffing, and regulatory uncertainties or barriers to technology adoption than BigLaw firms. In the last 12 months, firms serving large businesses as clients are found in our survey to be more likely than those servicing individual or small business clients to have 'introduced new services', 'introduced new technology' and 'improved or increased use of existing technology'. Moreover, 'lack of financial capital to invest in technology', 'lack of staff expertise to assess and implement technology', and 'regulatory uncertainty and barrier' are more significant barriers to technology adoption for PeopleLaw firms than for BigLaw firms.

16. SRA-licensed alternative business structures (ABSs) are more innovative and more likely to adopt legal technology than firms which are not ABSs, consistent with prior research. The majority of the ABS firms are in PeopleLaw, and a small number of large ABSs serve BigLaw clients. In the online survey, ABSs (31% of ABS respondents) are more than twice as likely to have introduced new services than non-ABSs (13%) in the last 12 months; ABSs (53%) are also more likely to have introduced new technology than non-ABSs (33%). The majority of ABSs are in wills, probate and conveyancing, while there are a small number of BigLaw ABSs set up by large law firms and the Big Four audit firms.

17. The proportion of job postings requiring lawtech skills in the UK is very low, at 1–2% for jobs for lawyers (solicitors, barristers, judges), and somewhat higher – ranging from 5% to 15% during 2014–2020 – for legal sector jobs other than for lawyers, according to the Burning Glass data. Lawtech skills are defined broadly to include all digital technology skills, ranging from knowledge of software packages to command of computer programming languages. The proportions of jobs requiring lawtech skills are similar in the SRA-regulated sector and the non-SRA sector (as defined in Paragraph 13).

18. The SRA-regulated sector is growing at a slower pace compared to the non-SRA sector (as defined in Paragraph 13), judging from the number of job postings in the Burning Glass data. The SRA-regulated sector has around a third of the number of job postings every year compared to the non-SRA sector, implying fewer new job opportunities. This evidence, combined with the findings in Paragraph 16, implies that better access to lawtech skills in the non-SRA sector is due to faster employment growth in the latter.

19. Legal sector jobs requiring lawtech skills command higher salaries than equivalent jobs (with the same job titles) not requiring lawtech skills, according to the Burning Glass data. In the UK, solicitors are paid 13% more on average if they obtain jobs requiring lawtech skills. Paralegals are paid 25% more on average if they obtain jobs requiring lawtech skills. No such pay premiums exist for legal professionals (both licensed attorneys and paralegals) in the US. The US has had a similarly low proportion of job postings for licensed lawyers requiring lawtech skills, at 2–3%. But until the mid-2010s, US paralegals had a much higher proportion of job postings with lawtech skills.

20. Alternative business structures (ABSs) have labour market characteristics associated with innovativeness and technology adoption, according to the Burning Glass data. Compared to non-ABS firms, ABSs employ more non-lawyers relative to lawyers, have a greater proportion of non-lawyer job postings with lawtech skills, and pay a higher premium for lawtech skills for non-lawyers, but not for lawyers.

Chapter 4 Unmet Legal Needs and Risks: Providers' Perspectives

21. In this chapter, we explored three issues: whether use of technology and innovation might reduce unmet legal need (ULN); the barriers, regulatory or otherwise, that might hinder innovation and technology deployments; and the risk associated with technology deployments and innovations. The principal evidence base for this chapter was 37 interviews, mostly with SRA-regulated law firms that are regarded as being innovative. Our research paid particular attention to innovation in the PeopleLaw, rather than BigLaw, market so that we could focus on ULN issues.

22. In relation to ULN, a small number of legal practices are developing free, or low-cost, legal services, largely based on a self-serve model with 'freemium' pricing (ie free services with options to pay for additional services). We also observed law firms using online portals to manage client matters in order to reduce costs. Beyond firm-specific desires to innovate, arguably one of the more significant drivers of legal practice innovation in recent years appears to be the government's justice digitisation agenda – notably the whiplash claims portal launched in May 2021.

23. Concerns over the impact of innovation and technology usage on firms' professional indemnity cover was a noteworthy inhibiting factor among several of our law firm interviewees, consistent with the online survey findings. Interviewees suggested that the SRA and Law Society might play a useful role in educating professional indemnity insurance providers about the technologies now being deployed within the legal sector, with a view to encouraging greater risk awareness among those providers.

24. One surprising inhibitor of legal technology adoption originated with legal technology providers themselves. Several interviewees complained that existing vendors made it difficult for firms to roll out new solutions, because vendors failed to provide application programming interface (API) access or undertake the necessary development work that would allow different technologies to work together.

25. In some PeopleLaw areas of work, there was an absence of vendor provision for certain legal technology products, raising the cost of technology adoption. In such circumstances, law firms typically created their own solution from generic technologies. However, the absence of in-house expertise and resources required to develop such solutions served as a barrier to wider technology adoption in the PeopleLaw market.

26. Our interviewees displayed a propensity to accept risk when developing innovative solutions and services, notwithstanding limited developmental budgets in some cases. Particularly in the BigLaw space, firms were able to reduce the risks of developing legal software by using low-code/no-code solutions (ie creation of application software without knowledge of computer programming), or by combining existing legal technology offerings into new products and services.

27. Law firms undertook a variety of measures to reduce the risk of engaging lawtech companies that might fail. These measures included making company engagement conditional on an initial approval process, following procurement processes, and actively monitoring the startup company itself for signs of distress.

Chapter 5 Lawtech Ecosystems: Funding, Scaleup, and Policies

28. The lawtech startup ecosystem consists of young ventures, investors, and policy makers, linked via funding flows, personnel movement, and policy coordination. This study examines this phenomenon from three perspectives, namely from the perspectives of lawtech startups and their founders, investors – including venture capital and law firm accelerators – and policy makers and regulators. Throughout, we make comparisons of 104 lawtech startups in the UK identified using Crunchbase and Legal Technology Hub, with 256 lawtech startups in the US.

29. In the UK and US, the growth of lawtech startups accelerated until 2017, after which growth rate has declined. This decline in the annual number of newly established lawtech ventures may in part be induced by consolidation of the lawtech sector. According to the Crunchbase data, there have been 24 acquisitions of UK-based lawtech startups since 2012, compared to 77 acquisitions of US-based startups.

30. There are more BigLaw ventures than PeopleLaw ventures in both the UK and the US. Classifying the startup ventures by the main client base that they address, 45% of UK lawtech ventures were in PeopleLaw, compared to 36% of US lawtech ventures. BigLaw ventures tend to be located in large cities, while PeopleLaw ventures are more dispersed geographically.

31. The main source of funding for lawtech ventures is venture capital, with funding skewed towards BigLaw ventures. The total fund raised by lawtech startups in the UK is 853 million USD, compared to 5.98 billion USD in the US. This difference appears to be in part due to the availability of venture funding in Silicon Valley. It is also reflected in the average funding received per venture, 9 million USD in the UK compared to 28 million USD in the US. BigLaw ventures also received a giant share of funding, compared to PeopleLaw ventures which received only 3.2% of total funding. With 75 funding rounds (counting the number of times startups receive funding) in BigLaw and 23 funding rounds in PeopleLaw in the UK, therefore, PeopleLaw funding rounds are smaller in value.

32. Venture founding and funding are marked by a skewed gender composition. Only 18% of the UK lawtech ventures in both the UK and the US lawtech ventures have at least one female founder. In terms of funding, 19% of all funded lawtech ventures in the UK have at least one female founder get funding, compared to 15% in the US. Within the UK, female founders are also less likely to establish a venture in BigLaw: 8% of BigLaw startups and 63% of PeopleLaw startups have at least one female founder.

33. There are various strands of government support to specifically promote legal technology adoption and the growth of the lawtech sector. They include the Legal Access Challenge conducted by the SRA, funded by BEIS's Regulators' Pioneer Fund, and LawtechUK's sandbox pilot, funded by the Ministry of Justice. Going forward, the most obvious indication of future government support is the HM Treasury's pledge to develop a regulatory system for an innovative economy, including support for the development of regtech apps to cut red tape, as stated in Build Back Better.[2] This pledge could translate into tangible lawtech-related support programmes.

34. Attempts to facilitate access to proprietary and public data by lawtech companies have not yet scaled significantly. To date, the focus has been on 'data matchmaking' to encourage third parties to provide access to their data - a process assisted by the development of data access templates and checklists by Tech Nation. In the long-term, data sharing may see a step change if some form of 'open legal' initiative is implemented, allowing for legal data sharing on a more structured, self-service basis. There are some initiatives among various stakeholders to agree on data structure and to create platforms for privacy-preserving data access. The UKRI has a general interest in supporting broader inter, and intra, sector data access, which could include the legal sector.

Chapter 6 Implications for Policy and Regulation

35. This chapter draws evidence-based implications in three areas of policy and regulation:

- First, promoting innovation and legal technology use by taking account of multiple policy objectives
- Second, facilitating user trust and confidence in legal technology and data
- Third, promoting the human capital aspect of innovation and technology use via jobs, education, and training.

Some of the implications are directly relevant to the SRA; others require coordination across sectors and policy issues. In fact, our study findings point to the need for greater coordination.

36. Promoting innovation and technology use by taking account of multiple policy objectives. In the digital economy, the way products and services are offered cuts across the previously well-established boundaries of markets, jurisdictions, and regulation. Sector-specific regulators in legal services would benefit from more intense coordination with issue-based regulators (in data protection, etc) to monitor synergies and trade-offs between policy objectives, for example competition (to protect consumers) and data protection (to respect privacy). Further consideration might be given to promoting competition, not only via digital comparison sites, but also by setting standards to lower consumers' cost of searching for legal products and legal technology tools.

37. Facilitating user trust in technology tools and data. Our survey and interview evidence shows the need to build greater user trust in legal services and in legal technology. This issue might be addressed, as suggested by the CMA and the Mayson Report,[3] by creating a register of providers of unregulated legal services and legal technology. An alternative approach, which is more dynamic and responsive, is 'product governance', embedded in sandboxes. This approach requires product and service providers to implement a set of internal processes that govern the development, testing and marketing of products, which ensure that consumer benefits are realised. Consideration might be given to linking data governance to product governance. Also, lawtech sandboxes might consider focusing on systemic issues, such as access to public data, and inviting participants from both PeopleLaw and BigLaw to enhance sharing of best practice in innovation, technology adoption, and data use.

38. Lawtech jobs, education and training for the legal profession. The adoption of legal technology requires more staff who could assess and implement legal technology. But whether this technological expertise should be incorporated within the legal profession, among associated legal professionals, or else be provided by those with no legal training, is a moot point. We suggest two areas that require further consideration. First, the depth of digital literacy necessary, from basic statistics to data science, differs depending on whether lawyers are 'consumers' or 'producers' of technology-enabled services. Lawtech skills training is most likely to occur as part of continuous professional development. By contrast, entry-level career pathways would be influenced by different ways in which young lawyers come to acquire up-to-date lawtech skills during their training and work experience. Second, it would be useful to explore how to instil the same knowledge of the constitutional and ethical norms required to use AI and data for lawyers and non-lawyers working in the legal sector.

Introduction

1.1

Aims and objectives of the study

This study was commissioned by the Solicitors Regulation Authority (SRA) to provide a 'state of the market' overview of the use of technology and innovation in the legal services sector, paying specific attention to areas where the SRA could make a difference.

One of the SRA's 2020–23 strategic priorities is to 'actively support the adoption of legal technology and other innovation that helps to meet the needs of the public, business community, regulated entities and the economy', while maintaining high professional standards for solicitors and law firms. The research findings presented in this report are intended to feed into the SRA's consideration of how to implement this strategic priority.

Technology and innovation have already changed, and will continue to change, the face of the legal services sector in the UK. The key objectives of the research, carried out during December 2020 – May 2021 by a team led by Professor Mari Sako at the University of Oxford, are:

• To provide up-to-date evidence on how legal technology and innovation are being implemented, and the resulting benefits and risks for the users of legal services, with a view to drawing implications for SRA regulation.

• To build a better understanding of unmet legal needs, including of the most vulnerable, by highlighting perspectives of providers, to help to address these needs.

• To identify the size and shape of the legal technology and innovation ecosystem in the UK, so that the SRA, through SRA Innovate and collaboration with other stakeholders, can appropriately support innovative approaches to providing legal services, including via the adoption of new technology.

When commissioning this research, the Solicitors Regulation Authority raised the following questions that the research should address.

1. What types of technology are legal service providers using or planning to use? What innovations have they made?

2. What are drivers of, and barriers to, innovating and using technology?

3. Which areas (market segments, areas of law, geographic region) of the legal market are more likely to innovate and adopt legal technology?

4. How are innovation and lawtech ventures funded? Who is investing and from where is the funding derived?

5. How are technology and innovation affecting equality, diversity and inclusion for different types of providers and consumers with unmet legal needs?

6. What are the emergent risks – including regulatory risks – and unintended consequences resulting from the use of technology, particularly those that might need immediate regulatory attention?

7. What is the nature of interaction between firms' business models and the levels of innovation and use of technology?

We provide answers to these questions in Chapter 6 of this report.

This report presents the findings of an online survey in April 2021, with responses from 891 SRA-regulated firms, 50 interviews with a variety of stakeholders, and analysis of databases by Burning Glass Technologies, Crunchbase, and Legal Technology Hub. The timing of the study has been opportune, enabling us to elicit fresh responses about the impact of COVID-19 on technology use and innovation.

Defining legal technology and innovation

We launched our study in January 2021 with a keen awareness of the need to define what is meant by legal technology and innovation. Definitions are important to clarify and agree on the subject under discussion.

But they are sometimes assumed, not explicitly stated. Notably, the Clementi Review, which led to the enactment of the 2007 Legal Services Act, had as its terms of reference, 'to consider what regulatory framework would best promote competition, innovation and the public and consumer interest in an efficient, effective and independent legal sector.[1] But the report failed to clarify what was meant by innovation. Other times, clear definitions are offered, but innovation and legal technology are treated separately.[2] The two are obviously linked, but in what ways?

With respect to legal technology, we decided to adopt the definition offered by the Law Society of England and Wales. This decision was taken after a review of prior research (see Annex Report). The Law Society (2019) provides a definition of lawtech[3] as follows:

'Lawtech is the term we use to describe technologies that aim to support, supplement or replace traditional methods for delivering legal services, or that improve the way the justice system operates.

Lawtech covers a wide range of tools and processes, such as: document automation, advanced chatbots and practice management tools, predictive artificial intelligence, smart legal contracts, and knowledge management and research systems.'

For the purposes of our survey, we offered the following definition: 'legal technologies are technologies that aim to support, supplement or replace traditional methods for delivering legal services, such as automating documents, chatbots, interactive websites, and artificial intelligence (AI).'

With respect to innovation, we adopted the following definition after conducting a review of academic literature and sector-specific evidence (see Annex Report). We focused on three types of innovation: first, product innovation (which is about offering new services or significantly improved existing services), delivery innovation (which is about making improvements to the delivery of services), and marketing innovation (which is about making improvements to the marketing of services). Thus, in our online survey, we defined innovation as 'significantly improving existing services or introducing new services, or making improvements to the delivery or marketing of your services.'[4]

In subsequent chapters, starting with Chapter 2, we discuss findings on innovation and legal technology adoption sequentially and together, in order to investigate the link between the two. Evidently, innovation is not all about technology. And the adoption of legal technology is a means to an end. This study provides an up-to-date picture of the extent of innovation, current and planned use of legal technology, barriers to innovating and adopting legal technology, and the size and shape of the lawtech startup ecosystem in the UK.

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1 Sir David Clementi (2004) *Review of the Regulatory Framework for Legal Services in England and Wales: Final Report*.
2 Legal Services Board (2018) *Technology and Innovation in Legal Services*. November.
3 The terms 'lawtech' and 'legal technology' are used interchangeably in this study.
4 We excluded other types of innovation. In particular, what the LSB 2018 study calls 'strategic innovation' and 'organisational innovation' are part of changes in business models. But it is hard to elicit such ongoing changes using a one-time survey.

Market segmentation in the legal sector

I n order to be able to draw evidence-based implications for policy and regulation, this study also highlights the importance of segmenting legal services markets.

We discuss two main types of segmentation in this report. The first is by type of clients that legal service providers serve, contrasting the individual consumer and small business retail sector (the PeopleLaw sector) and the large corporate client-facing sector (the BigLaw sector).[5] Evidence exists of a sharp divergence between the two market segments with different business models and differential access to resources.[6]

Policy makers' concerns arguably also perpetuate this divide, as their objectives differ, promoting international competitiveness in corporate legal services and improving access to justice for citizens in consumer legal services. Might the gap be bridged if technology adoption lowers the cost of legal service delivery and increases access in the PeopleLaw sector? Are there policies and regulations that could promote spillover effects from one segment to another to the benefit of both segments? What role could the SRA play in affecting the convergence-divergence of these two market segments?

The second type of segmentation is by regulation. Here, market segmentation is between the regulated and unregulated sectors. In England and Wales, the legal services market is regulated by a multiplicity of frontline regulators based on the Legal Services Act 2007. However, unregulated providers of legal services and legal technology increasingly operate in the market or at the periphery of the market. They might implement more innovative approaches to legal service delivery, which may result in consumer benefits, but may at other times also cause consumer harm. A central question here is: how can regulators promote innovation across the whole legal services sector without causing detriment to consumers?

Other segmentation is explored throughout the report, including by size and age of law firms, the types of work they do, their geography and their business model. This study provides evidence of recent developments in different market segments, with a view to answering the above questions.

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5 Bill Henderson (2018) *Legal Services Landscape Report*, presented to Board of Trustees, The State Bar of California.
6 See John Armour and Mari Sako (2021) *Lawtech: Levelling the Playing Field?* SSRN working paper.

1.4

Structure of this report

This Report is structured as follows:

Chapter 2 presents evidence from an online survey and interviews to shed light on innovation and the current and future uses of legal technology, and drivers and barriers – including regulatory barriers – faced by innovators and adopters of legal technology.

Chapter 3 is about market segmentation, with an analysis of major differences between the PeopleLaw and BigLaw segments, and between the SRA–regulated and the unregulated sectors. The latter involves a labour market perspective, with evidence from a large database of digital job postings by Burning Glass Technologies.

Chapter 4 presents findings on the providers' perspectives on using innovation and technology to meet unmet legal needs, and on mitigating risks arising from using legal technology.

Chapter 5 turns to the analysis of the legal technology ecosystem, identifying the characteristics of startup founders, investors, and policy–makers.

Chapter 6 concludes with drawing implications for policy and regulation.

Each chapter is written in such a way that it can be read as a standalone piece.

The Final Report is informed by prior desk research to review existing theory and evidence, and contains analysis of original evidence we collected from an online survey, a series of interviews, and databases. Details of the research methods used – desk research, online survey, interviews, and database analysis, are in the Annex Report.

Innovation and Legal Technology: Use, Drivers and Barriers

2.1

This chapter provides up-to-date evidence on innovation and technology adoption from the online survey and interviews undertaken for this study.

Findings are presented thematically in the following order. First, we explore what changes have taken place in the last 12 months, not least to gauge the impact of the COVID-19 pandemic. We then describe the extent of innovation, and of current and planned use of legal technology, analysing how innovation and technology relate to each other. Second, we present findings on the drivers of, and barriers to, innovation and legal technology adoption. Third, we take a deep dive into one of the barriers, namely regulatory uncertainty, so as to provide concrete insights into where action could be taken by the Solicitors Regulation Authority. This last section also includes results from a survey experiment. We are interested in the overall sample-wide distribution of responses, but we also highlight significant variations by ownership type, firm size, firm age, geographic location, and client base.[1] Information concerning our methodology for the interviews and the survey is in the Appendix. For greater details, please refer to the [Annex Report](#).

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1 We report variations which are statistically significant at the 5% level, using chi-squared tests.

Patterns of innovation and legal technology adoption

2.1.1 Changes in the last 12 months

The survey asked what changes were made in the last 12 months, directing respondents' attention to changes in innovation and in the deployment of legal technology. We distinguished among three types of innovation, namely product innovation (introduction of new services), delivery innovation (changes in the way services are delivered), and marketing innovation (changes in the way services are marketed).

The three most prevalent changes in the last 12 months were 'improved or increased use of existing technology' (chosen by 56.2% of respondents), 'changes in ways to deliver services' (50.4%), followed by the 'introduction of new technology' (35.0%) (see Table 2.1). Ninety percent of the respondents with at least one of the changes said that all or most of these changes above were likely to be permanent. With respect to technology, improved or increased use of existing technology was more prevalent than the introduction of new technology. With respect to innovation, delivery innovation was more prevalent than marketing innovation, which in turn was more prevalent than product innovation.

Larger firms and firms serving large businesses as clients are found to be more likely to have 'introduced new services', 'introduced new technology' and 'improved or increased use of existing technology'.

Moreover, consistent with earlier surveys (notably Legal Services Board 2018), law firms that are authorised as alternative business structures (ABSs) (31.3%) are more than twice as likely to introduce new services than non-ABSs (12.6%); ABSs (52.5%) are also more likely to introduce new technology than non-ABSs (33.1%). With respect to firm age, younger firms (established within the last five years) are more likely to engage in all three forms of innovation (product, delivery, marketing), but are less likely to introduce new technology or improve existing technology. Lastly, none of the above changes varied significantly by geographic location of respondents.

This survey question also enables us to examine the relation between product innovation and technology adoption. In particular, two-thirds (67%) of respondents introducing new services also introduced new technology, but the other one-third did not. Similarly, 65% of respondents who implemented marketing innovation and 45% of those who implemented delivery innovation also introduced new technology. Separately, two-thirds of respondents introducing new services also 'improved or increased use of existing technology', but the rest did not. Thus, innovation (in product, delivery, or marketing) tends to be associated with new technology adoption, but there are evidently also ways to develop new services that do not necessarily require novel or new technology.[2]

Table 2.1: Changes in the last 12 months

Q10	What changes were made at your firm in the last 12 months?		
Tick all that apply (N=891)		N	Percent
Introduced one or more new service(s)		128	14.40%
Stopped providing one or more service(s)		98	11.00%
Changed the way we deliver some or all of our services		449	50.40%
Changed the way we market some or all of our services		172	19.30%
Introduced new technology		312	35.00%
Improved or increased use of our existing technology		501	56.20%
None of the above		158	17.70%

2 What constitutes 'new technology' in this question was left up to survey respondents to interpret. More likely than not, it includes technology that is new to the respondent firm, but not necessarily new to the sector or the wider economy. Moreover, it was intended to include all types of digital technology, not just legal technology.

The interaction between innovation and technology

Innovation is not just about technology. Some innovation is technology-led, others less so. Our interviews help highlight illustrative examples of innovation with varying degrees of reliance on legal technology (see Figure 2.1 below).

In product innovation, **legal project management** is a service that is not, fundamentally, based on technology; rather, it is a service mainly delivered by humans. **Bundling legal services with non-legal services** can combine online legal delivery and offline services, and is a novel service offering to consumers.

In delivery innovation, the use of **legal project management and process mapping** is an example of innovation that, in itself, does not require new technology. By contrast, a **freelance lawyer service supported by technology platform** is wired into the online platform. This service is innovative because it allows freelance lawyers to serve clients outside the traditional law firm structure. However, this offering also makes use of a technology platform to manage the delivery of this human-led legal service.

Online portals for clients to self-serve and track matters straddles product innovation and delivery innovation, and is dependent on the functionality of online portals with interactive elements. Online portals deliver services via self-service, and have a delivery mechanism that is novel because they largely replace lawyers' traditional way of interacting with clients, including in-person meetings, phone calls or emails.

In marketing innovation, **use of net promoter score** does not depend as much on digital technology, compared to participating in **online review websites** with a view to acquiring new clients. Using **sentiment analysis of client correspondence**, for example, to detect signs of unhappiness to determine an appropriate follow up, relies on artificial intelligence (AI) technology.

Figure 2.1: Interactions between technology and innovation in legal services

(Illustrative examples from our interview cohort)

Product innovation	Legal project management as a chargeable service	Bundling online legal services with offline non-legal services	Online portal for clients to self-serve and track matters
Delivery innovation	Use of legal project management and process mapping	Freelance lawyer service supported by technology platform	
Marketing innovation	Use of net promoter score	Participation in online review websites	Sentiment analysis of client correspondence

Innovation not based on new technology   **Technology-led innovation**

The relationship between technology and innovation is nuanced, as 81% of firms say that, generally, innovation does involve using or adopting new technology, either sometimes (45%), most of the time (32%), or always (4%). Only 2.5% said 'never'. However, the last 12 months have perhaps been a little unusual, given the likely COVID-19 pandemic impact on investing in new technology.

The impact of the COVID-19 pandemic on technology use has been extensive, with 51.1% of total respondents increasing the use of technology 'to manage or process work', 48.0% 'to interact with clients', and 26.0% 'to attract new clients' (see Table 2.2). Moreover, increased use of existing technology is two to three times more prevalent than the introduction of new technology.

Table 2.2: Impact of the pandemic on technology uses

Q12	Did the pandemic lead to you introducing, or increasing your use of, any of the following types of technology since March 2020?				
		Introduced use		**Increased use**	
Tick all that apply (N=891)		N	Percent	N	Percent
Technology to manage or process your work		140	15.7%	455	51.1%
Technology to interact with your clients		240	26.9%	428	48.0%
Technology to attract new clients		87	9.8%	232	26.0%

2.1.2 Innovation in legal services

The survey provided an explicit definition of innovation as 'significantly improving existing services or introducing new services, or making improvements to the delivery or marketing of your services'. Survey respondents were asked about their self-perception of innovativeness after reading this definition.

Responses varied somewhat by type of innovation. A greater proportion of respondents considered themselves innovative with respect to the delivery of services (74.6%) than with respect to the marketing of services (48.8%). This gap may be due to marketing innovation being perceived to be either tougher, or else less important in contrast to innovation in delivery which is core to lawyers' roles. Two-thirds (66.3%) of respondents considered themselves innovative with respect to new or improved services (see Table 2.3). Not surprisingly, the three types of innovation were highly correlated: over 60% of these respondents who considered themselves 'extremely innovative' with respect to product innovation also thought they were also 'extremely innovative' with respect to delivery innovation and marketing innovation.

Significant variations among respondents were as expected. Larger firms and ABSs (as compared to non-ABSs) considered themselves more innovative with respect to all three types of innovation. But other variations by firm age, location, and client type were not significant.

The survey also asked about a specific kind of product innovation, involving bundling legal and non-legal services as an integrated solution for clients. A minority (6%) said they implemented such innovation. Although the numbers are small, ABSs (20%) and firms with large corporate clients (22%) are more likely to offer such bundling of services. These solutions included services in both market segments, one serving individual consumers and small businesses (PeopleLaw) and the other serving large corporate clients (BigLaw). For firms with individuals as clients, respondents offer non-legal services ranging from property letting and property management to financial advice and funeral services. For firms with large business clients, respondents' list includes business advice, audit and tax advice, and risk advisory.

Table 2.3: Self-perception of innovativeness

Based on this definition, how innovative do you think your firm is, relating to the following areas?

Q13	New or improved services	N	Percent
Not at all innovative		67	7.5%
Not particularly innovative		234	26.3%
Somewhat innovative		423	47.5%
Very innovative		130	14.6%
Extremely innovative		37	4.2%
Totals		**891**	**100.1%**

66.3%
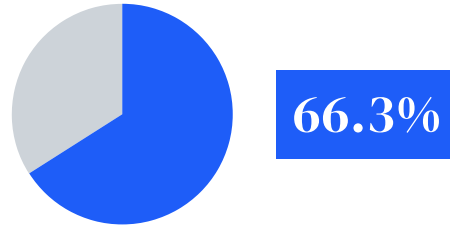
Somewhat, very, or extremely innovative

Q14	Delivery of services	N	Percent
Not at all innovative		35	3.9%
Not particularly innovative		191	21.4%
Somewhat innovative		447	50.2%
Very innovative		174	19.5%
Extremely innovative		44	4.9%
Totals		**891**	**99.9%**

74.6%
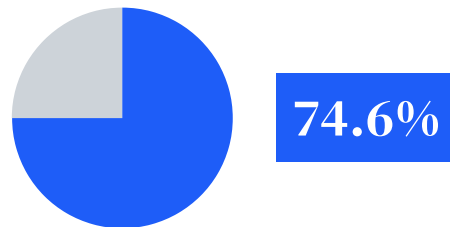
Somewhat, very, or extremely innovative

Q15	Marketing of services	N	Percent
Not at all innovative		170	19.1%
Not particularly innovative		286	32.1%
Somewhat innovative		298	33.4%
Very innovative		106	11.9%
Extremely innovative		31	3.5%
Totals		**891**	**100%**

48.8%
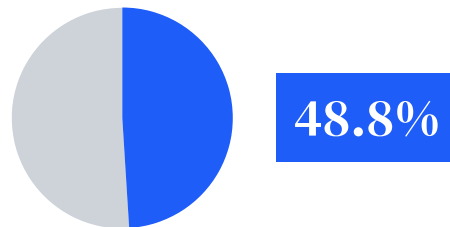
Somewhat, very, or extremely innovative

Note: the percentages do not necessarily add up to 100 due to rounding.

Bundling legal and other services

Our interviewees identified examples of SRA-regulated law firms, law companies, and lawtech companies that bundled legal and non-legal services together into a wider offering. The bundling could represent a clear client 'journey' over time; alternatively, the services bundled together could be offered in tandem with each other.

In PeopleLaw, an SRA-regulated law firm and an unregulated legal technology company had a similar bundling proposition along the same client journey: will-writing and probate in the legal space, and funeral services in the non-legal space. Both of these organisations had substantially automated the wills and probate elements of their business, and also use online technology to help their clients to make funeral arrangements. Much thought has gone into deciding what to automate and what not to, to preserve a personal touch.

'A lot of people still want human context, so we put in a lot of thought in terms of design to make [our service] look and feel personalised even though it's automated.' Founder, CEO, unregulated provider.

In BigLaw, bundled services offered broadly in parallel included tax and M&A advisory services. Among traditional legal practices, several offered non-legal services that were closely related to the delivery of legal services, such as legal project management. By contrast, some ABSs offered bundled services that extended further beyond their core law offering, such as risk advisory services.

2.1.3 Current and planned use of legal technology

In the survey, we offered an easily understood definition of legal technology, adapting a definition provided by the Law Society of England and Wales: 'By legal technology, we mean technologies that aim to support, supplement or replace traditional methods for delivering legal services, such as automating documents, chatbots, interactive websites, and artificial intelligence (AI).' Of the total respondents, 36.6% said they are currently using legal technology defined as such, while 23.8% said they are 'not using but planning on using' in the future (see Table 2.4). As expected, ABSs (55.6%) are more likely than non-ABSs (34.1%) to be 'currently using' legal technology. Also, larger firms and firms with big businesses as clients are significantly more likely to be currently using technology.

Probing into specific types of legal technology in use, the top five most prevalent types of legal technologies that respondent firms are currently using are 'videoconferencing with clients' (86.4%), 'storing data in the cloud' (65.9%), 'practice management software' (61.7%), 'legal research software' (50.4%), and 'e-verification/e-signature' (37.3%) – see the numbers in bold in Table 2.5.

Focusing on types of legal technology for future planned use, the top type is 'e-verification/ electronic signature' (25.4% planning to use), with its rapid diffusion most likely fuelled by remote working due to the COVID-19 lockdown and legislative changes.

Table 2.4: Use of legal technology

Q20	Based on this definition, does your firm use or plan to use legal technology?	N	Percent
Currently using		326	36.6%
Not using but planning on using		212	23.8%
Not using and not planning on using		292	32.8%
Don't know		61	6.8%
Totals		**891**	**100%**

Turning to the technology types for which planned use exceeds current use, 21.2% of respondents plan to use (vs. 15.4% currently using) 'online portals for matter status updates', 19.5% plan to use (vs. only 9.9% currently using) 'interactive websites to generate legal documents', and 14.0% plan to use (vs. only 6.2% currently using) 'chatbots or virtual assistants'. These are strong signs of an accelerated diffusion of more interactive uses of websites.

Table 2.5: Types of legal technology in use

Q23 — Which of the following legal technologies are you currently using, or planning to use, in your firm? N=891	Currently using N	Currently using Row %	Planning to use N	Planning to use Row %	Not planning to use N	Not planning to use Row %
Videoconferencing with clients	**770**	**86.4%**	48	5.4%	73	8.2%
Model documents/templates on our website	217	24.4%	**149**	**16.7%**	525	58.9%
Interactive website to generate legal documents in response to client input	88	9.9%	**173**	**19.4%**	630	70.7%
Chatbots or virtual assistants	55	6.2%	**125**	**14.0%**	711	79.8%
Online portals for matter status updates	137	15.4%	**189**	**21.2%**	565	63.4%
E-verification/electronic signatures	**332**	**37.3%**	**226**	**25.4%**	333	37.3%
Storing data in the cloud	**587**	**65.9%**	102	11.5%	202	22.6%
Practice management software	**550**	**61.7%**	87	9.8%	254	28.5%
Legal research software	**449**	**50.4%**	90	10.1%	352	39.5%
Contract review software	65	7.3%	120	13.5%	706	79.2%
Blockchain/distributed ledger	16	1.8%	74	8.3%	801	89.9%
Data analytics with AI	45	5.1%	92	10.3%	754	84.6%

Technology adoption during the pandemic

Firms we interviewed had quickly switched from offices to remote working, replacing face-to-face meetings with Teams and Zoom. This was straightforward for large law firms whose enterprise systems were in the cloud. E-signatures were also rapidly adopted, to maintain business as usual, accelerating digital transformation.

The pandemic produced an uptick of work in will writing and probate, and in the conveyancing market (owing to a combination of the stamp duty holiday and people needing additional space for remote home working). Remote working has also accelerated service automation and demand for employment law advice.

'[Our] employment law solution [is] designed for the remote working world, handles collective consultations, TUPE, redundancy consultations, and includes ways of electing representatives to ask questions and manage consultations.' Alternative Legal Service Provider

'[Our tool is] in addition to our furlough navigator, redundancy navigator and back to work navigator. We built the tools on the hoof in response to government policy decisions. Having a software company enabled all of this. They all follow on from one another.' Law Firm

The pandemic saw accelerated development of online self-service systems that integrated with government portals, giving people direct access to legal services.

'We built a new system that integrates with that government system and a new back-end that drives all this work through a workflow engine and allows us to run [personal injury] claims with a much lighter touch. It takes a lot of the admin out of our hands and puts it in the hands of the customer … the system prompts them when things are happening and invites them to log in, check things, upload documents etc so that the claim can proceed without us having to stage-manage all of the elements of the claim.' Law Firm

2.1.4 Legal technology adoption by areas of law

The survey investigated the rate of legal technology adoption by area of law. Each respondent was asked to state the three areas of legal practice which generated the largest revenue shares for their firm based on whether their clients were primarily individuals and/or small businesses – ie in PeopleLaw – or else large businesses – ie. in BigLaw.

In PeopleLaw, the top five areas of law (by absolute number of responses) among tech adopters (ie. respondents who currently use or are planning to use legal technology) are: conveyancing (residential) (130), wills, probate, and trusts (101), family, including children and matrimonial (97), company/commercial, including property and planning (78), and litigation and dispute resolution (77) – see the numbers in bold in Table 2.6a.

Proportionately, the rate of current adoption ranges from just over a half (53.3% of respondents) in family law to 71.4% of respondents in residential conveyancing. Given the low number of total responses, however, it would be unwise to impute adoption rates from this survey evidence. That is, we cannot confidently assert that a majority of firms in family law, for example, are adopting legal technology.

In BigLaw, the top three areas (by absolute number of responses) with tech adopters are: litigation and dispute resolution (17), real estate/ construction/planning (12), and corporate M&A (8). Because of the relatively small number of responses in each category, we avoid mentioning rates of adoption from Table 2.6b.

Table 2.6a: Legal technology adoption by area of law in PeopleLaw

Q23 — In which area of law are you currently using, or planning to adopt, legal technology in your firm?	Adopted		Planning to adopt		Not adopted nor planning to adopt	
	N	Row %	N	Row %	N	Row %
Bankruptcy and insolvency	7	41.2%	4	23.5%	6	35.3%
Civil liberties, discrimination and human rights	1	7.7%	11	84.6%	1	7.7%
Consumer problems	5	83.3%	1	16.7%	0	%
Company/commercial, including property and planning	**78**	**57.8%**	39	28.9%	18	13.3%
Conveyancing (residential)	**130**	**71.4%**	44	24.2%	8	4.4%
Criminal	27	81.8%	2	6.1%	4	12.1%
Employment	37	54.4%	22	32.4%	9	13.2%
Family, including children and matrimonial	**97**	**53.3%**	59	32.4%	26	14.3%
Finance	5	83.3%	1	16.7%	0	%
Housing, including landlord and tenant	10	47.6%	11	52.4%	0	%
Immigration and asylum	48	49.5%	37	38.1%	12	12.4%
Litigation and dispute resolution	**77**	**57.5%**	44	32.8%	13	9.7%
Tax	0	%	1	%	0	%
Welfare and benefits	0	%	0	%	0	%
Wills, probate, and trusts	**101**	**58.4%**	54	31.2%	18	10.4%
Other	12	41.4%	11	37.9%	6	20.7%

Table 2.6b: Legal technology adoption by area of law in BigLaw

Q23 In which area of law are you currently using, or planning to adopt, legal technology in your firm?	Currently using		Planning to use		Not planning to use	
	N	Row %	N	Row %	N	Row %
Administrative/public law	0	0%	0	0%	1	100.0%
Bankruptcy/insolvency	1	50.0%	1	50.0%	0	0%
Corporate M&A	**8**	72.7%	3	27.3%	0	0%
Financial services/insurance	3	100.0%	0	0%	0	0%
Employment/pensions	2	40.0%	2	40.0%	1	20.0%
Environmental, social, governance (ESG)	0	0%	0	0%	0	0%
Intellectual property	1	100.0%	0	0%	0	0%
Litigation and dispute resolution	**17**	73.9%	5	21.7%	1	4.3%
Public sector	1	100.0%	0	0%	0	0%
Real estate/construction/planning	**12**	66.7%	6	33.3%	0	0%
Technology/media/telecoms	6	85.7%	1	14.3%	0	0%
Transport	4	66.7%	0	0%	2	33.3%
Tax	0	0%	0	0%	1	100.0%
Other	3	100.0%	0	0%	0	0%

Drivers of and barriers to innovation and legal technology adoption

We now turn our attention to drivers of technology adoption and innovation, followed by barriers. Among the drivers, the survey focused on asking about the purposes of tech adoption, which are more closely linked to firm level strategy. We do not ask about other macro-level drivers such as competition in the market. This section provides a broad overview of barriers, before we take a deep dive into regulatory barriers in the next section.

2.2.1 Purpose of technology adoption

We compare the main purposes of adopting legal technology given by two groups of respondents, namely current users and future users. For the current users, the three top purposes are to 'improve service quality' (71.5%), 'improve efficiency of workflows' (70.9%), and 'allow staff to work more flexibly' (43.9%) (see Table 2.7). For future users (not using now but planning on using), the same three items came top. Thus, there is no significant difference between current and future users in their main reasons for using legal technology.

The other purposes are ordered in a slightly different way between the two groups. For current users, 'reducing the overall cost of service delivery' and 'increasing security and compliance' are more prevalent purposes than 'increasing demand for our services' or 'reducing long-term business costs'. For future users, 'increasing demand for our services' is more prevalent than

'reducing the overall cost of service delivery' or 'increasing security and compliance'.

Significant variations among respondents also exist in the relative importance of various purposes. Among the current users of legal technology, 'improving service quality' is a more important purpose of using the technology for larger firms, firms with large businesses as clients (44.8%) as compared with firms with individuals (25.8%) or with small businesses as clients (23.6%), and ABSs (36.4%) compared to non-ABSs (25.1%). Similarly, 'improving efficiency of workflows' is a more important purpose of using technology for larger firms, firms with large businesses as clients, and ABSs (38.4%) compared to non-ABSs (24.4%). But 'allowing staff to work more flexibly' was an equally important purpose of technology for small and large firms and for firms with all types of clients. Similar patterns are found among future users of legal technology.

Table 2.7a: Purpose for current legal technology users

Q21	What is the main purpose of using legal technology at your firm?	N	Row %
Tick up to three. N=326 respondents who currently use legal technology (see Table 2.4)		N	Row %
Improve service quality		233	71.5%
Increase demand for our services		45	13.8%
Improve efficiency of workflows		231	70.9%
Allow staff to work more flexibly		143	43.9%
Reduce the overall cost of service delivery		106	32.5%
Improve security and/or compliance		72	22.1%
Reduce long-term business costs		42	12.9%
Recruit and retain legal talent		10	3.1%
Improve end-to-end integration with other tools or software		25	7.7%
Other		11	3.4%

Table 2.7b: Purpose for future legal technology users

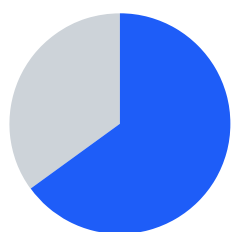| Q22	What will be the main purpose of using legal technology at your firm?	N	Row %
Tick up to three. N=212 respondents who do not use but are planning to use legal technology (see Table 2.4)		N	Row %
Improve service quality		157	74.1%
Increase demand for our services		64	30.2%
Improve efficiency of workflows		141	66.5%
Allow staff to work more flexibly		79	37.3%
Reduce the overall cost of service delivery		56	26.4%
Improve security and/or compliance		40	18.9%
Reduce long-term business costs		26	12.3%
Recruit and retain legal talent		9	4.2%
Improve end-to-end integration with other tools or software		12	5.7%
Other		4	1.9%

2.2.2 Sources of information for innovation and legal technology adoption

We also examined law firms' approaches to innovation and tech adoption including sources of information, expertise, and advice. The two most prevalent approaches to innovation are 'asking existing staff to work on it' (64.2%), followed by 'employing consultants to provide certain expertise' (48.2%). Other approaches, such as 'recruiting new staff' and 'buy, or merge with, a business that already offers innovation', were much less common. And the top three sources of information or intelligence for firms to find out about legal technology were 'legal tech providers' (48.6%), 'market research about what other law firms are doing' (47.0%), and 'internal staff knowledge' (44.1%).

The reliance on existing staff for both innovation and technology adoption is noteworthy. The use of consultants 'to provide certain expertise' for innovation applies to nearly half of all respondents, and for information on 'legal technology or legal operations' to a quarter of survey respondents. It is also noteworthy that internal expertise and external consultants are used jointly in a minority of cases; for example, 23.4% of those that rely on internal staff knowledge for legal technology also use external consultants.

Table 2.8: Approaches to innovation and legal technology adoption

Q19	When your firm wants to innovate, how does it approach it?		
Tick up to three (N=827)		N	Row %
Recruit new staff		125	15.1%
Ask existing staff to work on it		534	64.6%
Buy, or merge with, a business that already offers that innovation		34	4.1%
Employ consultants to provide certain expertise		397	48.1%
Other		106	12.8%

Q24	How did you find out about the legal technology you are using or planning to use?		
Tick up to three (N=527)		N	Row %
Discussion with or feedback from clients		94	17.8%
Market research about what other law firms are doing		244	46.3%
Internal staff knowledge		235	44.6%
Legal technology provider		258	49.0%
Consultant on legal technology or legal operations		123	23.3%
Informal discussion with other lawyers		197	37.4%
Events, including technology and innovation conferences		167	31.7%
Other		33	6.3%

64.6%

Most firms asked existing staff to work on innovation and legal technology

## 2.2.3 Barriers to legal technology adoption

The survey enquired extensively about the nature of barriers faced by respondents when adopting legal technology. We decided to do this to build on studies to date, notably the 2018 survey by the Legal Services Board (LSB); the LSB survey also was somewhat generic by not specifying the exact nature of some of the barriers.[3] We report on barriers faced by respondents who already use or are planning to use legal technology (henceforth, 'adopters') and those faced by respondents who do not use and plan to use it (henceforth, 'non–adopters'). 'Lack of financial capital to invest in technology' was chosen as the top barrier for both adopters and non–adopters of legal technology. However, significant differences exist in the second and third most important barriers.

For those adopting or planning to adopt legal technology (the adopters), the most significant barriers to adopting (or planning to adopt) legal technology were:
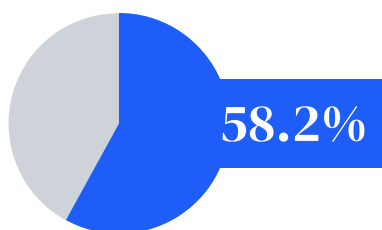
58.2%

1. 'lack of financial capital to invest in technology' (rated as somewhat significant or very significant by 58.2%)

50.1%
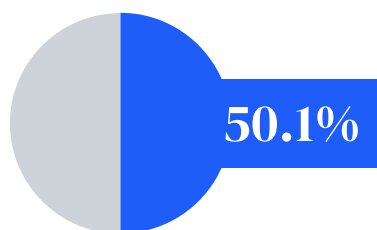
2. 'lack of staff expertise to assess and implement technology' (50.1%)

44.7%
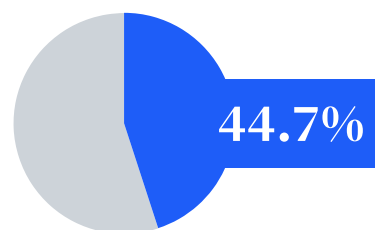
3. 'regulatory uncertainty or barrier' (44.7%)

3 Legal Services Board (2018) Technology and Innovation in Legal Services – Main Report, November. In the LSB survey, 'Regulatory factors' and 'Legislative factors' (Figure 47) were captured in the list of constraints on service development. The survey also asked whether specific areas of regulation had a positive or negative effects on innovation (Figure 49), but did not ask in what ways.

Not surprisingly, among adopters, 'lack of financial capital to invest in technology' was more important among smaller firms than large firms. It was more important for firms whose clients are individuals (29.2% of respondents said 'very significant') or small businesses (12.8%) than for those with large business clients (7.1%). Thus, financial capital as a barrier is more of an issue in PeopleLaw than in BigLaw. 'Lack of staff expertise to assess and implement technology' is also a PeopleLaw issue: 33.3% of sole practitioners as compared to 5.7% of LLPs and 7.1% of partnerships, and 9.4% of respondents with individual clients and 5.9% with small business clients as compared to 2.3% of respondents with large business clients, said that lack of staff expertise is a 'very significant' barrier to tech adoption.

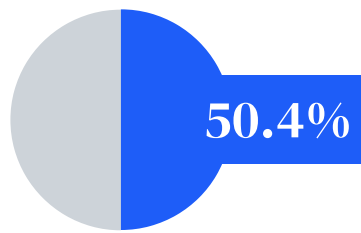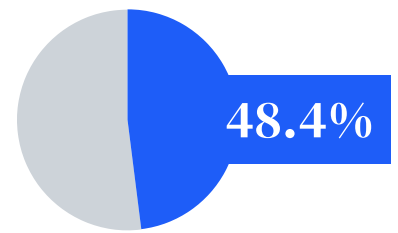**For the non-adopters** (ie. those not adopting or planning to adopt legal technology), the most significant barriers to adopting (or planning to adopt) legal technology were:

50.9%
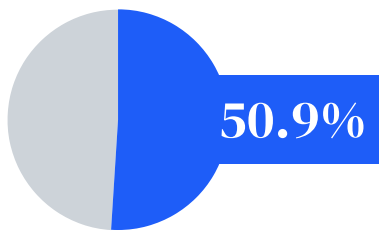
1. 'lack of financial capital to invest in technology' (rated as somewhat significant or very significant by 50.9%)

50.4%

2. 'lack of consumer appetite' (50.4%)

48.4%

3. 'not a strategic priority' (48.4%)

Similar to the adopters, 'lack of financial capital' is more of a barrier for non-adopter respondents in PeopleLaw than in BigLaw. 'Lack of consumer appetite' is more significant a barrier for respondents with large business clients (46.2% thought 'very significant') than for those with individuals (17.6%) or small businesses (10.2%) as clients. As for legal technology adoption not being a strategic priority, more non-ABSs (21.0%) think it 'very significant' than ABSs (6.7%). Lack of strategic priority also applied more to respondents with individual or small business clients (20.0% in either case) than to those with large business clients (15.0%).

The top three risk factors that discourage respondents from using or planning to use legal technology are that 'the investment in it might not bring any business benefits' (55.6%), 'it may pose unexpected legal/regulatory risk to the business' (34.1%), and 'support from the technology provider may be inadequate' (27.8%) – see Table 2.10. Thus, 'unexpected legal or regulatory risk', faced by one-third of all respondents, is worthwhile unpacking in the next section. We also return to the theme of risks – how legal service providers are mitigating a variety of risks related to technology adoption – in Chapter 4.

Table 2.9: Barriers to adopting legal technology

Q25	For adopters: How significant are the following potential barriers to your firm when adopting, or planning to adopt legal technology?										
		Not at all significant		Somewhat insignificant		Neither insignificant nor significant		Somewhat significant		Very significant		Responses
		N	Row %	N	Row %	N	Row %	N	Row %	N	Row %	
Not a strategic priority		125	25.6%	74	15.2%	146	29.9%	106	21.7%	37	7.6%	488
Lack of financial capital to invest in technology		64	12.5%	50	9.8%	99	19.4%	177	**34.7%**	120	**23.5%**	510
Lack of staff expertise to assess and implement technology		77	15.4%	57	11.4%	115	23.0%	208	**41.7%**	42	**8.4%**	499
Lack of consumer appetite		74	15.4%	77	16.0%	163	34.0%	132	27.5%	34	7.1%	480
Regulatory uncertainty or barrier		67	13.8%	57	11.8%	144	29.7%	145	**29.9%**	72	**14.8%**	485

Note: top three barriers are in bold.

Q26	For non-adopters: How significant are the following potential reasons to your firm not adopting, or planning to adopt any legal technology?										
		Not at all significant		Somewhat insignificant		Neither insignificant nor significant		Somewhat significant		Very significant		Responses
		N	Row %	N	Row %	N	Row %	N	Row %	N	Row %	
Not a strategic priority		49	17.6%	13	4.7%	82	29.4%	77	**27.6%**	58	**20.8%**	279
Lack of financial capital to invest in technology		52	19.0%	25	9.2%	57	20.9%	84	**30.8%**	55	**20.1%**	273
Lack of staff expertise to assess and implement technology		55	20.3%	26	9.6%	76	28.0%	80	29.5%	34	12.5%	271
Lack of consumer appetite		33	12.3%	17	6.3%	83	31.0%	87	**32.5%**	48	**17.9%**	268
Regulatory uncertainty or barrier		54	20.9%	21	8.1%	93	36.0%	57	22.1%	33	12.8%	258

Note: top three barriers are in bold.

Table 2.10: Risks when adopting legal technology

Q29	What do you think are the main risks when adopting legal technology?	N	Row %
Tick up to three (N=504)		N	Row %
We have not considered using legal technology at all		39	7.7%
It may not work as anticipated		122	24.2%
Clients may not like it		111	22.0%
Difficulty in getting buy-in from staff		73	14.5%
Support from the technology provider may be inadequate		140	**27.8%**
It may pose unexpected legal / regulatory risk to the business		172	**34.1%**
Cannot claim insurance or compensation from the technology provider if things go wrong with it		52	10.3%
The investment in it might not bring any business benefits		280	**55.6%**
Other		57	11.3%

55.6%

'The investment in it might not bring any business benefits' as the top factor that discouraged respondents from using or planning to use legal technology.

Note: top three risks are in bold.
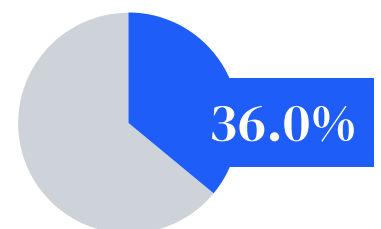
2.2.4 Barriers to innovation

The three top reasons for firms not innovating, or not innovating more, are: 'uncertainty about the expected business benefits' (36.0%), 'not a strategic priority' (31.0%), and 'it isn't needed at my firm' (27.4%). The next three reasons are: 'lack of staff expertise' (25.4%), 'possibility of unexpected legal or regulatory risk in the future' (20.4%), and 'current regulatory uncertainty or barriers' (19.8%).

These innovation barriers are related to tech adoption barriers in a systematic manner. In particular, those who cited 'lack of staff expertise' as an innovation barrier are also more likely to face 'lack of staff expertise' as a technology adoption barrier than those that did not. With respect to regulatory barriers, 77.8% of those who cited 'possibility of unexpected legal or regulatory risk in the future' as an innovation barrier also cited 'regulatory uncertainty or barrier' to technology adoption, compared to only 36.3% of those that did not cite this innovation barrier.

Table 2.11: Barriers to innovation

Q17	Is there anything stopping your firm from innovating, or innovating more?	N	Row %
Tick up to three (N=872)		N	Row %
It isn't needed at my firm		215	**27.4%**
Not a strategic priority		243	**31.0%**
Lack of staff expertise		199	25.4%
Staff reluctance or resistance		79	10.1%
Current regulatory uncertainty or barriers		155	19.8%
Possibility of unexpected legal or regulatory risk in the future		160	20.4%
Possibility of low consumer appetite		121	15.4%
Possible or actual difficulty in getting or claiming insurance		68	8.7%
Uncertainty about the expected business benefits		282	**36.0%**
Potential change remains untested		99	12.6%

36.0%

'Uncertainty about the expected business benefits' as the top factor with respect to barriers.

Note: top three barriers are in bold.

Regulatory barriers and uncertainty for innovation and technology adoption

This section focuses on regulatory barriers and uncertainty facing innovation and technology adoption to help the SRA learn more about where they can support firms. To recap, 44.1% of legal tech adopters and 34.9% of legal tech non-adopters cite 'regulatory uncertainty or barrier' as somewhat significant or very significant when deciding whether to adopt new legal technology. Moreover, with respect to innovation, 20.4% cite 'possibility of unexpected legal or regulatory risk in the future', and 19.8% cite 'current regulatory uncertainty or barriers' as reasons why they do not innovate or innovate more.

2.3.1 Regulatory barriers & uncertainty

The respondents who cited 'regulatory uncertainty or barrier' to legal tech adoption were also asked about the specifics of these. The top three types of regulatory uncertainties or barriers when adopting, or planning to adopt, legal technology are: 'client confidentiality and data protection requirements' (69.8%), 'professional indemnity insurance requirements' (63.1%), and 'not knowing if wider regulations and legislation allows what we are considering' (43.6%). With respect to client confidentiality and data, one respondent elaborated: 'The SRA needs to give clear guidance on what is required under GDPR.'

Among the adopters of legal technology, 'regulatory uncertainty or barrier' varied according to firm age: 21.7% of young firms established in the last 5 years said it is 'very significant' as compared to 8.9% of those established over 20 years ago. This is also more

of a barrier for sole practitioners (45.5% find it 'very significant') as compared to 13.0% for incorporated companies, LLP, and partnerships. Moreover, 47.4% of respondents with individual clients and 43.0 % of those with small business clients, as compared to 32.5% of those with large business clients, find 'regulatory uncertainty and barrier' to be 'somewhat significant' or 'very significant'. In short, regulatory uncertainty or barrier is more of an issue in PeopleLaw than in BigLaw.

Among the non-adopters, 'regulatory uncertainty or barrier' is 'somewhat significant' or 'very significant' among 40.0% of respondents with individual clients, 28.6% of those with small business clients, and 27.3% of those with large business clients. Thus, regulatory barriers are more significant for the PeopleLaw sector, for both non-adopters and adopters of legal technology.

Table 2.12: Regulatory uncertainties and barriers

Q27	What do you think are the main regulatory uncertainties or barriers when adopting, or planning to adopt, legal technology?		
Tick up to three (N=179)		N	Row %
Not knowing if wider regulations and legislation allow what we are considering		78	43.6%
Client confidentiality and data protection requirements		125	69.8%
Money laundering regulations		68	38.0%
Managing client money requirements		31	17.3%
Professional indemnity insurance requirements		113	63.1%
Other		11	6.1%

69.8%
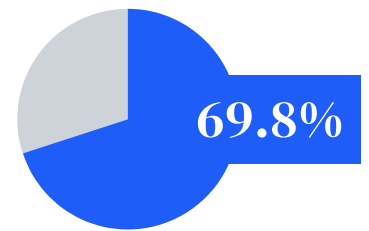
'Client confidentiality and data protection requirement' as the top regulatory uncertainty or barrier.

INTERVIEW INSIGHTS

Barriers to technology adoption and innovation

Among regulatory barriers, interviewees highlighted difficulties with the blurred lines between reserved and unreserved activities.

'We were talking about taking our consultant programme to the next level – to a form of franchising. The position was clearer before standards and regulations. The framework rules made it clear, but now the definition of employee that they [the SRA] use stifles that opportunity for innovation. More flexibility would help.' Law Firm

'Firms who are innovating are looking for a more direct line to the regulator rather than a lot of form filling. On the SRA innovation competition, unregulated entrants are getting the funds that solicitors are paying in; their value proposition is they are unregulated.' Law Firm

Among other non–regulatory barriers, limited resources, financial and human, are mentioned as barriers.

'….we don't have access to external capital and…our members aren't going to shell out. So, we develop on a shoestring. So, we have kept our model of development very light, very focused. We can't afford an hour of misspent time. So, we get a long way by having a highly disciplined approach.' ABS

'The biggest barrier is securing and retaining IT development resource. There is a limited pool of experts and keeping them is a challenge.' Law Firm

2.3.2 What the Solicitors Regulation Authority (SRA) could do

The majority of survey respondents said that SRA regulations had not stopped them from innovating. But a minority (6.3%) said 'SRA regulations stopped respondents from making changes to services or introducing new technology'. Of the 6.3%, a fifth asked the SRA or others for advice, but two-thirds did not proceed with any change. Over 400 respondents provided written details about how the SRA could support their firm to adopt or use legal technology. These were largely around the following themes:

1. Clarity in guidance and/or regulation

2. Help with regulatory compliance

3. Less or simpler regulation

4. Non-regulatory assistance or support, including financial support

5. Education/training/information/conferences/ webinars

6. Accreditation or recommendation of legal technology providers

7. Professional indemnity insurance

As indicated by the word cloud, the words 'provide' and 'guidance' were used by many respondents (see Figure 2.2). Many survey respondents are more concerned with lack of clarity in guidance received from the SRA than with wanting less (or more) regulation, though some also wanted the latter, for example by regulating providers in the unregulated sector. One asserted that 'uncertainty caused by "outcomes focused" regulation is unhelpful to cautious firms'. Another stated that the SRA should 'provide clear guidance instead of telling us that it is for us to decide what their rules mean'. Clarity is sought on a range of areas including 'regulations allowing unbundled services without liability', 'on how limitation of liability applies to technological solutions provided to clients', 'the risks of cloud-based information storage', 'what electronic client verifications are acceptable to use', and 'cloud/search engine privacy issues'.

Figure 2.2: How the SRA could help firms to use legal technology

Q34. If the SRA could do one thing to support your firm to adopt or use legal technology, what would that be?

A few respondents were explicit in asking the SRA to 'assist with information on what works, despite regulatory framework'. Others were more specific about how the SRA can help with regulatory compliance, including: 'Education on what technology is available and how to implement it in a way which is compliant with SRA regulations' and 'offer "innovation appointments" where solicitors could book online appointments with a specialist to talk through innovative ideas and the likely regulatory impact'.

Moving onto non-regulatory assistance and support, comments in this category were asking the SRA for advice on IT, financial assistance, signposts to funding/grant, and sources of information about legal technology. Other responses looked to the SRA for opportunities in legal technology education and training, and dissemination of information about best practice via conferences and webinars.

Another category of respondents' answers concerns technology providers. Survey respondents asked for the SRA to recommend or approve legal technologies or providers. As one respondent put it, the SRA could 'help to identify what is worth investing in and signpost possible funding – it is too expensive to make a mistake'.

Others were more explicit in asking the SRA to 'give quality assurance about the technology to be used' by 'providing an approved list of providers', 'recommending affordable technologies to assist small firms', or 'recommendation on the most appropriate technology having regard to the size of the practice and the types of work carried out'. Yet others want the SRA to 'attach accreditation to firms which adopt technology'. Underlying many of the comments in this category is the respondents' wish to raise confidence and trust in the functionality of specific tools, and to reduce information asymmetry about the benefit of investing in legal technology.

Last and not least are a set of comments on professional indemnity insurance (PII). Some highlighted the high premiums demanded by insurers for cover, diverting financial resources away from making investment in legal technology. One respondent asked the SRA to 'address the fact that the cost of PII, even for firms with good claims records, is becoming so prohibitive that it is impacting on ability to make the necessary financial investment in legal technology'. In short, the survey respondents are asking the SRA to ensure solicitors can be covered effectively and economically by PII. Chapter 4 contains more discussion of PII in light of evidence from our interviews.

2.3.3 Regulatory insights from a survey experiment

The online survey also asked respondents to answer three questions in a survey experiment format. Respondents were assigned randomly to one of a pair of scenarios, and three pairs were included in the survey. Survey experiment design enables us to obtain behavioural insights into likely responses to an event (such as a regulatory shift or support to enhance trust and confidence in legal technology). While hypothetical, the survey instruction asked respondents 'to imagine some scenarios that you might encounter when thinking about adopting legal technology'.

Regulatory advice vs technology advice for innovation

The first pair of scenarios concerned a government grant scheme with the offer of advice from either a regulatory expert or a technology expert. We asked:

You have been given £100,000 from a UK government grant scheme that can be used to make improvements at your firm. The government will also provide funding for an expert who can give you advice on the [regulatory aspect OR technological aspect] of offering a new service.

How would you spend the government grant? Which one of the following is your priority? Please choose one:

☐ Make improvements in delivering or marketing existing service offerings

☐ Decide to introduce a new service offering, after market testing to identify potential client base

Respondents were randomly assigned to see either a version of this question with regulatory advice or a version with technology advice. Because product innovation (ie. introducing a new service offering) requires greater risk-taking than delivery or market innovation, we had expected that regulatory advice would be more important when considering product innovation. However, an overwhelming majority (nearly 80% in each category) chose the less-risky option of delivery or market innovation ('make improvements in delivery or marketing existing service offerings') regardless of whether the advice was about regulation or about technology. As shown in Figure 2.3, 21.3% in the group with regulatory advice chose 'introduce new service offerings', as compared to 21.5% in the group with technological expert input. The differences are statistically insignificant.

Figure 2.3: Comparing regulatory advice vs technology advice

Legend: Improve delivery or marketing of existing service (blue) / Introduce new service offering (yellow)
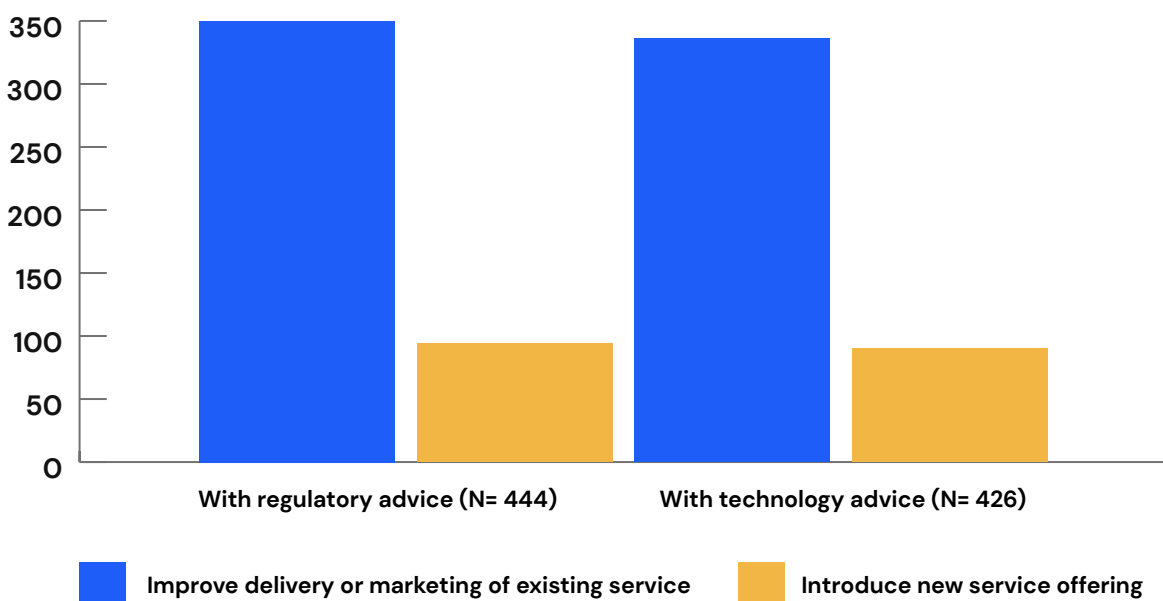
Willingness to pay for a technology tool with technology expertise vs government accreditation

The second pair of scenarios concerned the willingness to pay for a legal technology tool technology expert. We asked:

Your firm is considering adopting a legal technology tool, a chatbot (software that conducts online conversation via text or speech with clients), that will cost about 3% of your total revenue per annum. Another tool with the same functionality has been [suggested to you by a legal technology expert whose competence you trust OR accredited by a government standards body]. How much more are you willing to pay for this accredited tool?

- ☐ 0% more (ie, the same as the one you found)
- ☐ Up to 5% more
- ☐ 6 – 20% more
- ☐ 21 – 25% more
- ☐ More than 25% more

The willingness to pay for a chatbot (as an example of legal technology) is higher if it has been suggested by 'a legal tech expert whose competence one trusts', than if it is accredited by a government standards body. Figure 2.4 shows that half (49.6%) of the respondents receiving technology expert advice would pay a premium price (ie. above 0%) compared to 43.4% of respondents with government accreditation of the tool.

A possible reason why respondents are willing to pay more when a tool is recommended by a legal technology expert than when it is accredited by a government body is the likely advice a technology expert might give not only about the tool's functionality but also on its implementation. An earlier finding was that hiring technology consultants was a common approach to implement innovation (for 48.3% of survey respondents), and to adopt legal technology (for 23% of respondents) (see section 2.2.2).

Figure 2.4: Willingness to pay for a technology tool with technological expertise vs with government accreditation
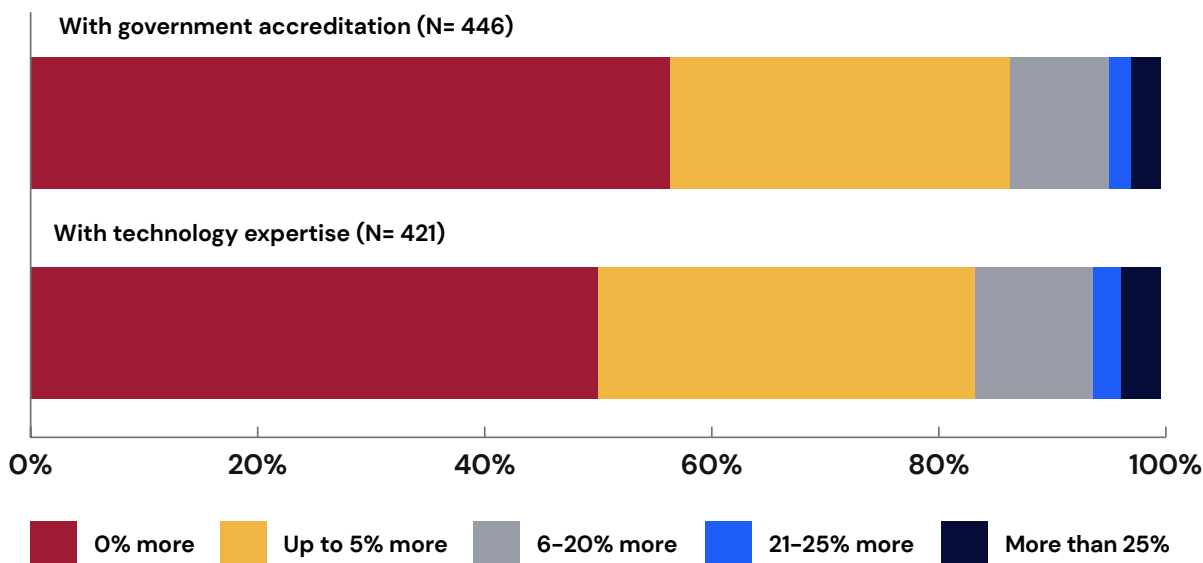
Willingness to adopt a technology tool used by competitors vs requested by clients

The third pair of scenarios concern the likelihood of adopting an online web portal if competitors are adopting it, or if clients are asking for it. We asked:

Your firm is considering adopting an online web portal, so that your clients can monitor their matter status. You have noticed that [your main competitors have adopted OR your clients are showing a keen interest in] a particular software tool that seems suitable for this purpose. How likely are you to adopt that tool?

- ☐ Extremely unlikely
- ☐ Somewhat unlikely
- ☐ Neither likely nor unlikely
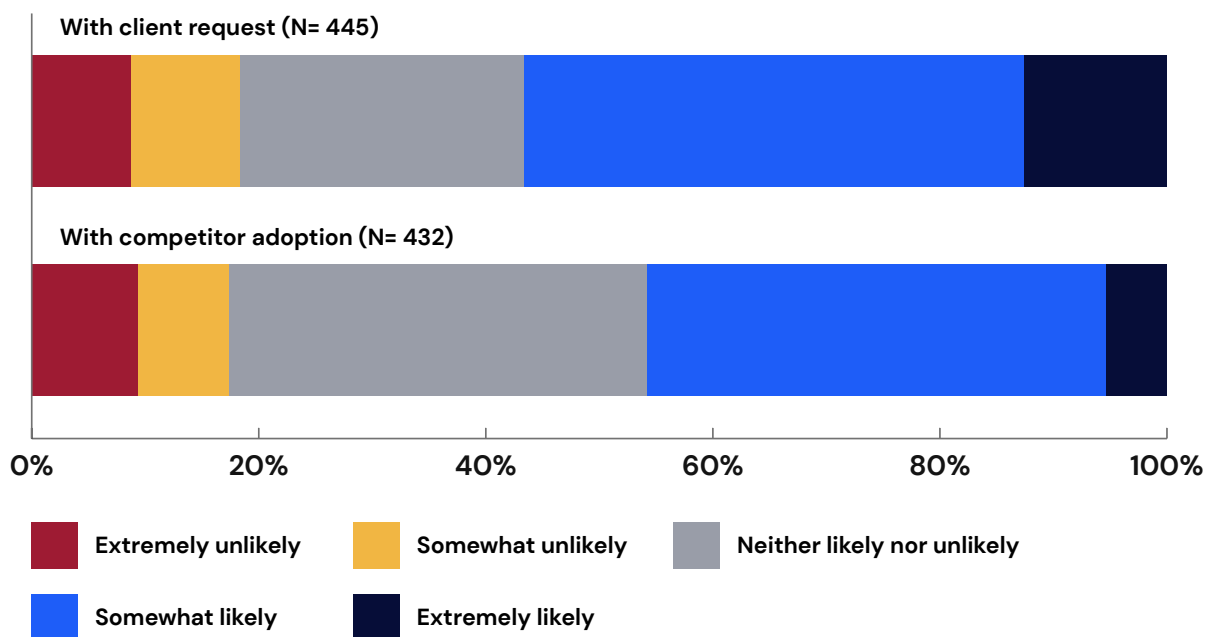- ☐ Somewhat likely
- ☐ Extremely likely

Respondents' willingness to adopt the online web portal tool is somewhat greater if clients request its adoption than if competitors are adopting it. Figure 2.5 shows that 56.4% of respondents with client requests say that the adoption of the web portal is either 'somewhat likely' or 'extremely likely', as compared to 45.6% of those with competitor adoption. Customer voice is evidently stronger than competitive pressure in the market. This result is consistent with the survey evidence cited earlier, that 'lack of consumer appetite' (cited by 50.4% of non–adopters of legal technology) is the second most important barrier after 'lack of financial capital to invest in technology' (57.9%), (see Table 2.9).

These survey experiment results shed light into the likely behaviour of legal practices. In short, client request is unsurprisingly more effective than competitor adoption in inducing technology adoption. Easing access to technology consultants or advisors is likely to induce greater legal technology adoption than government accreditation of technology tools. And regardless of access to regulatory advice or technological advice, legal practices are more likely to consider delivery or marketing innovation (for existing products) than product innovation (offering new services).

Figure 2.5: Adoption of a technology tool used by competitors vs requested by clients

(Percent distribution of total)

With client request (N= 445)

With competitor adoption (N= 432)

- ■ Extremely unlikely
- ■ Somewhat unlikely
- ■ Neither likely nor unlikely
- ■ Somewhat likely
- ■ Extremely likely

Chapter Summary

The interviews and the online survey reveal an up-to-date picture of innovation and technology adoption in legal services, with a clear fresh impact of the COVID-19 pandemic. The last 12 months (up to mid-April 2021) saw over half (55.1%) of survey respondents improving or increasing the use of existing technology, just under half (48.4%) making changes in ways to deliver services, and a third (35.3%) introducing new technology. Over half of the survey respondents said that the COVID-19 pandemic led them to increased technology use 'to manage or process work' (76.0%), 'to attract new clients' (71.1%), and 'to interact with clients' (63.8%).

Nevertheless, innovation and technology adoption may not be for everyone. Around a third of the respondents that did not innovate thought that innovation was not needed at their firm or that it was not their strategic priority. Legal technology adoption also faced significant barriers. First, 'lack of financial capital to invest in technology' was chosen as the top barrier for both adopters and non-adopters of legal technology. And lack of staff expertise and regulatory uncertainty/barriers are the second and third most important barriers among adopters, while lack of consumer appetite and absence of strategic priority are the second and third ranked barriers among non-adopters.

The online survey respondents offered a variety of concrete measures that the SRA could adopt to reduce regulatory barriers and uncertainty when innovating or adopting legal technology. These included enhancing clarity in regulatory guidance and compliance, non-regulatory assistance and support, education and training on legal technology, and measures to enhance the confidence and trust in technology tools and providers. We will revisit some of these regulatory issues in Chapter 6.

This chapter provided an overview of the SRA-regulated legal practices in England and Wales. The next chapter adopts a wider angled lens, to examine market segmentation including the sector not regulated by the SRA.

Final Report for the Solicitors Regulation Authority

Appendix to Chapter 2

Interview methodology

We identified organisations to be interviewed, by classifying them into legal service providers with individual and small business clients in areas such as conveyancing, personal injury, family, employment, immigration, and consumer matters, and those that advise large businesses, supporting commercial transactions and disputes. We also ensured variety in terms of ownership structures to include law firm partnerships, law companies, alternative business structures (ABSs) and other alternative legal services providers (ASLPs).

We contacted potential interviewees by email, or if we did not have their direct contact details, via LinkedIn. Each interview, conducted via Zoom, lasted one hour on average. All interviewees in each category were asked the same questions, which were developed by the Oxford University team and signed off by the SRA. To ensure the authenticity of interview-based insights, a written assurance of anonymity was set out in the participant information sheet, emailed to all interview participants ahead of their interviews. The interviewee quotes included in this report are therefore provided on an unattributable basis. And, while the SRA was made aware of the broad demographics of the interviews undertaken, it was not informed about specific legal practices or persons to be interviewed. All interviews were recorded and professionally transcribed, and detailed notes were taken during the interviews. The recordings and transcriptions were used to identify key themes and to provide examples to include in the report.

Please refer to the Annex Report for further details about the characteristics of the interviewees.

Survey methodology

A questionnaire survey was developed with the SRA taking a lead in ensuring that the questions would be consistent with their current and future strategic priorities. The SRA used an online survey platform called Alchemer. The SRA sent emails on 23 March 2021 to the population of 10,644 authorised signatories across all regulated entities and to 299 freelancers, asking them to fill in the online survey. Reminders were sent on 6 and 14 April 2021, and the survey closed on 16 April 2021.

Survey sample characteristics

1221 responded, of which 891 completed the whole survey. The distribution of survey responses is compared to the population distribution along three factors, namely size (measured by turnover), location, and firm age. The survey sample distribution reflects the population distribution well in terms of turnover and regional location, but under-represents younger firms (see the Tables on the next page).

Annex Tables: Sample and Population Characteristics Compared

Turnover	Population	Survey Responses	Population % Distribution	Survey Sample % Distribution
Up to £20,000	303	58	3.37	6.6
£20,000 – £100,000	1659	178	18.43	20.2
£100,000 – £200,000	1300	109	14.44	12.4
£200,000 – £400,000	1571	116	17.46	13.2
£400,000 – £1m	1898	161	21.09	18.3
£1m – £2.5m	1198	110	13.31	12.5
£2.5m – £10m	746	96	8.29	10.9
£10m – £50m	222	30	2.47	3.4
£50m+	103	23	1.14	2.6
Total	**9000**	**881**	**100%**	**100%**

Region	Population	Survey Responses	Population % Distribution	Survey Sample % Distribution
East Midlands	384	46	4.31	5.2
East of England	619	37	6.95	4.2
London	2979	297	33.43	33.4
North East	236	28	2.65	3.1
North West	1239	92	13.9	10.3
South East	1101	145	12.36	16.3
South West	594	70	6.67	7.9
Wales	378	33	4.24	3.7
West Midlands	722	65	8.1	7.3
Yorkshire and The Humber	659	54	7.4	6.1
Nationwide	0	22	0	2.5
Total	**8911**	**889**	**100%**	**100%**

Age	Population	Survey Responses	Population % Distribution	Survey Sample % Distribution
Up to 2 years	1143	85	12.7	9.6
2 – 5 years	1727	128	19.19	14.5
6 – 10 years	2497	107	27.74	12.1
11 – 20 years	2224	235	24.71	26.7
21+ years	1409	326	15.66	37.0
Total	**9000**	**881**	**100%**	**100%**

Note: Totals differ across these tables owing to missing values in the survey and SRA data. data. The SRA does not use the region category 'Nationwide'; instead it uses the postal code of the firm's headquarter location.

Market Segmentation in the Legal Sector

INTERACTIVE CONTENT LINKS
3.1 PeopleLaw vs BigLaw
3.2 Regulated vs unregulated markets: a labour market perspective
3.3 Understanding the unregulated sector
Appendix to Chapter 3

What market segments in legal services are most likely to innovate? To answer this question, legal services markets may be segmented in different ways, depending on regulatory and other considerations.

In the face of market entry by alternative legal service providers and technology providers, there is a pressing need to develop a better understanding of the unregulated sector. This unregulated sector is potentially capable of being more innovative because of less restrictive regulation, and yet potentially at risk of causing consumer detriment owing to the relative absence of standards and regulation. What, then, are an appropriate regulatory principle and activities to be applied to promote innovation in the regulated sector?

Within, and separate from, the regulated vs unregulated market segmentation is the distinction between PeopleLaw and BigLaw. These segments represent individuals and small businesses on the one hand and large corporations on the other as their respective client bases. The last few decades have seen an increasing concentration of resources within the legal sector toward serving corporate clients, to the alleged detriment of individual and small business clients.[1] Will the adoption of legal technology level the playing field, lowering cost of access to legal services, thus equalising resources and meet needs in PeopleLaw and BigLaw?

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1 John Armour and Mari Sako (2021) *Lawtech: Levelling the Playing Field?* SSRN working paper.

In order to be able to answer these questions in subsequent chapters, we aim in this chapter to present available evidence of recent developments in the market segments.

The chapter is structured as follows:

• The first section looks at market segmentation by client type – PeopleLaw and BigLaw – focusing on ways in which they differ.

• The second section shifts to market segmentation by regulation, contrasting the SRA-regulated and the non-SRA legal sectors from a labour market perspective. In particular, we analyse a large dataset of nearly 900,000 online job postings in the UK during 2014–2020, to identify variations in lawyer and non-lawyer jobs requiring lawtech skills as part of their job specification. Direct comparisons are made with the US. The term 'lawyer' is used here to refer to 'solicitors, barristers, and judges', and 'non-lawyer' refers to other jobs in the legal sector.

• The third section presents a way to consider the unregulated sector, by identifying layers of law, regulation, and standards. This framework facilitates the discussion of policies to promote lawtech startups in Chapter 5 and broader implications for policy and regulation in Chapter 6.

PeopleLaw vs BigLaw

T he legal services market is commonly thought of as divided into two 'hemispheres'– the part of the legal sector that provides services to sizeable corporate clients – BigLaw – and the part that does not.

This divide was brought to prominence in the seminal work *Chicago Lawyers: The Social Structure of the Bar*,[2] which studied legal practice in the 1970s. In the United States, a number of commentators have since charted a decline over time of both the proportion of the total legal services market and, in recent years, the absolute dollar amount spent, attributable to PeopleLaw.[3]

Law Society research. In order to shed light on whether or not the UK has seen a similar trend, national statistics unfortunately are not of use. The Office of National Statistics does not provide a sufficiently detailed industry classification to break down the 'legal activities' sector by class of client. There are past attempts at developing a methodology for market segmentation by type of consumer, type of consumer problem, and type of legal activity[4] but this exercise had the PeopleLaw sector as its primary concern, making it impossible to weigh the relative importance of the two sectors.

2 Heinz, J. P., & Laumann, E. O. 1982. *Chicago Lawyers: the Social Structure of the Bar*. Evanston: Northwestern University Press.
3 Heinz, J. P., Laumann, E. O., Nelson, R. L., & Michelson, E. 1998. The changing character of lawyers' work: Chicago in 1975 and 1995. *Law and Society Review*: 751–776. Hadfield, G. K. 2010. Higher Demand, Lower Supply – A Comparative Assessment of the Legal Resource Landscape for Ordinary Americans. *Fordham Urb. LJ*, 37: 129. Henderson, W. D. 2018. *Legal Market Landscape Report*: commissioned by the State Bar of California.
4 Oxera Consulting Limited (2011) Market segmentation – a framework to monitor the legal sector. Report for the Legal Services Board.

An alternative approach, given this data constraint, is to use law firm data analysed by the Law Society of England and Wales's research. This enables breaking down law firm turnover and headcount by areas of legal work. The areas of work are classified into B2C if they predominantly serve individuals (e.g. family law, criminal law, residential conveyancing, wills and probate) and into B2B if the areas serve corporate clients (e.g. commercial/corporate, litigation/dispute resolution and commercial property and planning). A recent study by KPMG for the Law Society reports that, of the total of £24 billion in law firm turnover in 2016/17, 60% was in corporate client work (B2B) and approximately 20% in individual client work (B2C) (see Figure 3.1).[5] This 20% for B2C was as high as 50% in 1997/8, according to an analysis using the same Law Society data source (OFT (2001), page 44).[6] In 2016/17, although B2C accounted for only 22% of total law firm turnover, this market segment accounted for 33% of all law firms and 35% of solicitors, indicating that law firms are smaller and revenue per lawyer lower in PeopleLaw than in BigLaw (see Figure 3.2).

Moreover, the Solicitors Regulation Authority estimate that only 11% of law firm revenues in England and Wales come from work provided to vulnerable, or potentially vulnerable, individuals.[7] This is partly because much of this work is pro bono or funded by Legal Aid. Also, the transactions are numerous but of a much lower value than in corporate or commercial work. There has also been significant growth in the number of solicitors working in-house for corporations, rising from 16% of all solicitors in 2004 to 23% by 2019 (Law Society 2020). Because this growth is directed at corporate work, it is strongly suggestive of a decline in PeopleLaw's relative share of the overall legal services market. In short, over the last two decades, the share of PeopleLaw (as proxied by the only data available for England and Wales, namely the B2C share) in the total revenue generated by law firms declined, by an amount estimated to be from around 50% to 20%.

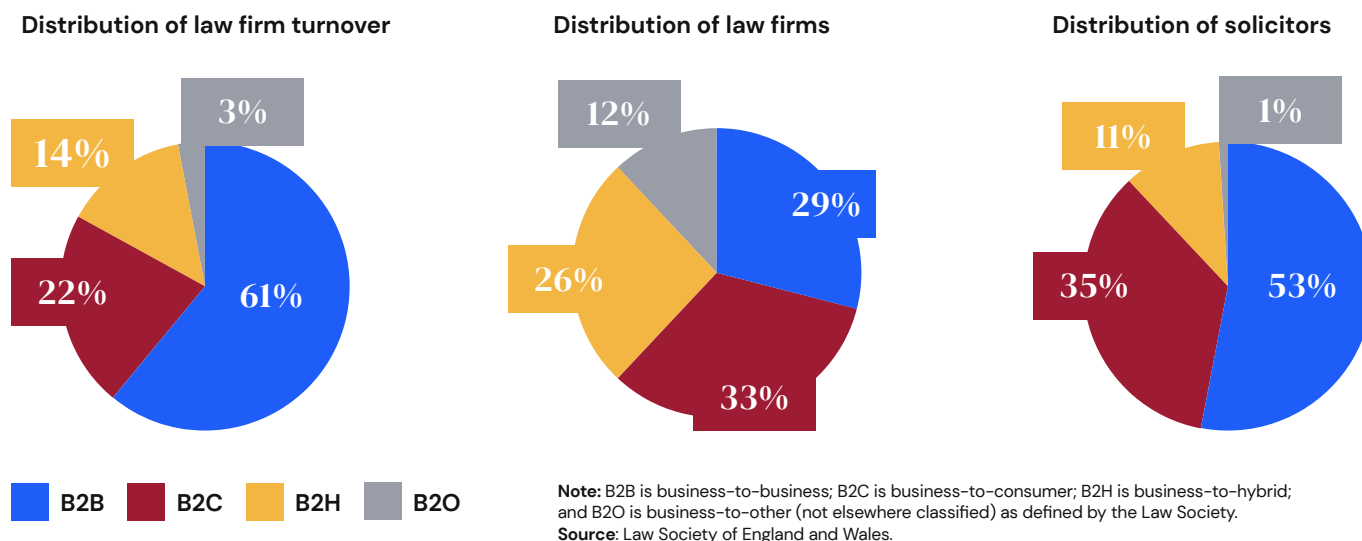## Figure 3.1: Law firm turnover by category of legal work in England and Wales

Source: KPMG (2020)

Category of work
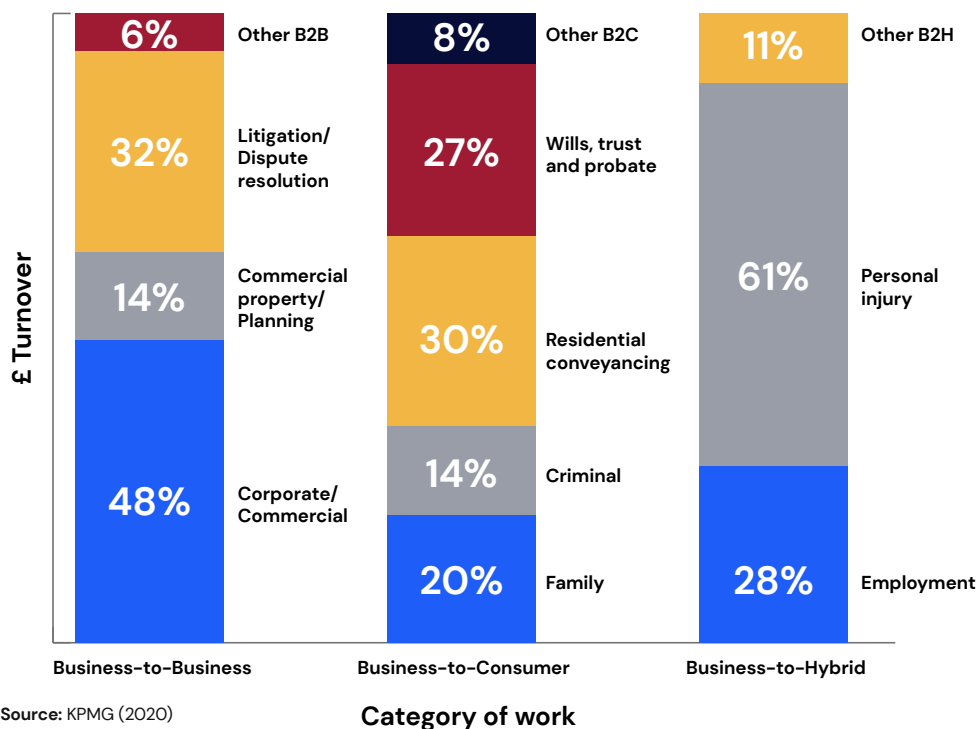
5 KPMG (2020) Contribution of the UK legal services sector to the UK economy. Report for the Law Society of England and Wales. PeopleLaw (B2C) clients are assumed to include individuals and small businesses. BigLaw (B2B) clients are primarily corporate legal departments and big law firms. A third category, HybridLaw (B2H), has as its clients the public sector (national and local governments), the judiciary, the not-for-profit sectors, and a combination of B2C and B2B clients, for example in the case of employment law applied to both employers and employees. The Law Society also created a fourth small category, B2O (O standing for others), when classification was difficult to make.
6 Office of Fair Trading (2001) Competition in Professions, A report by the Director General of Fair Trading, March.
7 Solicitors and Regulation Authority (2009) Changing legal services market.

Figure 3.2 Distribution of law firm turnover, law firms and solicitors in England and Wales, by category of legal work in 2016/17

Distribution of law firm turnover

Distribution of law firms

Distribution of solicitors

- B2B
- B2C
- B2H
- B2O

Note: B2B is business-to-business; B2C is business-to-consumer; B2H is business-to-hybrid; and B2O is business-to-other (not elsewhere classified) as defined by the Law Society.
Source: Law Society of England and Wales.

Online survey evidence on PeopleLaw vs BigLaw

The online survey results highlight the following contrasts in the two market segments (see Chapter 2 for details).[8]

- **BigLaw firms have made more changes in the last 12 months**. In the last 12 months, firms serving large businesses as clients are found to be more likely than those servicing individual or small business clients to have 'introduced new services', 'introduced new technology' and 'improved or increased use of existing technology'.

- **Both segments adopt technology for similar purposes**. Among the current users of legal technology, 'improving service quality' and 'improving efficiency of workflows' are both more important purposes of adopting technology for firms with large businesses as clients than for firms with individuals or small businesses as clients.

- **Barriers to technology adoption are greater for PeopleLaw firms**. Specifically, 'lack of financial capital to invest in technology' is more important for firms whose clients are individuals (29.2% of respondents said 'very significant') or small businesses (12.8%) than for those with large business clients (7.1%).

'Lack of staff expertise to assess and implement technology' is also a PeopleLaw issue: 5.9% with small business clients, as compared to 2.3% of respondents with large business clients, said that lack of staff expertise is a 'very significant' barrier to tech adoption.

- **Regulatory uncertainty or barriers are greater for PeopleLaw firms**. Among those already adopting legal technology, 47.4% of respondents with individual clients, as compared to 32.5% of those with large business clients, find 'regulatory uncertainty or barrier' to be 'somewhat significant' or 'very significant'. Among the non-adopters of technology, 'regulatory uncertainty or barrier' is 'somewhat significant' or 'very significant' among 40.0% of respondents with individual clients, compared to 27.3% of those with large business clients.

None of the above results might be surprising. Unless these barriers – lack of financial capital, lack of staff expertise, and regulatory uncertainty – are addressed, legal technology is unlikely to be a leveller of playing fields across the two market segments.

8 All variations by types of firms reported here are statistically significant at the 5% level, using the chi-squared test.

Alternative business structures

The introduction of alternative business structures (ABSs) was intended, among other things, to promote innovation and diversity in the provision of legal services. Since 2012, the SRA has approved ABSs, and in the first quarter of 2021 there were a total of 1,066 SRA-licensed ABSs (see Figure 3.3 for numbers approved over time). Taking account of the ABSs approved by other regulators such as ICAEW and CLC, the total number of ABSs in operation totalled 1,528 (see the Legal Services Board market structure dashboard) in the first quarter of 2021.

By organisation type, SRA-licensed ABSs are dominated by companies limited by shares, followed by limited liability partnerships.

With access to external capital and to non-legal managers and owners, ABSs have been regarded as a font of innovation and forward-looking adoption of legal technology. There exists evidence that ABSs are more innovative than non-ABS practices as early as in 2015 (in the SRA/LSB survey). In 2018, the LSB survey also found that ABSs were three times more likely to use technology. Our online survey finds similar trends, with ABSs being more innovative and more likely to have adopted legal technology (see Chapter 2 for details). In particular, ABSs (31.3%) are more than twice as likely to have introduced new services than non-ABSs (12.6%) in the last 12 months; ABSs (52.5%) are also more likely to have introduced new technology than non-ABSs (33.1%).

Figure 3.3: Number of ABSs newly licensed each year by SRA, by organisation type
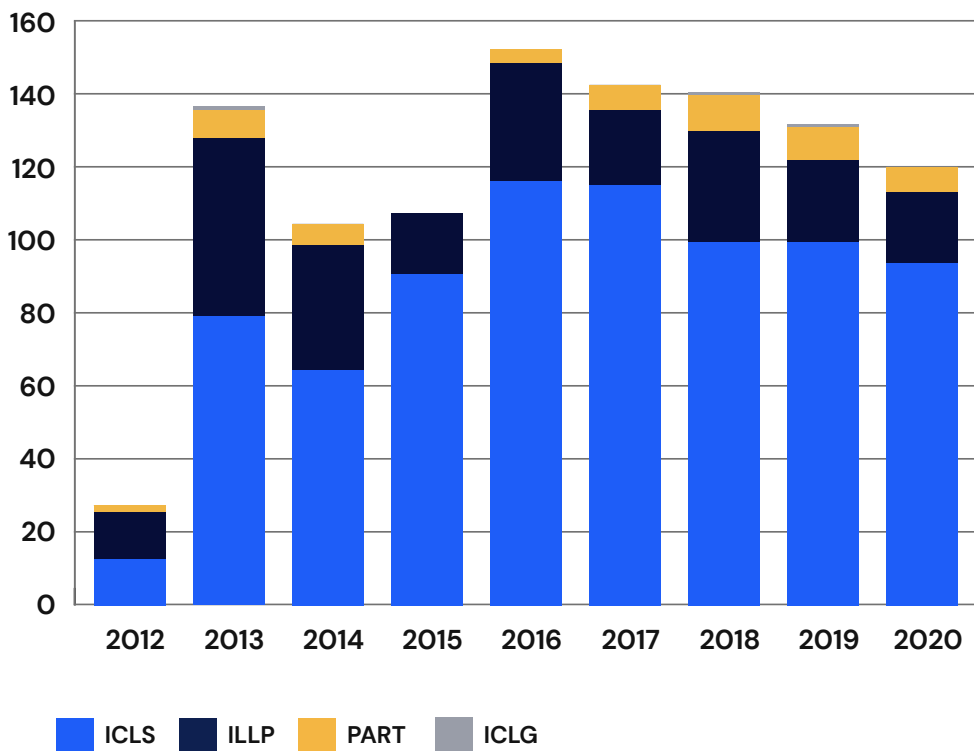
Note: ICLS: company limited by shares. ILLP: limited liability partnership. PART: partnership. ICLG: company limited by guarantee.
Source: Calculations based on data from the SRA's firm data web service accessed on 30/12/2020.

The overall picture of greater diffusion of innovation and legal technology among ABSs, however, should be modified by noting a different dynamic at play for ABSs operating in the PeopleLaw and BigLaw market segments. In particular, a majority of ABSs operate in areas of law for individual consumers – 47% of ABSs in a 2017 LSB evaluation study were found to be in wills, trusts, and probate, alongside conveyancing and personal injury (see Figure 3.4). The vast majority of law-firm-to-ABS conversions have been by small firms whose clients are individuals and small businesses rather than large businesses. At the same time, there are some large ABS entrants in both PeopleLaw (notably Co-op Legal Services) and BigLaw (notably the Big Four audit and accounting firms). ABS conversion by large incumbent law firms, such as DWF and Mishcon de Reya, has been very much the exception.

By 2021, therefore, it seems fair to state that there are two ABS hemispheres, namely PeopleLaw and BigLaw. ABSs are not a uniform population, but are divided into these two market segments, each with a different purpose. In BigLaw, ABSs are formed, adopting multi-disciplinary practices in some cases, to offer integrated business solutions – legal, accounting, tax, compliance etc. – to corporate clients. In PeopleLaw, ABSs may also be formed to deliver integrated solutions involving real estate, insurance, employment advice, etc., but also in order to access financial capital and non-legal managerial talent.

Figure 3.4: Areas of law for alternative business structures

% of total number of ABSs with revenue within service area
ABSs can be active in many services areas and therefore the percentages do not sum to 100%
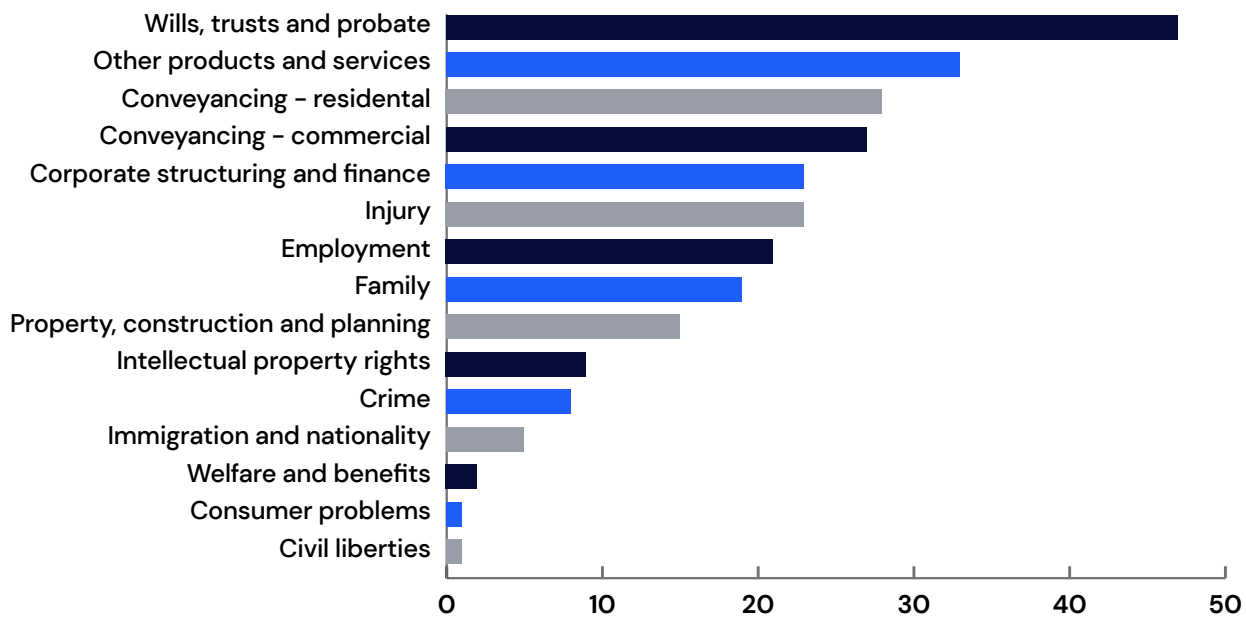
Source: LSB (2017): Evaluation: ABS and investment in legal services 2011/12 – 2016/17 – Main report, p.16.

Regulated vs unregulated markets: a labour market perspective

I n what ways do the SRA-regulated sector and the non-SRA sector differ? This section takes a labour market perspective to addressing this question, by analysing a database of digital job postings in a database hosted by Burning Glass Technologies. Burning Glass Technologies, an analytics software company, scrapes job postings from the internet.

Every day, they check more than 40,000 online job boards and company webpages to find new job vacancies (see the Chapter Appendix for further details about the database). Notable possible shortcoming include the exclusion of non-online vacancies,[9] and the changing share of jobs advertised online in total vacancies over time. Notwithstanding such shortcomings, we are able to count the number of online job vacancies advertised since 2010 in the United States and since 2012 in the United Kingdom for legal occupations and the legal sector.

Analysis approach

We compared approximately 900,000 job ads in the legal sector in the UK and a similar number of job ads in the US during 2014–2020. Extraction and filtering were conducted in three steps. First, we extracted all job ads in the legal services sector using the Standard Industrial Classification (SIC) Code 69.1 in the UK, and the equivalent North American Industrial Classifications (NAICS) code in the US. Second, we classify all job ads in the legal sector into occupational categories using the Standard Occupational Classification (SOC) codes for licensed solicitors, paralegals, etc. in the UK, and using its counterpart – O*NET – to achieve a similar classification in the US. In both countries, we classify job ads into lawyer jobs (for licensed lawyers (ie solicitors, barristers and judges in the UK)) and non-lawyer jobs (for all others excluding licensed lawyers) (Details of these classifications are in the Appendix to this chapter). Third, we identify jobs in which at least one skill required in the job listing contains one of the lawtech skills that we define. Here, we adopted a broad approach, to include digital skills in the use of package software as well as coding skills (for example data science, AI, python, SQL, etc.) (a full list of key words used to search for lawtech skills is provided in the chapter Appendix). In the UK, we also classified job ads into those occurring in the SRA-regulated sector and those in the non-SRA sector.[10] [11]

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9 In legal services, senior associate roles are unlikely to be advertised, online or not online, owing to heavy reliance on internal promotion. Moreover, senior roles and equity partner roles are unlikely to appear in this database.

10 We therefore include, in our analysis of the unregulated (non-SRA) legal sector, job postings by firms which are regulated by front-line regulators other than the SRA. We nevertheless use the term 'unregulated' as a shorthand for the sector that is not regulated by the SRA, in this subsection.

11 We classify job ads as occurring in the SRA-regulated sector or not using a fuzzy matching technique. The firm names in the Burning Glass database and in the list of regulated firms provided by SRA and the Law Society of Scotland may be extremely similar but slightly different owing to inconsistencies in spelling, abbreviations, omissions and punctuation. Given that the matches are not perfect, we use an algorithm that takes advantage of a measure called TF-IDF and calculate the distance between firms' names in different databases. This technique allows us to measure the likelihood that two firms' identifiers are true matches.

Lawtech skills

What are lawtech skills? [12] The word clouds below (see Figures 3.5 to 3.7) for job skills and job titles bring to life the nature of the beast. The word clouds in Figure 3.5 are based on skills mentioned in legal jobs (for solicitors, barristers, judges, paralegals, and legal secretaries). Legal job ads specifying lawtech skills focus on skills ranging from Microsoft Office to software development. Notably, legal jobs both with and without lawtech skills also call for communication skills and teamwork collaboration.

A similar set of word clouds for non-lawyers (defined as all those who are not solicitors, barristers, judges, or other legal associate professionals) in the legal sector also reveal interesting contrasts. In particular, non-legal

job postings that specify lawtech skills indeed mention data science skills, notably SQL, as well as Microsoft Office, whereas non-legal jobs without lawtech skills require skills in business development or human resources among other things (see Figure 3.6). The word clouds for job titles (Figure 3.7) reveal that job ads without lawtech skills are predominantly for human resources, and business development.

Job titles with lawtech skills include business analyst, system analyst, data analyst, software developer, and technology manager. Note that information technology (IT) appears in both job titles with and without lawtech, indicating that some IT refers to generic digital technology.

Figure 3.5: Word clouds of skills for legal jobs, with and without lawtech skills

without lawtech skills   **with lawtech skills**

Source: Author's calculations of 2021 Burning Glass data for: United Kingdom (2007 SIC '69.10', '69.10/2', '69.10/9', '69.1', '69.10/1', Lawyer Jobs –SOC '2413.0', '2412.0', '3520.0', '2419.0')

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12 The label 'lawtech skills' is a shorthand for 'digital skills in the legal sector'.

Figure 3.6: Word clouds of job skills of non-legal jobs in the legal sector, with and without lawtech skills

without lawtech skills   with lawtech skills

Source: Author's calculations of 2021 Burning Glass data for: United Kingdom (2007 SIC '69.10', '69.10/2', '69.10/9', '69.1', '69.10/1', Lawyer Jobs –SOC '2413.0', '2412.0', '3520.0', '2419.0')

Figure 3.7: Word clouds of job titles of non-legal jobs in the legal sector, with and without lawtech skills
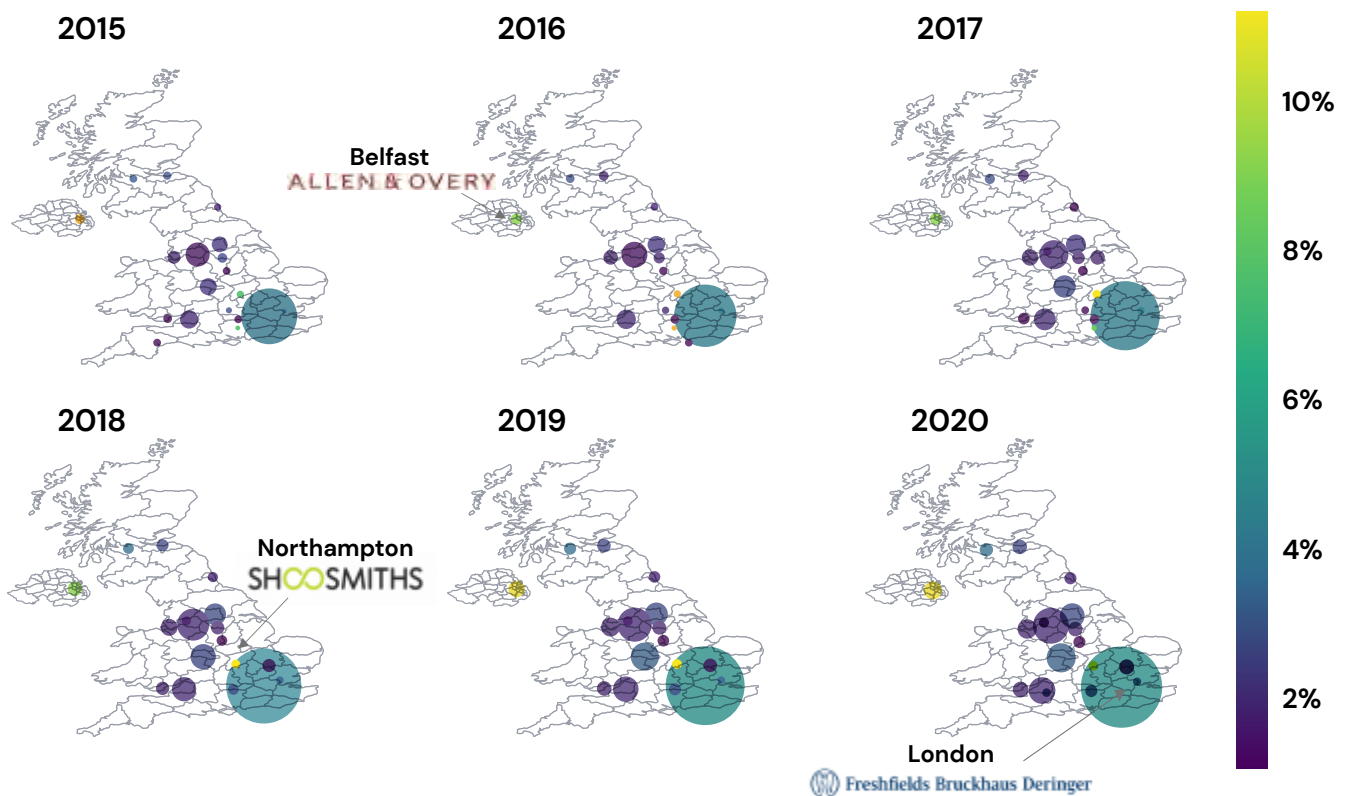
without lawtech skills   with lawtech skills

Source: Author's calculations of 2021 Burning Glass data for: United Kingdom (2007 SIC '69.10', '69.10/2', '69.10/9', '69.1', '69.10/1', Lawyer Jobs –SOC '2413.0', '2412.0', '3520.0', '2419.0')

Geographic distribution of job postings

Figure 3.8 shows the locations of firms with job postings, and how the locational distribution changes over time during 2015–2020. As is evident from the map of the British Isles over the years, London remains the location with the highest number of job postings (as indicated by the size of the bubble) and with a relatively high share of jobs with lawtech skills (colour-coded in green to yellow for high shares). After London, large bubbles – indicating the large absolute number of job postings in the legal sector – occur in cities such as Manchester, Birmingham, Bristol, Leeds, and Liverpool. Scottish cities of Edinburgh and Glasgow are also significant centres of legal sector jobs requiring lawtech skills. Lastly, Belfast is a notable location. The city has seen a rapid growth of legal job ads with lawtech skills – the bubble getting bigger and the colour shifting from yellow to green back to yellow – indicating that more than one in ten legal sector job ads (11.3% to be precise) in Belfast require lawtech skills, a proportion higher than in London (6.1%). The Belfast cluster, with nearshore centres of major law firms such as Allen & Overy and Herbert Smith Freehills, resulted from proactive regional policy.[13]

Figure 3.8: Geographic distribution of lawtech skills in the UK, 2015–2020

Size of the bubbles: number of job postings per city (top 20 cities by job postings)
Colour scale: share of jobs with lawtech skills

13 See promotion of legal technology and innovation by Invest Northern Ireland
https://www.investni.com/legal-technology-and-innovation (accessed 28 May 2021).

Figure 3.9: SRA-regulated legal sector: the top ten employers in England and Wales
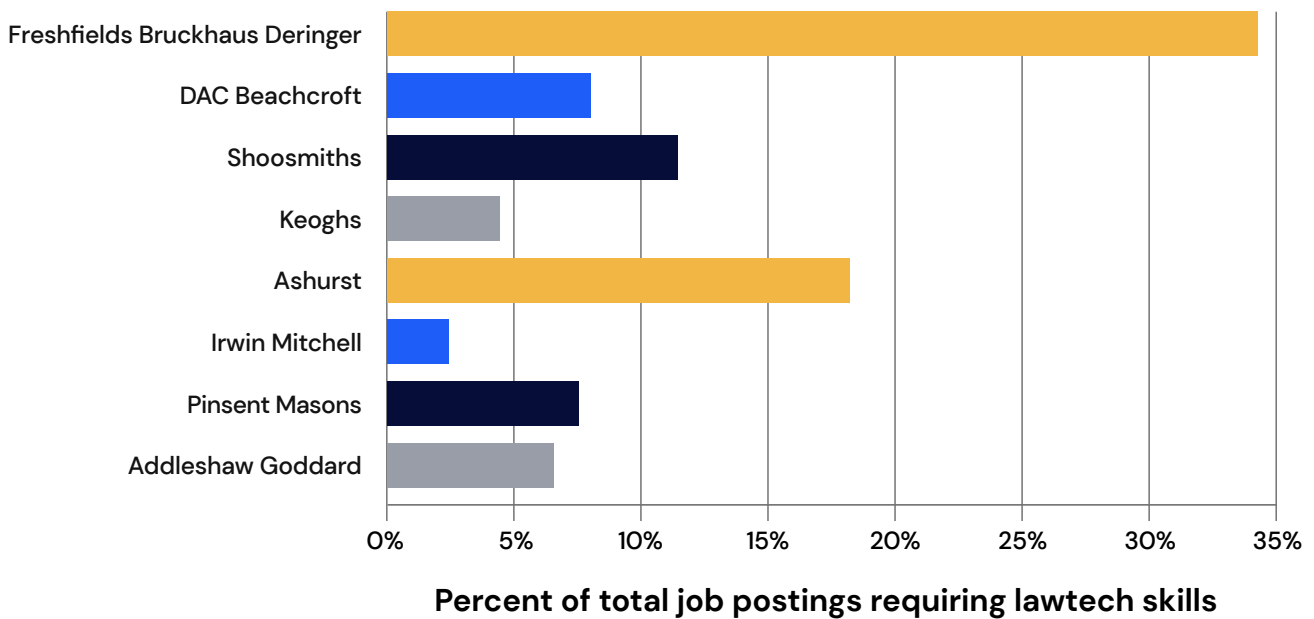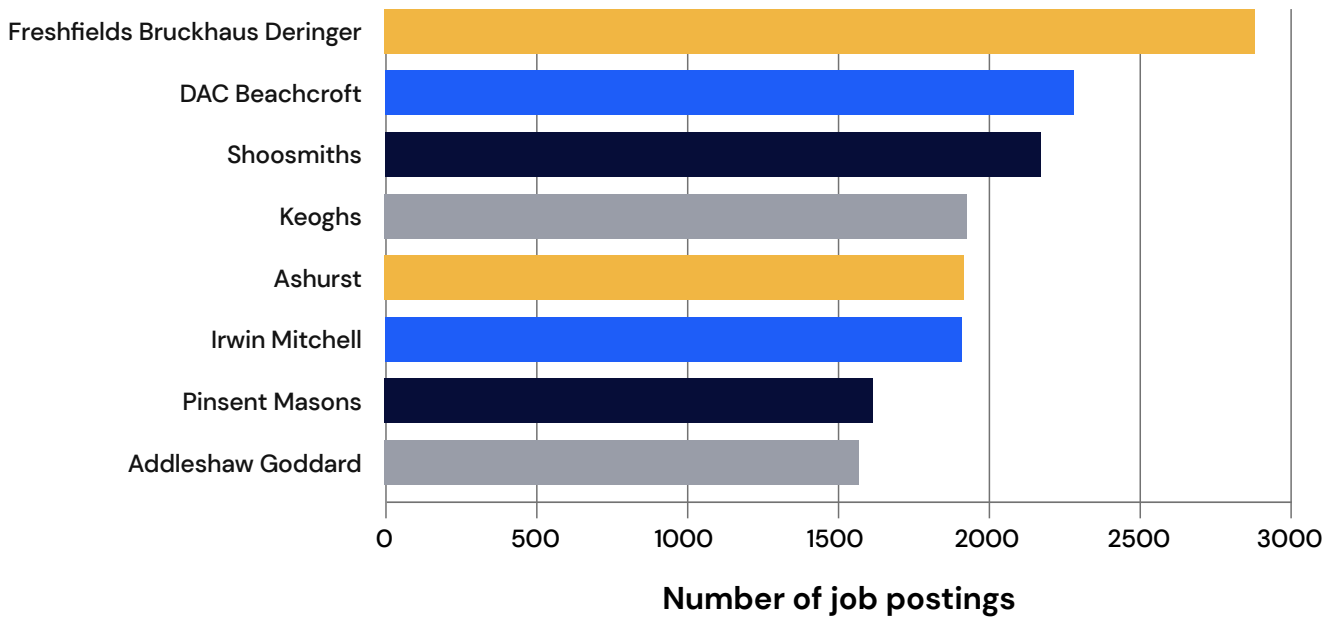
Number of job postings

Percent of total job postings requiring lawtech skills

SRA-regulated vs non-SRA legal sectors in the UK

We now turn to our central concern, namely the distinction between the SRA-regulated sector and the non-SRA legal sector. We classify job posting by firms regulated by the SRA as being in the SRA-regulated sector. We therefore include, in our analysis of the non-SRA legal sector, job postings by firms which are regulated by front-line regulators other than the SRA.[14]

First, we look at the top ten employers (ie those with the largest number of job postings over the entire 2014-2020 period) in the regulated sector (see Figure 3.9). This list is dominated by the top 50 law firms. The largest firm by both the total number of job postings and the share of lawtech job ads (ie job ads specifying lawtech skills) is Freshfields Bruckhaus Deringer, ranked sixth by revenue in The Lawyer's UK top 200 law firm list. The other nine are well-known law firms ranked in the top 50, namely DAC Beachcroft (26th), Shoosmiths (36th), the insurance-focused firm Keoghs (48th), Ashurst (12th), Irwin Mitchell (25th), Pinsent Masons (16th), and Addleshaw Goddard (23rd). [15] Among the top ten employers in the non-SRA legal sector – which include unregulated firms - are Grant Thornton, and legal recruitment agencies such as Errington Legal, RKRS, and Larbey Evans Ltd.

More job postings in the unregulated (non-SRA) sector, for both lawyers and non-lawyers

Next, throughout the period of analysis 2014-2020, there have been more job postings in the unregulated sector than in the regulated sector (see Figure 3.10). One might think that this is in part due to the fact that jobs for lawyers (ie solicitors, barriers, and judges) are less subject to online job postings than jobs for all others (which we label 'non-lawyers' to include paralegals, legal assistants, and non-legal employees).

However, focusing on job ads for lawyers only, comparing the dark blue line and the red line, the unregulated sector has had more lawyer job postings than the SRA-regulated sector, indicating a faster growth in employment in the unregulated than in the SRA-regulated sector. The unregulated sector growth outpacing the SRA-regulated sector growth is also evident if we look at non-lawyer jobs only, comparing the blue line and the yellow line; there have been at least three times as many non-legal job postings in the unregulated sector as in the SRA-regulated sector.

COVID-19 impact on jobs

A sharper fall in the number of job ads for non-lawyers during 2020 (blue and yellow lines in Figure 3.10) can only be attributed to the COVID-19 pandemic. As a consequence, the gap between the number of job ads for non-lawyers and that for lawyers narrowed considerably, presumably with a hiring freeze or furloughing of non-lawyers during the pandemic lockdown.

This narrowing of the gap is more sharply illustrated in Figure 3.11, which shows the shares of lawyer to non-lawyer job ads in proportionate terms. On the whole, lawyer job ads constitute around 20% of total job ads in the legal sector. The pandemic led to a higher proportion of lawyer to non-lawyer job postings in both SRA-regulated and unregulated sector, implying that, relative to non-lawyers, new hiring of lawyers continued during the pandemic. This trend was also more pronounced in the unregulated legal sector, which saw the proportion of lawyer job ads in the total listings rise to nearly 40%.

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14 At times, we use the term 'unregulated' as a shorthand for the sector that is not regulated by the SRA, in this subsection.
15 See https://www.thelawyer.com/top-200-uk-law-firms

Figure 3.10: Job ads in the SRA-regulated and unregulated sectors compared
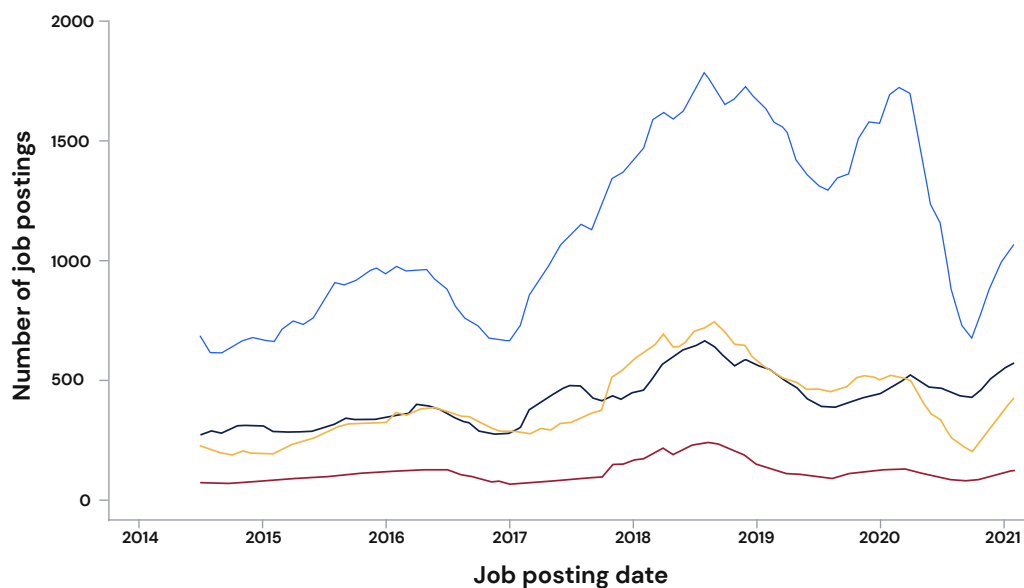
Key findings:

- In the UK, the unregulated legal service sector has more job ads than the regulated sector for both lawyers and non-lawyers

- Non-lawyers have a bigger share of job postings in both markets

- The pandemic decreased the difference in job postings between lawyers and non-lawyers

Legend:
- Non-lawyers, unregulated legal services market
- Non-lawyers, regulated legal services market
- Lawyers, unregulated legal services market
- Lawyers, regulated legal services market

Source: Author's calculations of 2021 Burning Glass data for: United Kingdom (2007 SIC '69.10', '69.10/2', '69.10/9', '69.1', '69.10/1', Lawyer Jobs –SOC '2413.0' (solicitors), '2412.0' (barristers and judges))

Note: The graph shows the number of monthly job postings by job type (6-month moving average).

Figure 3.11: Comparing lawyer vs non-lawyer job ads, in SRA-regulated and unregulated sectors in the UK
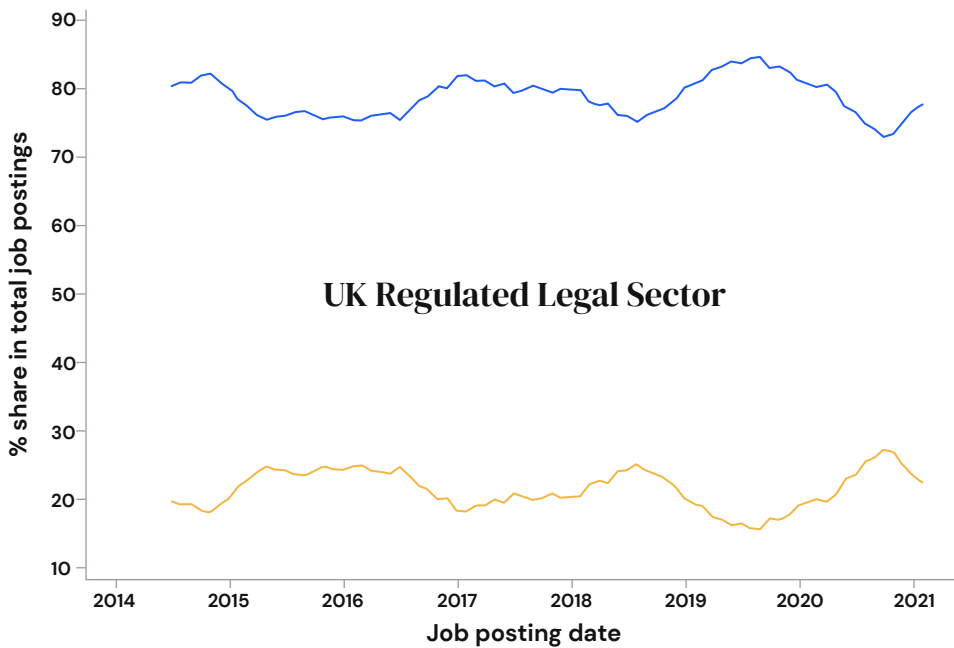
Key findings:

- In the regulated sector, in 2019 we see a big gap between the share of non-lawyer and lawyer jobs postings.

- In the unregulated sector, the gap starts widening in 2017.

- The pandemic decreased the difference in job postings between lawyers and non-lawyers, more so in the unregulated sector.

- In the unregulated sector, the pandemic decreased the difference further.

Job Type ■ Non-lawyers ■ Lawyers

Source: Author's calculations of 2021 Burning Glass data for: United Kingdom (2007 SIC '69.10', '69.10/2', '69.10/9', '69.1', '69.10/1', Lawyer Jobs –SOC '2413.0', '2412.0')
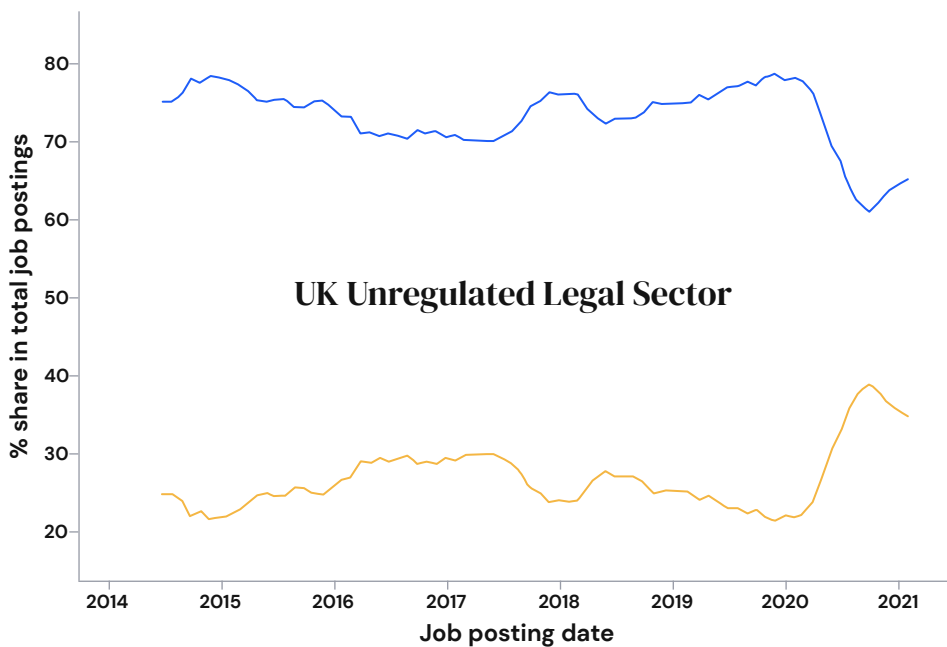
Job Type ■ Non-lawyers ■ Lawyers

Source: Author's calculations of 2021 Burning Glass data for: United Kingdom (2007 SIC '69.10', '69.10/2', '69.10/9', '69.1', '69.10/1', Lawyer Jobs –SOC '2413.0', '2412.0')

Note: The graphs show shares of monthly job postings by job type (6-month moving average).

Figure 3.12: Impact of COVID-19 on remote working in the UK

Remote working jobs for lawyers

(Y-axis: % share in total job postings; X-axis: Job posting date, 2014–2021)
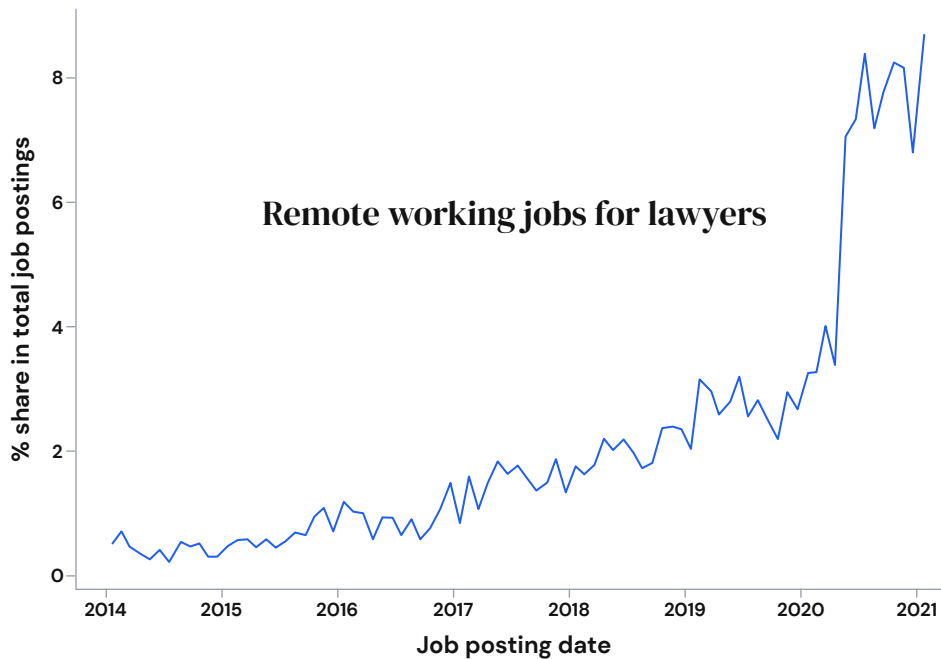
Key findings:

- For both lawyers and non-lawyers, job postings with remote working increased dramatically over 2020

- The share of job postings with remote working during 2020 are similar for lawyers and non-lawyers

- The gradual rise in remote working pre-dates the pandemic

Remote working jobs for non-lawyers

(Y-axis: % share in total job postings; X-axis: Job posting date, 2014–2021)
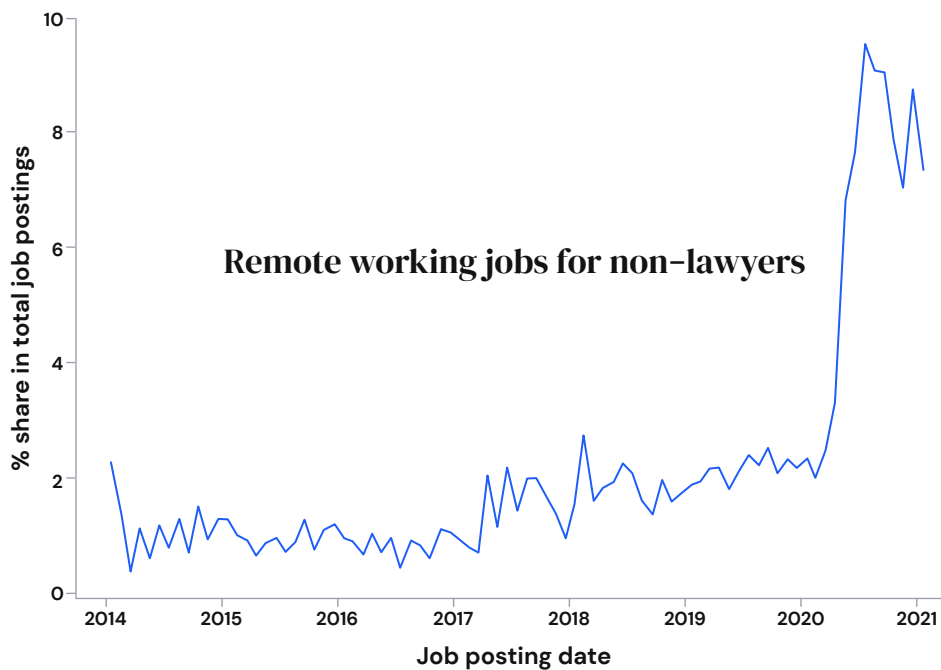
Note: We calculate 3-month moving averages from monthly job postings by job type.

Lawtech skills for lawyer and non-lawyer jobs

Focusing on the incidence of lawtech skills specified in job postings, lawyers (ie solicitors, barriers, and judges) have a low share of postings asking for lawtech skills throughout the 2014-2020 period – only 1-2% in both regulated and unregulated sectors. This low proportion remains, regardless of whether we look at just lawyers (defined to include solicitors, barristers and judges) (see Figure 3.13a) or at a broader category of legal professionals (that include lawyers as defined above, and other associated legal professionals and legal secretaries) (see

Figure 3.13b). By contrast, the percentage of non-lawyer job postings asking for lawtech skills is much higher, starting from 5%, facing an upward trend, albeit with fluctuations, to 15%. On average, the SRA-regulated and the non-SRA sectors have similar shares of jobs requiring lawtech skills for both lawyer and non-lawyer jobs. This fact, together with a similar ratio of around four non-lawyers to every lawyer in both sectors (see Figure 3.11), implies that, proportionately, the SRA-regulated sector has the same level of access to lawtech skills compared to the non-SRA sector.

Figure 3.13a: Comparing lawtech skills in lawyer vs non-lawyer job ads, in regulated and unregulated sectors in the UK

Lawyer jobs v non-lawyers jobs by month (6-month moving average).

Regulated sector

Unregulated sector

Key findings:

- In both sectors, lawyers have a low share of job postings requiring lawtech skills (around 1%-2%)

- The percentage of job postings requiring lawtech skills is much higher in non-lawyer jobs, in both sectors

- The regulated and unregulated sectors have similar shares of jobs requiring lawtech skills

- There is an upward trend in the percentage of non-lawyer job postings requiring lawtech skills (rising to 15%)

Job Type ▮ Non-lawyers ▮ Lawyers

Source: Author's calculations of 2021 Burning Glass data for: United Kingdom (2007 SIC '69.10', '69.10/2', '69.10/9', '69.1', '69.10/1', Lawyer Jobs –SOC '2413.0', '2412.0'))

# Figure 3.13b: Comparing lawtech skills in jobs for legal professionals vs non-lawyers, in regulated and unregulated sectors in the UK

Share of job postings requiring lawtech skills (6-month moving average).

Regulated sector

% share in total job postings (y-axis: 0, 2.5, 5, 7.5, 10, 12.5, 15, 17.5, 20)

Job posting date (x-axis: 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021)

Key findings:

- In both sectors, legal professionals have a low share of job postings asking for lawtech skills (around 1%–2%)

- The percentage of job postings asking for lawtech skills is much higher in non-lawyer jobs, in both sectors

- The regulated and unregulated sectors have similar shares of jobs asking for lawtech skills

Note: legal professionals include solicitors, barristers and judges, plus paralegals and legal secretaries.

Job Type

■ Non-lawyers ■ Legal professionals

Source: Author's calculations of 2021 Burning Glass data for: United Kingdom (2007 SIC '69.10', '69.10/2', '69.10/9', '69.1', '69.10/1', Lawyer Jobs –SOC '2413.0', '2412.0', '3520.0', '2419.0', '4212.0')

Share of job postings requiring lawtech skills (6-month moving average).

Unregulated sector

% share in total job postings (y-axis: 0, 2, 4, 6, 8, 10, 12, 14)

Job posting date (x-axis: 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021)
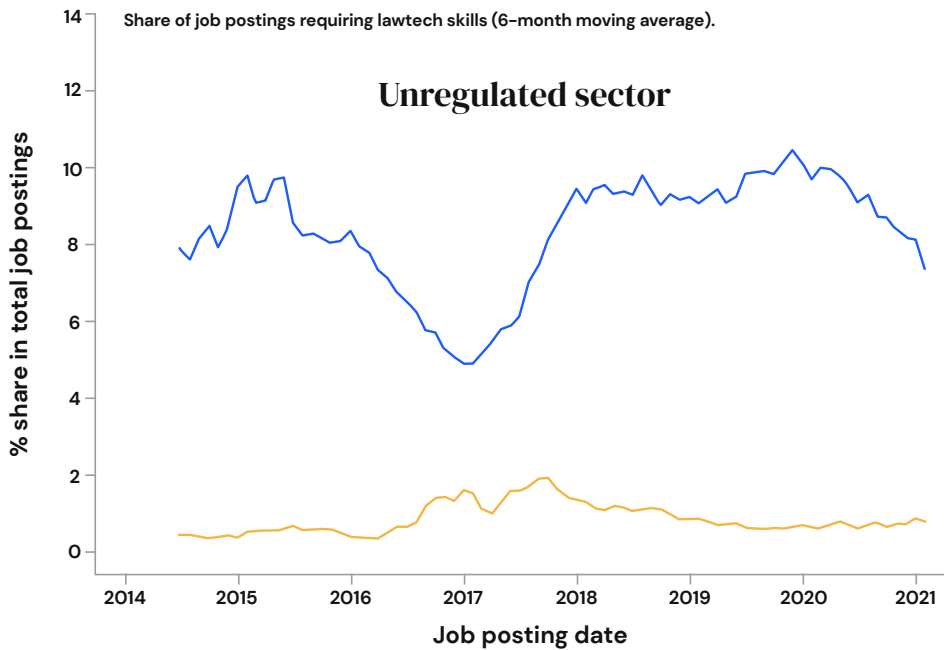
Comparisons with the United States

The Burning Glass database enables us to make comparisons between the UK and the US along a number of dimensions including geographic locations of job ads and types of occupation. Lawyers in the US are defined as those who are admitted to the bar, and therefore authorised to practice law. However, the US legal sector does not have the UK equivalent of a distinction between the SRA-regulated and unregulated sectors. We are also able to investigate whether or not lawtech skills command a salary premium in the UK and the US.

Geographic locations

The geographic distribution of job postings in the US legal sector is marked by legal services clusters in large cities such as New York City and Chicago (see Figure 3.14). Not surprisingly, San Francisco is marked with large bubbles (indicating large total numbers of job postings) and paler green colour (indicating a high share of lawtech skills in jobs). In terms of the share of legal sector jobs with lawtech skills, Minneapolis, which turns from green to yellow by 2017, has the highest concentration at 13.5%, followed by Baltimore (12.2%), Chicago (12.0%), Seattle (11.7%), Washington DC (11.6%), and Palo Alto (11.3%). These are locations with a good supply of technology skills, and are not necessarily large hubs of legal activity, except for Chicago and Washington DC.

More job postings for non-lawyers than lawyers

As in the UK, there are more job postings for non-lawyers than for lawyers (see Figure 3.15). In the US, there is also a distinct time trend, with an increase in the number of job postings since 2018. Non-lawyer job postings have seen a particularly strong growth, of course reversed by COVID-19 in 2020. But unlike in the UK, where non-lawyer jobs were hit harder than lawyer jobs, COVID-19 led to a decline in job postings for both lawyers and non-lawyers in a more even-handed manner.[16]

Figure 3.14: Locations of job postings with lawtech skills in the United States
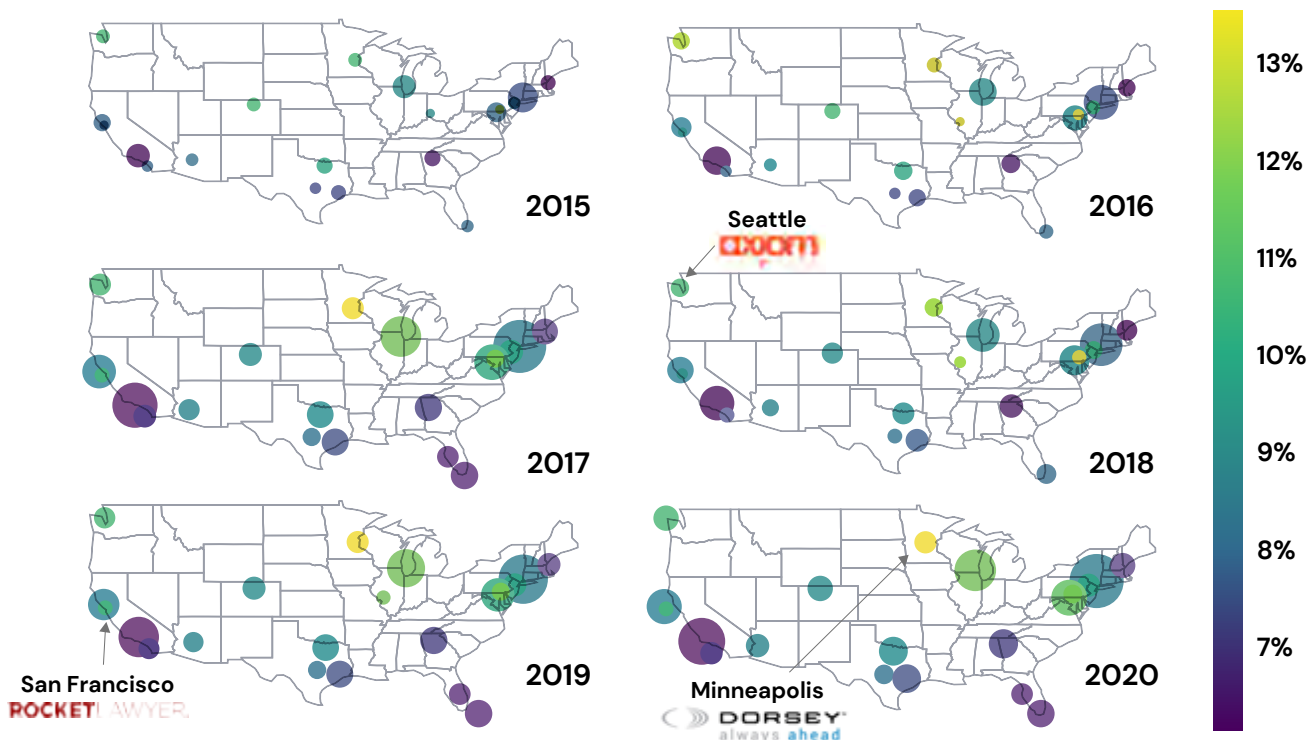
Note: Size of the bubbles: number of job postings per city (top 20 cities by job postings). Colour scale: share of jobs with lawtech skills.

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16 Burning Glass database does not collect data on remote working or working from home in the US.

Figure 3.15: Job postings for lawyers and non-lawyers in the US legal sector

Key findings:

- Total job postings in the legal sector start increasing in 2018

- Lawyers have a smaller share of job postings in the market

- The pandemic decreased job postings for both lawyers and non-lawyers

Job Type   ■ Non-lawyers   ■ Lawyers   **Source:** Author's calculations of 2021 Burning Glass data for: United States.

Note: The graph shows the number of monthly job postings by job type (6-month moving average).

Share of lawtech skills for lawyers and non-lawyers

In the US, the proportion of job postings specifying lawtech skills differs for different occupations, as in the UK. But the manner in which they differ varies from the UK. In the US, the proportion of job postings for lawyers (ie attorneys who are authorised to practice law) with lawtech skills is quite low – 2–3% (see Figure 3.16a) – not so different from the 1–2% in the UK (see Figure 3.13a). However, when we look at a broader category of legal professionals (ie lawyers as defined above, plus paralegals and legal assistants), the share of jobs with lawtech skills is considerably higher at around 5%, peaking to 8% in 2016 (see Figure 3.16b). This proportion was higher for legal professional jobs than for other jobs up until 2017. Thus, we can conclude that, until recently, US paralegals and legal assistants were asked to demonstrate lawtech skills at a level similar to others who had no legal expertise. This is in contrast to the UK, where paralegals and legal assistants were just as unlikely to be asked to demonstrate lawtech skills as lawyers (solicitors, barristers, and judges) (see Figure 3.16b).

Figure 3.16: Job posting with lawtech skills, for lawyers and non-lawyers in the US

3.16a: Using a narrow definition of 'lawyers'

Share of job postings requiring lawtech skills (6-month moving average)
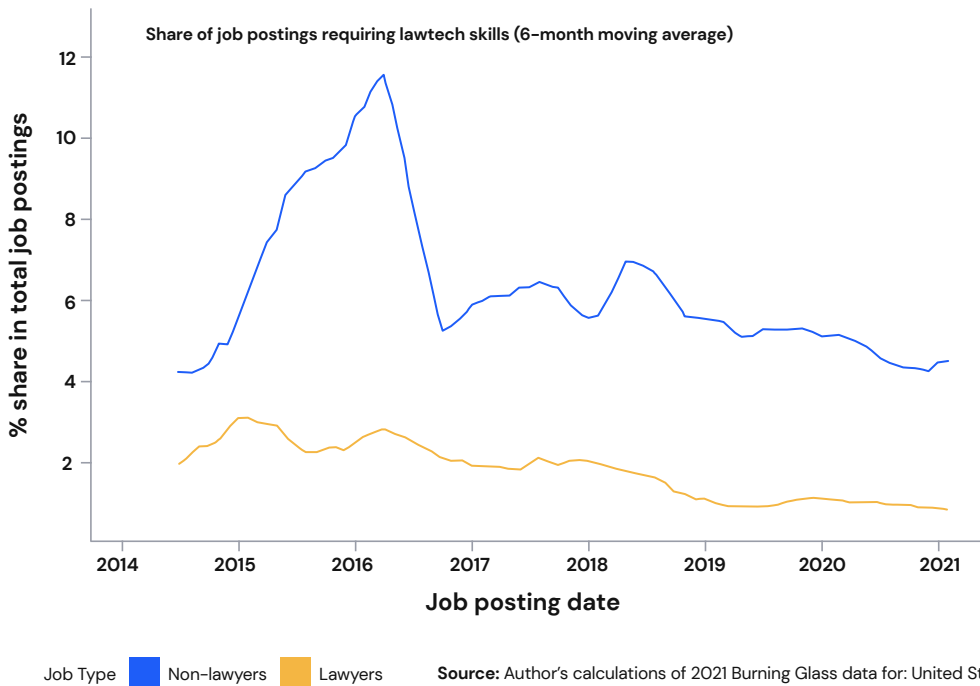
Key findings:

- Share of lawyer job ads with lawtech skills are somewhat higher – 2–3%, but not considerably higher than 1–2% in the UK

- Share of non-lawyer job ads with lawtech skills is also similar in the US and the UK – less than 10%, though with a downward trend in the US

Job Type ■ Non-lawyers ■ Lawyers   **Source:** Author's calculations of 2021 Burning Glass data for: United States.

3.16b: Using a broader definition of 'legal professionals'

Share of job postings requiring lawtech skills (6-month moving average).
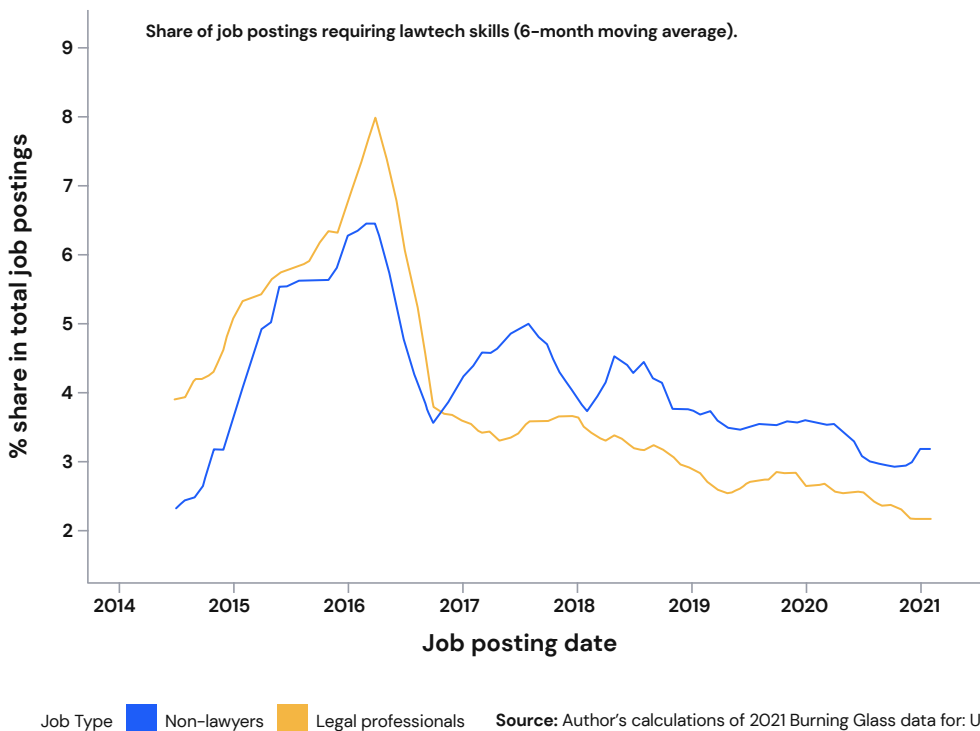
Key findings:

- Share of job ads for legal professionals with lawtech skills are considerably higher than in the UK – up to 8% in 2016

- The share of job ads with lawtech skills is lower for legal professionals than for non-lawyers since 2017. Before 2017 it was the opposite

Job Type ■ Non-lawyers ■ Legal professionals   **Source:** Author's calculations of 2021 Burning Glass data for: United States.

Comparing pay premia for lawtech skills

The last UK–US comparison is over the question of whether or not lawtech skills command a pay premium. We address this question by examining legal job postings by occupational classification and by job title.

In the UK, legal professionals, as defined by standard occupations categories (SOC), command pay premia for jobs requiring lawtech skills compared to those that do not, except for legal professionals not elsewhere classified (see Figure 3.17). In particular, solicitors with lawtech skills would be paid £55,031 on average compared to £48,891 for solicitors without lawtech skills: a pay premium of 12.6%.

Pay premia exist by job title also. The largest premium for lawtech skills – £5,546 on average – is for paralegals; they are paid 25% more for having lawtech skills compared to if 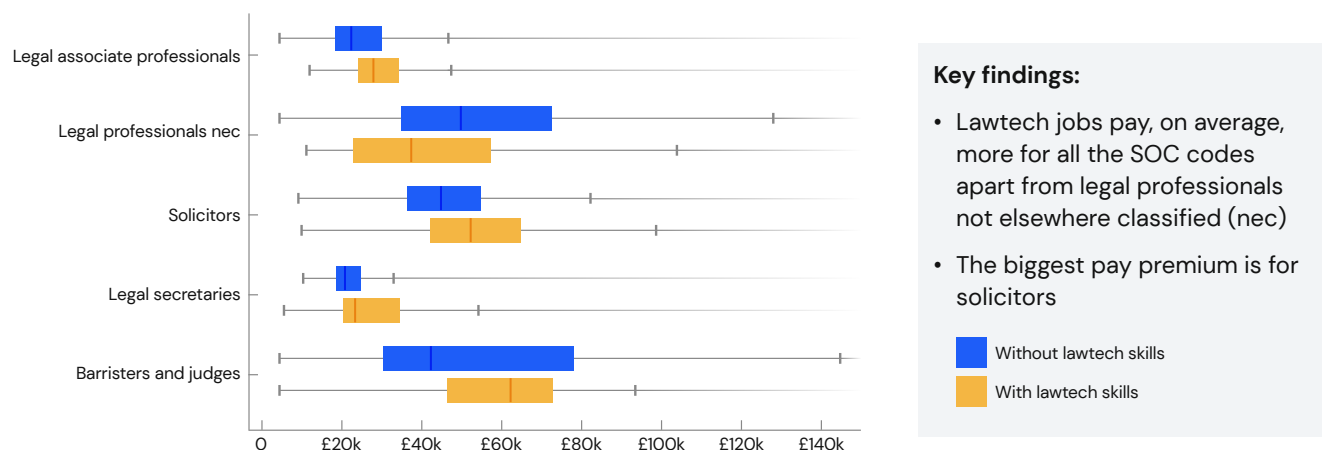they applied for paralegal jobs without lawtech skills. This pattern indicates that in the UK legal sector, lawyers and other legal professionals are valued and rewarded for their knowledge of digital technology or data science.

The pattern is somewhat different in the US. As shown in Figure 3.18a, jobs requiring lawtech skills pay more on average than jobs not requiring lawtech skills, but this is not the case for lawyers and legal support workers. Using the O*NET occupational category, US lawyers with lawtech skills are paid $81,608 on average, compared to $101,172 for lawyers without lawtech skills, which amounts to a negative premium of $19,564.

Using job titles, attorneys with lawtech skills are paid $2,405 less on average than attorneys without lawtech skills. Similarly, litigation attorneys with lawtech skills are paid $10,155 less on average than litigation attorneys without lawtech skills. Further investigation is warranted in order to understand the reasons for this pattern. But one possible explanation may lie in tight professional control by the bar, which discounts lawtech skills as not being fully part of the professional knowledge base in the US. This empirical puzzle also sits alongside a rise in some law schools offering courses in data science, and a high level of venture capital investment into lawtech startups in the US (see Chapter 6).

Figure 3.17a: Pay premia for lawtech skills in the UK legal sector by occupation

Key findings:

- Lawtech jobs pay, on average, more for all the SOC codes apart from legal professionals not elsewhere classified (nec)

- The biggest pay premium is for solicitors

■ Without lawtech skills
■ With lawtech skills

SOC Code	Lawtech sample (n)	Normal sample (n)	Mean Lawtech	Mean non-Lawtech	Difference
Legal associate professionals	1,406	69,421	£30,092	£25,866	£34,225
Legal professionals nec	216	21,938	£42,455	£55,149	−£12,694
Solicitors	2,017	235,156	£55,031	£48,891	£6,140
Legal secretaries	100	21,906	£27,593	£23,183	£4,410
Barristers and judges	21	53	£58,469	£55,588	£2,882

Source: Author's calculations of 2021 Burning Glass data for: United Kingdom (2007 SIC '69.10', '69.10/2', '69.10/9', '69.1', '69.10/1')

Figure 3.17b: Pay premia for lawtech skills for UK legal sector by job title
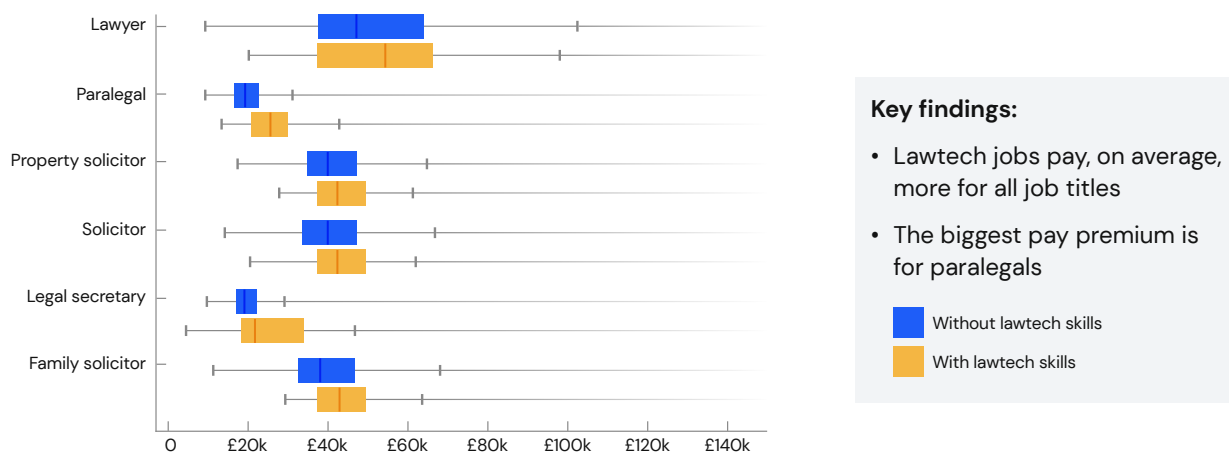
Key findings:

- Lawtech jobs pay, on average, more for all job titles

- The biggest pay premium is for paralegals

■ Without lawtech skills
■ With lawtech skills

Job Title	Lawtech sample (n)	Normal sample (n)	Mean Lawtech	Mean non-Lawtech	Difference
Lawyer	91	15,900	£15,900	£56,218	£1,631
Paralegals	178	15,006	£27,825	£22,279	£5,546
Property solicitor	67	22,126	£49,544	£44,806	£4,738
Solicitor	172	19,192	£45,394	£44,225	£1,169
Legal secretary	67	19,712	£27,005	£22,449	£4,556
Family solicitor	134	12,181	£48,410	£43,112	£5,298

Source: Author's calculations of 2021 Burning Glass data for: United Kingdom (2007 SIC '69.10', '69.10/2', '69.10/9', '69.1', '69.10/1')
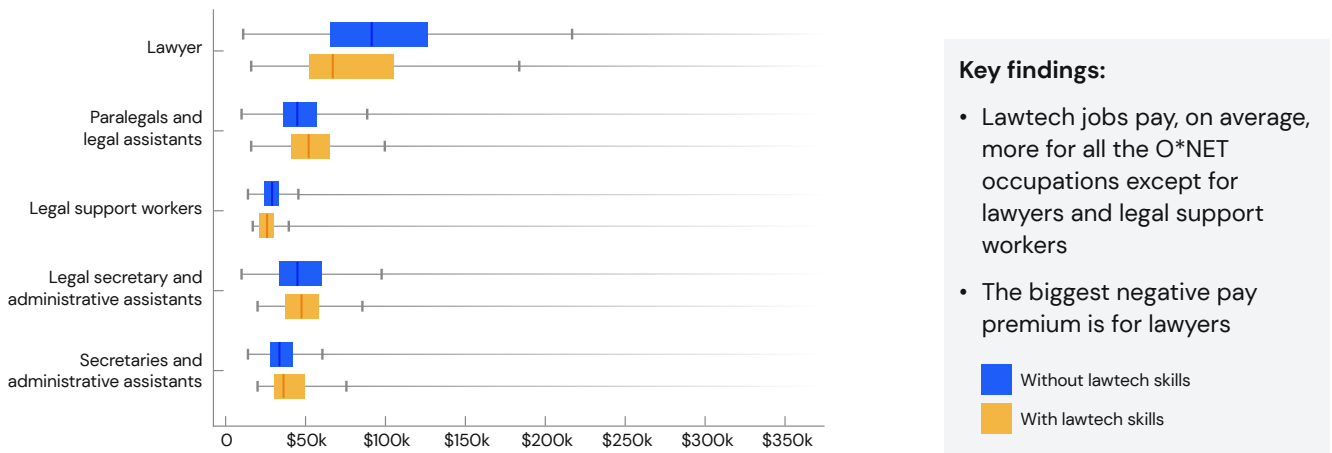
Figure 3.18a: Pay premia for lawtech skill in the US legal sector by occupation
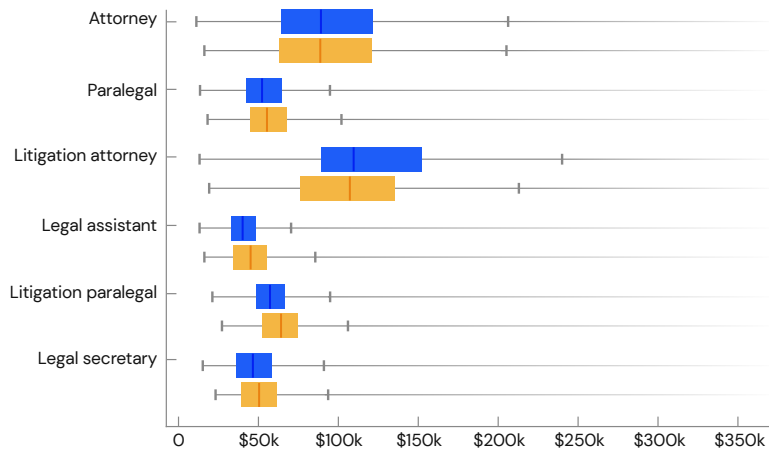

Key findings:

- Lawtech jobs pay, on average, more for all the O*NET occupations except for lawyers and legal support workers

- The biggest negative pay premium is for lawyers

■ Without lawtech skills
■ With lawtech skills

O*NET Occupation	Lawtech sample (n)	Normal sample (n)	Mean Lawtech	Mean non-Lawtech	Difference
Lawyers	3,672	41,767	$81,608	$101,172	$19,564
Paralegals and legal assistants	5,613	87,897	$54,578	$48,492	$6,085
Legal support workers	186	7,380	$28,497	$30,436	$1,939
Legal secretaries and administrative assistants	777	13,499	$48,550	$48,203	$347
Secretaries and administrative assistants	342	7,868	$42,972	$37,751	$5,221

■ No Lawtech Skills   ■ Lawtech Skills   **Source:** Author's calculations of 2021 Burning Glass data for: United States

Figure 3.18b: Pay premia for lawtech skills in the US legal sector by job title

Key findings:

- Lawtech jobs pay, on average, more for all the job titles apart from for attorney and litigation attorney

- Lawtechskills lead to lower pay for litigation attorneys

■ Without lawtech skills
■ With lawtech skills

| Job Title	Lawtech sample (n)	Normal sample (n)	Mean Lawtech	Mean non-Lawtech	Difference
Attorney	22,669	1,403	$89,405	$91,810	$2,405
Paralegal	28,159	2,584	$54,691	$51,612	$3,079
Litigation attorney	2,157	86	$102,538	$112,693	$10,155
Legal assistant	27,315	851	$43,615	$40,411	$3,204
Litigation paralegal	9,061	791	$60,892	$55,790	$5,102
Legal secretary	10,917	567	$48,391	$46,512	$1,879

Source: Author's calculations of 2021 Burning Glass data for: United States

Comparing job postings by ABS and non–ABS firms within the SRA–regulated sector

Lastly, we return to querying what is different about ABSs as compared to non–ABSs. We are able to address a number of questions using the Burning Glass database. First, where are job postings by the SRA–licensed ABS firms located in England and Wales? We show in Figure 3.19 that, judging from job postings, the location of ABSs have not changed much over time, comparing the two time periods 2012–15 and 2016–20. The wide geographic spread is a healthy sign of the availability of job opportunities in the legal sector across the country. Assuming that locations of job opportunities are correlated with locations of service delivery, ABSs appear not to have contributed as much to consolidation of the legal services market.[17] While consolidation brings benefits, it could also cause detriment to consumers wanting highly localised provision.

Figure 3.19: Locations of ABSs with online job postings in England and Wales over time

2012 – 2015

2016 – 2020
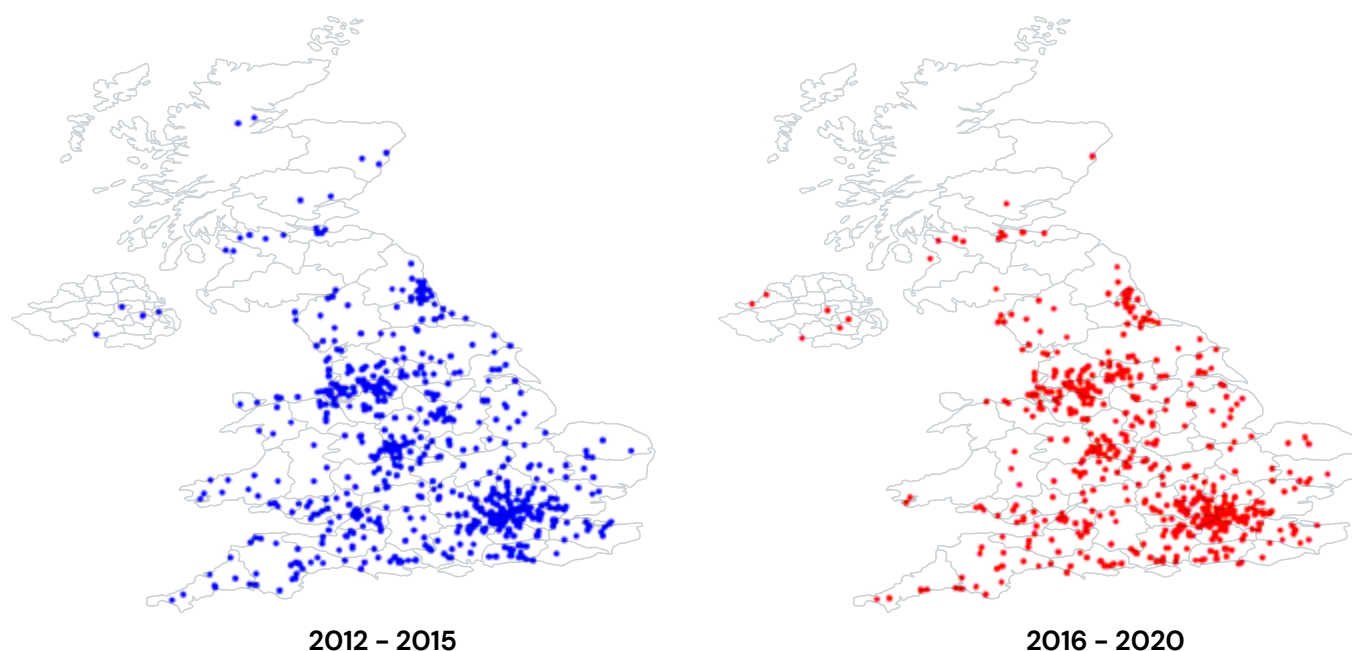
Note: There are some job postings by ABSs occurring in Scotland and Northern Ireland where ABS regulation does not exist. It is possible that this is due in part to remote working and related reasons.

Second, do ABSs have a greater proportion of non–lawyer job ads to total job ads than non–ABS firms? The answer is a resounding yes. Throughout the period of investigation (2014–20) using the Burning Glass data, ABS firms have, on average 58% of total job postings for non–lawyers, nearly twice as high as for SRA–regulated non–ABS firms. This result is expected, given that one of the primary reasons for establishing ABSs is to access non–legal talent.

Third, do ABS firms have more job ads with lawtech skills than non–ABS firms? The answer to this question is also yes. The proportion of job postings with lawtech skills has been quite low across all firms. But, within this low base, ABS firms are more than twice as likely to specify lawtech skills for non–lawyer jobs – at 7.2% of all non–lawyer job ads – as non–ABS firms, at 3.1% of all non–lawyer job ads. This is another indication of greater innovativeness among ABSs.

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17 See for evidence on consolidation SRA (2014) Magnetic forces: Consolidation in the legal services market.

Lastly, do ABS firms pay a higher pay premium on average than non-ABS firms? Pay levels are on average lower at ABS firms than at non-ABS firms, and the pay premium for lawtech skills for non-lawyer jobs is just over £5,000 at both ABS and non-ABS firms. Thus, proportionately, lawtech skill premia are higher on average at non-ABS firms – 18% – than at non-ABS firms – 12%. The average

salary for lawyers without lawtech skills is also lower at ABS firms (£32,838) than at non-ABS firms (£43,111). While non-ABS firms pay a small premium of £267 for lawtech skills, ABS firms actually pay £490 less for jobs with lawtech skills. This underpins the personnel principle that ABS firms rely on non-lawyers to source lawtech skills.

Section summary

The Burning Glass database analysis has its limitations. In particular, it allows us to look only at digital job ads without a full picture. We have no information on vacancies filled without digital advertising or without advertising at all. Moreover, there is no way to ascertain what proportion of the job postings actually lead to successful hiring. Notwithstanding these limitations, the analysis of the large-scale database for the 2014-20 period reveals the following patterns.

The SRA-regulated sector in the UK, as compared to the non-SRA sector:

• Is growing more slowly, at around a third of the pace, judging from the number of job postings for both lawyers and non-lawyers throughout the 2014-2021 period

• Has a similarly low proportion (1-2%) of lawyer jobs with lawtech skills

• Has a similarly higher proportion (5-15%) of non-lawyer job postings requiring lawtech skills.

Thus, one important finding from the Burning Glass database analysis is that proportionately, access to lawtech skills via lawyers or non-lawyers seems to be not all that different in the SRA-regulated sector compared to the legal sector not regulated by the SRA. Rather, it is the faster growth in employment in the non-SRA sector that enables this sector to better access lawtech skills compared to the SRA sector.

In other words, the lawtech skills share of the pie is the same in the SRA and non-SRA sectors, but the pie is getting bigger in the non-SRA sector relative to the SRA sector.

Within the SRA-regulated sector, ABS firms, as compared to non-ABS firms:

• Employ more non-lawyers relative to lawyers, judging from the number of job postings

• Have a greater proportion of non-lawyer job ads with lawtech skills

• Do not pay a higher premium for lawtech skills for lawyers.

These jobs aspects of ABSs provide a good explanation for the survey results – our online survey and prior studies – that ABSs are deemed to be more innovative and more likely to adopt legal technology. We will draw implications for what this means for the training and education of trainee solicitors and other associated professionals in Chapter 6.

Given that the legal sector which is not regulated by the SRA is growing around three times faster in terms of job postings than the SRA-regulated sector, it seems sensible to develop a better understanding of the unregulated sector.

Understanding the unregulated sector

Thus far, we treated the sector that is not regulated by the SRA as 'unregulated' to facilitate our analysis of the Burning Glass database. Obviously, this is not a wholly satisfactory approach.

For the overall purpose of this research, our starting point is the Legal Services Act (LSA) 2007, which provides an overarching framework for classifying providers of legal services into three categories:

- Those authorised and regulated by an approved regulator under the Act to provide legal activities.[18]

- Those that conduct specific legal activities that attract other forms of regulation such as immigration, insolvency and claims management.

- Those that provide legal activities outside of any form of legal services regulation.

Thus, a clear way of segmenting the legal services market already exists owing to the LSA, with a distinction between the LSA-regulated sector and the non-LSA unregulated sector. However, there are at least three reasons why we think that improvements are necessary to understand, or map, the unregulated sector. These reasons derive from demand characteristics, the supply of digital technology and data, and the nature of law and regulation.

First, before we can develop an understanding of the shape of the unregulated market, we need to define what is the scope of the market. But scoping is not an easy matter owing to the nature of demand. Consumers wish to access advice and services to resolve specific problems, and these problems tend to have a legal component and a non-legal component. Consequently, providers of integrated solutions for clients may straddle the legal sector and other sectors such as accounting, financial services, employment advice, and other types of advisory services. For financial services, there is a regulator in the form of the Financial Conduct Authority (FCA), but other services (e.g.

human resource consultancy) would not have a sector-specific regulator. Thus, the alternative legal services market consists of providers that give housing advice (e.g. charities and local authority housing departments), employment advice (a HR company, trade union or insurance company), advice on house sales/purchase (by estate agents), insolvency advice, debt management, advice on funeral planning linked to will writing and probate matters, and advice on a diverse range of areas including health and social care, immigration, and asylum, which are given by the Citizens Advice Bureau or by law students in university law clinics.[19] Providers therefore straddle the legal services market by giving legal and non-legal advice.

Second, focusing on the supply of digital technology: technology more often than not is industry agnostic, with cross-sector use cases. Some technology suppliers provide an infrastructure such as cloud storage, cloud computing services such as Amazon Web Services (AWS) and Microsoft Azure, and standard software packages such as Microsoft Office.

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18 The approved regulators include the Solicitors Regulation Authority, Bar Standards Board, Chartered Legal Executives (Cilex), Intellectual Property Board, Costs Lawyers Standards Board, Master of the Faculties, and the Institute of Chartered Accountants in England and Wales.
19 Solicitors Regulation Authority (2019) The Changing Legal Services Market.

Others provide software tools for customer relationship management (CRM) or for document analytics that have use cases in legal and non-legal sectors. Yet others provide platforms that enable matching demand and supply of lawyers, paralegals, and other personnel. Thus, many technology and data providers do not respect the boundary of the legal services sector. Our approach to mapping the unregulated sector is to be cognizant of these 'bridge providers' that straddle market boundaries, whether they are defined by demand or supply.

Third, we need to make explicit the distinction between general law and sector-specific regulation. Of course, all businesses have always been subject to compliance with relevant legislation including consumer law, data protection, and anti-money laundering. However, with the advent of digital technology, including artificial intelligence (AI), the salience of such general law has increased owing to privacy concerns in handling personal data, and the ethics of applying AI.

In order to take account of the above concerns, we suggest a way to consider mapping the unregulated sector with the following layers of law and regulation in mind. Figure 3.20 illustrates this mode of thinking and is not intended to be exhaustive. Our starting point is the top right in the diagram, with the LSA-regulated legal sector. The unregulated legal sector (ie not regulated by the LSA via one of the approved regulators) would include a variety of providers, including but not limited to:

• **Providers of services that include a legal advisory component**, such as housing advice, employment advice, advice on house sales/ purchase, insolvency advice, debt management, financial and tax advice, advice on funeral planning linked to will writing and probate matters, health and social care, immigration, and asylum.

• **Providers of digital technology with a legal client base**, some of which specialise in serving the legal sector (providing legal project management tools, legal matter management

tools, legal contract analytics tools, or platforms for on-demand lawyers and paralegals), and others that serve clients in the legal sector and beyond (providing contract analytics for financial and legal sectors, tools for electronic agreements including e-signature, customer relationship management software, cloud computing services, etc.).

Some providers may use digital technology to deliver services, thus creating an overlap between the two types of provider explained above. Many of them are young ventures, founded in the last decade by entrepreneurs who may be licensed lawyers, technologists, or with other expertise. Chapter 5 maps out the size and shape of this unregulated sector of lawtech startups in the UK and the US.

From the perspective of LSA-approved regulators such as the Solicitors Regulation Authority, the unregulated sector takes on a slightly different meaning once law and regulation beyond the Legal Services Act 2007 are taken into account.

The top row in Figure 3.20 focuses on sector-based regulation. At this level, the unregulated sector is the sector that is not subject to sector-specific regulation. Thus, if an unregulated service provider (ie not licensed by an LSA-approved regulator) is regulated, for instance, by the Financial Conduct Authority, the unregulated sector shrinks to exclude such a provider.

The second row in the Figure focuses on general law on specific issues, including but not limited to data protection, competition policy, consumer protection, and anti-money laundering. General law is embedded in aspects of LSA-approved regulators' regulatory guidance and compliance rules. Moreover, the LSA regulators are subject to carrying out the remit of reviews by the national issue-based regulators, as is the case with the Competition and Markets Authority (CMA)'s review of legal services.[20] To the extent that providers in the unregulated sector are subject to compliance in general law, it reduces the likelihood of unregulated providers causing consumer harm or other detriment.

20 Competition and Markets Authority (2020) Review of the Legal Services Study in England and Wales, December.

The third row on standard setting, with the British Standards Institution (BSI), Britain's national standard-setting body, is relevant to the unregulated sector to the extent that its technical standards and certification enhance consumers' information and trust in products and services. If consumer harm is a potential worry in the unregulated legal sector, BSI could play a role in enhancing both competition and consumer protection.

Another government action that enhances standard-setting and, consequently, technology adoption by legal service providers, takes the form of government-initiated portals. A notable example is the Official Injury Claims portal (a service operated on behalf of the Ministry of Justice), which enables citizens to claim for personal injury arising from road accidents free without legal help. Thus, technology standards from within the private sector, with providers of technology infrastructure (such as cloud computing services) and data providers taking a lead, are complemented by government standard-setting.

Chapter 6 returns to considering implications for regulation and policy to be applied to the unregulated sector, after an investigation of providers of unmet legal needs (in Chapter 4) and of lawtech startups (in Chapter 5).

Figure 3.20: Layers of law, regulation, and standards

Regulations

Sector-Specific Regulation	Non-Legal Sector Regulated, eg. Financial Conduct Authority (FCA)	Unregulated Sector Not subject to sector-specific regulation	Legal Sector Legal Services Act 2007 regulated, eg. Solicitors Regulation Authority (SRA)

Specific Laws

Anti-Money Laundering eg. Proceeds of Crime Act 2002 by Serious Fraud Office (SFO)	Consumer Protection eg. Consumer Rights Act by Trading Standards Service (TSS)	Competition Policy eg. Competition Act 1998, Enterprise Act 2002 by Competition & Markets Authority (CMA)	Data Protection eg. Data Protection Act 2018, General Data Protection Regulation (GDPR) by Information Commissioner's Office (ICO)

Standard Setting

British Standard Institution (BSI)	Government services (eg. portals and public data)	Technology infrastructure (eg. cloud storage and computing)	Data owners and providers

Appendix to Chapter 3

About Burning Glass Technologies database

Burning Glass Technologies, an analytics software company, scrapes job postings from the internet. Every day, the firm checks a corpus of more than 40,000 online job boards and company webpages to find new job vacancies. Burning Glass then parses and deduplicates the job vacancies into a machine-readable form. This process extracts up to 70 standardised fields from vacancies, including occupation, geography, skill requirement, firm identifier and salaries.

The broad coverage of the database represents a significant improvement over single source databases, such as Reed.co.uk or the Labour Force Survey. But a notable shortcoming is the exclusion of non-online vacancies, and the share of jobs advertised online changes over time, with the corpus of job boards and company webpages that the firm collects data from also varying over time. Notwithstanding such shortcomings, we are able to count the number of online job vacancies advertised since 2010 in the United States and since 2012 in the United Kingdom for legal occupations and the legal sector.

Methodology for extracting job postings in the legal sector and legal occupations

We extracted nearly 900,000 job ads in the legal sector in the UK and a similar number in the US during 2014–2020. This method relies on both industry classifications and occupational classifications.

In the UK, with respect to industry, we filtered for the relevant Standard Industry Classification (SIC) Code 69.1 (legal activities sector). The following Standard Occupational Classification (SOC) codes are included:

- Code 69101: Barristers at law
- Code 69102: Solicitors
- Code 69109: Activities of patent and copyright agents; other legal activities nec

With respect to occupations, the following Standard Occupational Codes (SOC) are included for classifying lawyers:

- SOC 2413: Solicitors
- SOC 2412: Barrister and judges

There are other legal and non-lawyer occupations within the SIC 69.1 industry sector, as shown below.

Job Postings by Year		
Year	Count of job postings	% of total
2014	104,456	12%
2015	131,598	15%
2016	121,780	14%
2017	139,523	16%
2018	156,068	18%
2019	123,568	14%
2020	114,637	13%
Total	**891,630**	**100%**

Job Postings by SOC Code		
SOC Code Job	Count of job postings	% of total
Solicitors, Barristers and Judges	426,267	48%
Legal Associate Professionals	117,983	13%
Legal Professionals nec	42,579	5%
Legal Secretaries	34,693	4%
Other Administrative Occupations	12,445	1%
Others	257,663	29%
Total	**891,630**	**100%**

Note: Lawyers = solicitors, barristers and judges; non-lawyers = all other SOC categories

For the US, with respect to industry, we filtered for the relevant North American Industry Classifications (NAICS) Codes:

- Code 5411: Legal Services
- Code 541110: Offices of Lawyers
- Code 541199: Other Legal Services
- Code 541191: Title Abstract and Settlement Offices

With respect to occupations, we use the following O*NET codes to determine lawyers:

- Code 231011: Lawyers
- Code 231023: Judges

There are other legal and non-legal professionals in the legal sector as follows.

Job Postings by Year		
Year	Count of job postings	% of total
2014	120,011	15%
2015	96,988	12%
2016	87,567	11%
2017	73,259	9%
2018	110,010	14%
2019	150,231	19%
2020	151,204	19%
Total	789,270	100%

Job Postings by O*NET Code		
O*NET Code Job	Count of job postings	% of total
Lawyers and Judges	244,884	31%
Paralegals and Legal Assistants	229,306	29%
Legal Secretaries	39,800	5%
Secretaries and Admin. Assistants	17,407	2%
Receptionist and Information Clerk	13,763	2%
Others	244,110	31%
Total	789,270	100%

Note: Lawyers = lawyers and judges; non-lawyers = all other O*NET categories.

List of key words used to classify lawtech skills in job ads

We identify lawtech skills in job posting by searching the job ad text for key words which indicate digital skills. The full list of words used is provided below.

"artificial intelligence" "AI" "machine learning" "deep learning" "data science" "data scientist" "accountant engineer" "accountancy engineering" "accountancy tech" "accountancytech" "natural language processing" "NLP" "semantic analysis" "decision tree" "document analysis" "document review" "contract intelligence" "case prediction" "neural networks" "neural nets" "full stack" "developer" "automate" "API" "data architecture" "micro-services architecture" "technology stack" "DevOps" "Net Core" "Docker" "Kubernetes" "Azure Cloud" "Chef" "Java" "Python" "Angular" "coding" "testing" "deployment" "Agile Kanban" "RESTful API" "SOA" ".NET" "JavaScript" "C#" "SQL" "continuous integration" "test automation" "automated configuration" "relational database" "non-relational database" "SOAP" "REST" "software design" "data extraction" "data visualisation" "data visualization" "workflow" "rules based analysis" "Margin Matrix" "technology" "technologies" "tech" "material efficiencies" "document management system" "3E" "Epic" "Peoplesoft" "data mining" "data modelling" "artificial intelligence technologies" "data collection plan" "structured data" "structured sources" "unstructured data" "unstructured sources" "data exploration" "hypothesis testing" "statistical modelling" "data analysis" "POCs" "data cleaning" "statistical analysis" "algorithm" "algorithms" "algorithm development" "tableau" "SAS" "big data" "sql server reporting services (ssrs)" "data warehousing" "teradata dba" "transact-sql" "microsoft sql server integration services (ssis)" "microsoft sql" "microsoft c#" ".net" "asp.net" "asp.net mvc" "active server pages (asp)" "statistical analysis" "statistics" "statistical reporting" "microsoft powershell" "data verification" "relational databases" "software engineering" "software development" "system design" "hypertext preprocessor (php)" "sap" "web application development" "nunit" "kanban" "scrum" "c++" "linux" "sql server" "hardware and software installation" "enterprise resource planning (erp)" "cognos impromptu" "microsoft sharepoint" "visual studio" "microsoft active directory" "data manipulation" "data management" "data quality" "metadata" "database design" "data collection" "extensible markup language (xml)" "object-oriented analysis and design (ooad)".

Unmet Legal Needs and Risks: Providers' Perspectives

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Chapter Summary
Appendix to Chapter 4

In this chapter, we discuss three main topics, all from the perspective of legal service providers operating in England and Wales.

- First, we explore whether innovation and technology usage might reduce incidences of what is known as 'unmet legal need' (ULN). While we will highlight examples of innovation and technology deployments from across the PeopleLaw space, we will also include a short case history for one legal specialism where unmet need is particularly commonplace - employment law.

- Second, we explore actual (or perceived) regulatory and other barriers that may hinder the ability of SRA-regulated legal service providers to deploy new technology or innovative practices.

- Third, and moving away from our ULN focus, we investigate the risks associated with innovation and legal technology deployments. Here, we pay particular attention to the risks associated with legaltech supplier failure, including when a legal technology supplier ceases trading.

Our insights from this chapter come from three main sources: 32 interviews, each one hour long, with English and Welsh-based legal practices, most of which are SRA regulated and are regarded as being innovative by the legal trade press; our online survey findings (see Chapter 2); and prior research on ULN, technology and innovation (see Annex report) that has helped to scope our research.

Impact of technology and innovation on ULN – scoping observations

This chapter starts from the premise that technology and innovation may be able to help reduce incidence of ULN.[1] However, this premise comes with a significant qualification: the term 'unmet legal need' does not simply equate to situations where an individual or organisation cannot instruct a lawyer, perhaps for reasons of availability or cost.

Cost and availability are certainly important elements of the ULN concept, but they are not the entirety of it. Instead, the ULN concept is best thought of as a multi-stage process,[2] only some of which is likely to be directly mitigated by technology and legal practice innovation. For example, one element of ULN is that a person must 'feel' or recognise they have a legal need, that requires attention.[3] However, prior research demonstrates that many of those who are objectively affected by what is clearly a legal issue may not 'feel' that the issue is, indeed, legal in nature. Rather, the issue may be felt to be moral, social or bureaucratic in nature – or even just bad luck and part of life.[4] In such circumstances, it may not even occur to an individual or organisation that legal assistance is required. At that point, their journey along the ULN process will end, without legal sector technology and innovation ever having become relevant.

Additionally, faced with 'non-serious' legal problems (in particular), prior research has found that many people simply do nothing – ie they do not seek to enforce their legal rights. In general, the more serious a legal matter is, the more likely an individual is to do something about it, including seeking advice).[5] Again, this lack of activity suggests that there may be an 'end point' in the legal need journey, before technology and innovation even has the opportunity to have an effect on a person's ability to exercise their rights. Furthermore, even assuming that a legal need is thought to be sufficiently serious to warrant advice, the advice sought may not – necessarily – be obtained from an SRA-regulated organisation or professional. Often, legal advice is instead sought from other sources, which may include friends and family, charity and trade unions.[6] Indeed, there is evidence that other advisor types are often preferred over solicitors,

1 Tulk, N., C. Gorst and L. Shanks (2020). The Legal Access Challenge – Closing the legal gap through technology innovation. Nesta Challenges, Solicitors Regulation Authority, Department for Business, Energy & Industrial Strategy, Innovate UK.
2 YouGov, The Law Society and Legal Services Board (2019). Legal needs of Individuals in England and Wales: Technical Report 2019/20, Legal Services Board / The Law Society.
3 Curran, L. and M. A. Noone (2007). 'The challenges if defining unmet legal need'. *Journal of Law and Social Policy* 21: 63–88.
4 Balmer, N. (2013). English and Welsh Civil and Social Justice Panel Survey: Wave 2, Legal Services Commission; Pleasence, P. and N. Balmer (2013). In Need of Advice? Findings of a Small Business Legal Needs Benchmarking Survey. Cambridge: Legal Services Board.
5 Pleasence, P., N. Balmer and S. Reimers (2011). 'What Really Drives Advice Seeking Behaviour? Looking Beyond the Subject of Legal Disputes'. *Oñati Socio-Legal Series* 1(6): 1; Franklyn, R., T. Budd, R. Verrill and M. Willoughby (2017). Key Findings from the Legal Problem and Resolution Survey, 2014–15. *Ministry of Justice Analytical Series*. S. Bryant, Ministry of Justice; Legal Services Corporation (2017). The Justice Gap: Measuring the Unmet Civil Legal Needs of Low-income Americans. Washington DC, University of Chicago for Legal Services Corporation.
6 World Justice Project (2019). Global Insights on Access to Justice: findings from the World Justice Project General Population Poll in 101 Countries. Washington DC / Seattle, USA, World Justice Project.

in particular, because solicitors are perceived (sometimes erroneously[7]) as being expensive.[8] Finally, prior research suggests that consumers may have an ongoing preference for engaging with people, rather than technology (such as AI-assisted tools) when accessing legal services.[9] This consumer reluctance to use technology will need to be overcome before technology–based solutions can become widely adopted mechanism for delivering legal services.

Taken in the round, legal innovation and technology is therefore most likely to help militate against ULN in circumstances when:

- a legal need has already been recognised as being such by the person affected
- the person regards the matter as being sufficiently serious that professional advice is warranted
- they are comfortable engaging with technology when seeking to address their legal needs issue.

Ideally, at this point of potential instruction, the advisors' use of technology and innovation should facilitate translating this desire for assistance into actual assistance, because other potential barriers to instruction – advisor accessibility, high price etc – do not prove to be impossible to overcome.

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7 SRA. Encouraging trends identified in one–year review of SRA's transparency reforms, 15 October 2020

8 Pleasence, P. and N. J. Balmer (2014). How People Resolve 'Legal' Problems. Cambridge: Legal Services Board: Ipsos MORI / Social Research Institute (2015). Qualitative research exploring experiences and perceptions of unbundled legal services, Legal Services Board / Legal Services Consumer Panel.

9 Legal Services Consumer Panel (2019). Tracker Survey 2019 – How consumers are using legal services, 30 July 2019

Technology and innovation in a ULN-specific context

Even in a legal-sector specific context, there are many ways to define innovation. In this report, we define innovation by focusing on:

• Product innovation – introducing new services

• Delivery innovation – delivering services in new ways

• Marketing innovation – new approaches to promoting services.

In this chapter, we shall mainly explore product and delivery innovation – commonly, 'productising' legal services. By 'productising', we mean taking a legal service that has traditionally been delivered by human legal advisors – such as will-writing – but is instead turned into a (mainly) self-service legal product, typically delivered online. We focus on these two innovation types because they are arguably most closely associated with the actual provision of legal services. By contrast, marketing innovation is more relevant to seeking new instructions sometimes, including via new marketing channels. Chapter 2 of our report offers illustrative examples of marketing innovation. Chapter 5 also briefly explores marketing innovation in the context of what are known as digital comparison tools.

In terms of how ULN, technology, and innovation might complement each other, below is a quote from a large alternative business structure (ABS) legal practice, whose technology-led innovation is highly focused on mitigating against ULN. While this practice obviously cannot help those who never seek out its services, from the point at which contact is made, the service arguably mitigates several ULN challenges. Notably, tailored advice is given regarding the person's existence (or not) of a legal right via an online self-service tool, initially free of charge. This is an example of a 'productised' legal service, discussed previously.

'So, we look at advice in three ways…Our whole goal has been to drive digital innovation into the first step, which is building a really clear understanding of the law, and the second step, which is giving you a clear understanding of what service you need; we have really focused on making those free, and we're now focusing on the third step, which is, once you've been through those steps and you're comfortable with what you need, we're looking at taking your instructions digitally and providing a fulfilment service.' – large PeopleLaw ABS firm

The legal 'fulfilment' service, mentioned above, is chargeable, although generally on a fixed fee basis. This 'freemium'-style fee structure – a free service initially, followed by a payment for additional service – may therefore pose a challenge for those who cannot afford chargeable follow-on lawyers' advice. Another way of reducing (if not eliminating) cost pressures on clients is to offer differentiated pricing, with a lower fee payable for those who are able to self-serve online.

This approach was taken by another of our ABS interviewees, who offered a productised legal service. While the cost of this provider's telephone-based legal advisory service was close to the industry norm,[10] its self-serve online alternative was 25% cheaper.

For both of the ABSs mentioned above, and for others like them, another benefit of digital legal services delivery is that, once the upfront cost of investing in interactive web tools is paid for, supplier resource constraints are all but removed: a single service provider can, effectively, serve an almost unlimited number of clients who visit their website, simultaneously. This would not be the case, as we will explore shortly, where legal service innovation continues to require bespoke, human-led service delivery. This is especially relevant for situations where some, or all, of a legal service is given to clients for free: for services delivered online, there is no capacity constraint for offering this type of service. By contrast, when initial advice is delivered by humans, the key capacity constraint is the advisor's time-based availability, and their willingness to give it away for free.

The first of the ABS firms mentioned above was a clear advocate of meeting consumers' ULN. However, what is also notable about this practice is that its online service delivery platform remains in the development phase, with several new services due to be rolled out in the months ahead. Other firms we interviewed, which we regarded as being innovative in other ways, also observed that their ULN-related online legal services offerings were also in development, rather than being fully operational.

'We've been working on another prototype for the last three years, and this is…this is a purer AI tool… it will be online, it will be free, and it's going to be a digital experience that allows any individual who's experiencing a family law issue… they can go to the site, and they will be asked some questions, but the algorithm that's driving the outputs at the back, it will give them a tailored recommendation.' – small PeopleLaw firm

'What I'm doing, and what we're innovating in next, is taking the technology and the legal knowledge and putting it in the hands of the client. So, we give the client the knowledge and the technology to use it for themselves.' – small PeopleLaw firm

Although these examples are anecdotal, they also reflect our survey findings, discussed in Chapter 2. By way of reminders, these survey findings anticipate that law firms will enhance this type of self-service legal provision in the coming years, including greater user of interactive websites (up from 9.9% of respondents using now to 19.5% planning to use) and chatbots / virtual assistants (up from 6.2% using now to 14.0% planning to use) (see Table 2.5). That said, even with profession-wide increase in the delivery of such services, our survey indicates that only a minority of firms plan to offer them in the near future.

Of course, delivering interactive services online in the ULN space may be good for firms' sense of purpose, but do they add to the bottom line? Unfortunately, our interviewees did not volunteer the profit margins from their digital services. What they did, however, confirm was that digital revenues had become a sizeable percentage of their practice's overall income, notwithstanding the fact that some of them now offer a freemium legal service.

For example, one SRA-regulated legal practice, which was now aggressively expanding its PeopleLaw-focused digital legal services, observed that 38% of the practice's income was now digital 'and that's up from 28% in 2019'. Another firm, which had been digitally focused for its entire existence, recalled that its practice's income was split 50:50 between technology and advisory-led revenues – a deliberate strategy. 'I see them as completely complementary and equal,' the practice representative said. These examples therefore illustrate how it is possible to deliver legal services digitally, offer some services for free – and still generate significant revenues from them.

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10 Competition and Markets Authority and Legal Services Board (2020). Prices of Individual Consumer Legal Services in England and Wales 2020: Wave 3 of a survey of prices for commonly used legal services.

These examples also arguably offer a proof of concept that mitigating against ULN and generating respectable revenues are not mutually exclusive activities.

Another, more indirect, way that practice innovation and new technology might help reduce ULN is by lowering the overall cost of delivering legal services – ideally making them cheaper to provide to end users. Here, the use of online portals and case management solutions was mentioned by several interviewees as their preferred approach to cost reduction across a variety of PeopleLaw-focused specialisms, including family and employment law. Managing a matter online may not appear particularly innovative. But, in a legal sector context, it is. According to our survey, just 15.4% of survey respondents currently offer 'online portals for matter status updates', while a further 21.2% plan to do so in the future (see Table 2.5). We should therefore not assume that offering client online portals and case management solutions will become ubiquitous in the near future.

In contrast to a general, sector-wide reluctance to offer clients online portals or case management solutions, those firms who had installed such systems were generally positive about them, some citing high customer usage and approval rating as key benefits. One PeopleLaw focused firm said that, on an annual basis, 70% of the firm's clients used their online platform, which also enjoyed a 96.7% approval rating. What is more, this service also saves the firm £120,000 each year in non-chargeable time 'because it does tasks that ordinarily we would have to do manually'. This interviewee was also critical of their peers, who had not embraced such platforms, asserting: 'Don't tell me your clients won't like it. When was the last time you asked your clients anything?!' they said.

Another firm, specialising in a different area of practice, estimated take-up for their online services as being 70–80% of the firms' active client base, with no significant variances in take-up by age range. Indeed, this individual was so confident in the user adoption of their platform that they were considering charging clients lower fees for those who used it and higher fees to those that didn't. That said, as will be discussed in more detail shortly, another firm, focused on employment law, acknowledged that take-up of their online portal/case management solution was far lower: around 20%. This example also illustrates that high client usage of such solutions is not inevitable: there are risks attached in terms of actual client usage of such services. Indeed, as previously mentioned in Chapter 2, firms say that a lack of consumer appetite is a significant inhibitor of firms deploying new legal technology.

In each of the above-mentioned examples, the law firms had simply decided to offer their client portal services to clients, in the hope that they would be used. But, in other circumstances, external factors can drive the development of online client portals. For example, in the personal injury space, the forthcoming launch of the Official Injury Claim Portal, often known as the whiplash claims portal, was mentioned by four of our interviewees as a key driver for them investing in their own portal-based offering. Since its launch at the end of May 2021, the whiplash portal enables individuals to file road traffic accident-related personal injury claims with the courts service directly, without the need for professional legal assistance.

In order to remain active in the low-value whiplash claims market, some firms have built their own self-service tools, through which clients can process their claim – with the additional support of legal advisors where required. Explaining the rationale of this investment, one of our mid-sized PeopleLaw interviewees observed that their solution 'allows us to run the claims on a much lighter touch than we would have historically. It takes a lot of the admin out of our hands and puts it in the hands of the customer... I guess our catchphrase would be "accessible expertise" – [the customer] can still access the expertise they need when they need it, but at a much lower cost'. Notably, this firm was now planning to draw on the experience, offering

online case management to other areas of work because 'you know, why wouldn't you? ...If it cuts down on telephone calls, [it] means we're sending less emails, less letters...then all the better'.

Another interviewee, who worked for a large national law firm, noted that their practice was planning to expand its PeopleLaw-focused online offering off the back of its whiplash portal development programme – the technology platform that underlay the whiplash portal had been created in such a way that it could be easily adapted to different practice areas. 'I think of it...like a printer that can print lots of different digital legal service experiences for consumers,' the interviewee said, adding that a new 'technology shell' – essentially the core elements of a new legal service offering – could now be created in just 27 minutes. Future areas of work on this firm's digital roadmap included family and employment law, amongst other areas of law. A third interviewee, whose firm acts for global insurance clients, said their experience of developing their own portal solution in the UK had the potential to scale up globally. 'There is almost endless potential,' they said.

Given that the above-mentioned whiplash portal investments were initially sparked by the UK government's legal services digitisation agenda, we suggest that it might be useful to undertake future research into the extent to which government-mandated legal technology usage has facilitated legal sector investment in PeopleLaw focused self-service lines, particularly in relation to areas of current ULN. Another avenue for research might be ancillary services which surround the UK government's divorce portal. While we encountered numerous family law firms who mentioned this portal while seeking our research interviews, we were unable to secure interviews with firms who offer self-service, online divorce services which supplement the portal's core functionality.

Case history – technology use and innovation to reduce ULN in relation to employment law

In this section, we briefly explore the use of technology and innovation in relation to employment law services. This practice area was selected for a variety of reasons, including that it is known to be subject to high levels of ULN, is disproportionality likely to induce stress and financial loss[11] among consumers, and is also regarded as one of the 'big three problems' affecting the small business sector.[12]

It is also an area of law for which there is very little data regarding the scale of innovation and technology activities by SRA regulated practices in England and Wales. For example, the 2018 LSB study captured no data on usage by employment-focused law firms of a range of emergent technologies, including interactive websites, live chat/virtual assistants, custom built apps or predictive technologies.[13] Indeed, in our own survey on legal technology adoption – conducted as part of this research – we have been unable to obtain insights into the specific technologies that firms have adopted, or planned to adopt in the employment law space (see Chapter 2 Table 2.6a, which indicates that – compared to residential convenyancing and wills, probate and trusts – employment law did not elicit many instances of technology adoption).

In light of the above, we cannot say whether the examples of employment law-related innovation and technology deployments discussed below are reflective of wider market trends. Instead, we regard these interview-based insights as being illustrative of the 'art of the possible'. Most of the organisations interviewed for this segment of our research were SRA-regulated law firms –

a mixture of general practices that we regard as being generally innovative, together with a smaller number of specialist employment-focused law firms. To gain a broader appreciation of innovation across the wider employment law market, we also interviewed a small number of unregulated advisors who focus on employment law.

Starting first with employment-law focused legal practices: echoing the results of our survey, the firms we interviewed were currently focusing their investment activities on what were – effectively – variants of client portals, ie the ability to update clients on the status of their matters. For example, one (non-SRA regulated) employment specialist observed that around one fifth of their practice's client base – representing several thousand clients – had now downloaded the firm's matter management phone app, two years into its development cycle. 'That's a decent percentage, but not as significant as I guess we'd like it to be… this is one area that we are really keen to develop further, in terms of the way in which our clients can access our services,' the interviewee said. Another practice, an SRA-regulated legaltech / law firm hybrid, stated their entire underlying technology platform was

11 YouGov, The Law Society and Legal Services Board (2019). Legal needs of Individuals in England and Wales: Technical Report 2019/20, Legal Services Board and The Law Society.

12 Blackburn, R., J. Kitching and G. Saridakis (2015). The legal needs of small businesses: An analysis of small businesses' experience of legal problems, capacity and attitudes, Kingston University.

13 Legal Services Board (2018). Technology and Innovation in Legal Services - Main Report. An analysis of a survey of legal service providers, Legal Services Board.

designed to allow users to open and track cases, communicate with their lawyers, receive training and obtain documents on a self-service basis. This technology platform was, the interviewee explained, 'a core, central part of our overall integrated proposition.' Notably, this interviewee also observed that, when seeking to develop the firm's solution, they had been unable to locate an off-the-shelf product to form the core of their offering. As a result of this apparent vendor shortage, the firm had been forced to develop its own solution. We shall return to the subject of vendor shortage as a possible inhibitor of legal technology deployments shortly.

Turning now to our wider pool of interviewees, across the PeopleLaw and BigLaw space. Here, our overall impression is that employment law has not tended to be a priority area for innovation and technology deployment among generalist practices, even among PeopleLaw-focused law firms. When asked to identify their main focus of innovation activities, most generalist practices failed to offer any employment law-related examples. And, among those that did, several highlighted their low-cost, subscription-based employment advisory services, mainly delivered by human advisors. The challenge of such services from a ULN perspective is, of course, that the human element of service delivery will invariably act as a constraint on the service's ability to scale, and capacity to reduce the overall cost of service delivery.

In terms of technology-led, employment law-focused deployments – ie. those more likely to scale – the examples offered by interviewees were eclectic in their nature. Examples included:

- a self-service disability discrimination diagnostic tool

- an automated whistle-blowing diagnostic tool, which thematically analysed complaints made by employees

- a digital collaboration tool for workforce engagement, which allowed collective consultations to take place while an organisation's workforce was largely working remotely

- a COVID-19 vaccination tracker, which captures details of employees' participation in vaccination programmes for compliance purposes.

Notably, only one of the above-mentioned examples – the self-service disability discrimination diagnostic tool – is unquestionably in the ULN/PeopleLaw space; owing to their employer focus, the remainder are arguably BigLaw-targeted solutions.

One possible explanation for why employment law appears to be a difficult practice area to automate is that, as the above examples also illustrate, employment law is not a singular work type: consequently, each area of employment law requires its own discrete automation tool. Additionally, and in clear contrast with the forthcoming whiplash portal, we are not aware of any state-mandated online tools, which might help encourage and direct legal practice investment in the employment law space. Unless this latter reality changes, we suspect that employment-law related practice innovation will remain fragmented and sporadic, and largely depend on the priorities and preferences of individual legal practices. In order to obtain a comprehensive picture of the state of innovation within the employment law space, it may be useful to undertake more quantitative – ie survey based – research among firms that offer such services. This might help establish the extent of automated / online service provision (in general), and also the scale of automated / online service provision within its various market subsections.

Regulatory and other barriers to innovation and technology deployment

During our interviews, we explicitly asked SRA–regulated practices if they had encountered any regulatory barriers to innovation and technology deployments.

However, in contrast with our survey findings, which identified 'client confidentiality and data protection requirements' as top concerns (cited by 69.8% of respondents facing regulatory barriers) (see Table 2.12), very few of our interviewees mentioned this specific challenge, and then largely in passing. Indeed, firms were more likely to mention how technology such as specialist email security software was helping them to mitigate such risks.

Once again, the use of portal technology was mentioned by several firms, this time in a security-related context: rather than relying on security solutions that chimed with lawyers' traditional working practices, such as sending password-protected Word documents to clients by email, some firms had moved client matter management largely online, using secure portals as their default client service delivery mechanism. Indeed, one of our interviewees said they looked forward to the day that market pressure would effectively mandate this form of service delivery. There were, the interviewee claimed, 'global data security [directors and managers] coming over the hill [that will] say, "Sorry, we can't communicate like that anymore, with immediate effect – we now need to have a secure platform." So, what will happen is those big businesses will just impose their platforms on the legal industry, and you're going to have to work on those platforms'.

On a related point, several firms mentioned they had adopted new technology specifically to help them verify clients' identities, thereby assisting with anti-money laundering compliance.

While the initial driver of this development was COVID, this specific use case illustrates how technology and innovation can help reduce firm's regulatory risk exposure, not just increase it.

'So, when we are verifying our new clients, they get sent a link to an app. They load the app, they take a selfie, they take a photograph of their passport, and it does it…and then they take a photograph of the utility bill, and the app does the rest, and it verifies – it says, yes, that is the person that they say it is, and a report comes through.' – large PeopleLaw firm.

'We have limited options in terms of other people certifying ID, so using these platforms has been absolutely key to being able to get through that first stage.' – large PeopleLaw firm.

Where our survey findings and interviews aligned more closely was in relation to professional indemnity insurance (PII) challenges, identified by 63.1% of respondents facing regulatory barriers as a barrier to technology adoption. Among those interviewees who raised PII concerns, these concerns tended to focus on two main themes.

Firstly, whether their practice's innovation-related activities would be covered within their firm's main PII policy, and secondly, whether additional insurance cover would be required by firms for cyber-related risk exposure. By way of explanation, SRA-regulated law firms are obliged to take PII cover, and all insurers serving this market are obliged to provide at least £2m of insurance coverage for liabilities arising from 'private legal practice in connection with the insured firms' practice'. This insurance is provided in accordance with the SRA's 'minimum terms and conditions' (MTC) for insurance.

'One of our big ones at the moment is all around insurance. [One thing…] that's slowing things down slightly in sorting out, is whether or not we're insured for these things or do we need additional insurance because there's some services now that we're doing that don't [fall within] legal advice.' – large BigLaw firm.

'We're now offering something that is not pure legal services, so you need some user terms, and [to disclose] it all to our insurers, our brokers, what we're doing, and a disclaimer: you know, is it legal advice, that has to be looked at internally as well, making sure the disclaimers were right.' – large BigLaw firm.

'If you're launching any kind of new service, then there's going to be a question as to whether it's within the definition of 'professional activities' in your insurance policy. Firms would want to talk to their brokers and insurers just to make sure everybody was comfortable.' – large BigLaw firm.

'We have our normal professional indemnity insurance, but we also have cyber insurance now because we recognised the risk of everyone being online. Obviously, there are different risks – you know, hacking … scam-emails, cloning of your website.' – mid-sized PeopleLaw firm.

'There's a really big thing happening that seems to have only just come to light in the last couple of months, in that our insurance companies, who look after our PI[I] cover, are excluding silent cyber from claims.' – large BigLaw firm.

In light of these comments, we also obtained the opinions of two PII insurance brokers who specialise in legal services market. Unfortunately, these interviews did little to provide clarity regarding the extent of MTC coverage. Although both service providers acknowledged that the scope of the MTC appeared broad, they also suggested that firms should speak to their insurer if they had any doubts as to whether a planned service offered might fall outside the scope of 'private legal practice in connection with the insured firms' practice'. Firms should not, in the words of one interviewee, 'just [cross] your fingers and, if a claim arises, then try to [make a] dispute about it.' This approach was also endorsed by our law firm interviewees, several of whom said they had checked with their PII providers when developing innovative new services. Where MTC-based policies are deemed inadequate, additional cover, which does not include the 'private legal practice' coverage limitation, may be appropriate.

Both insurance representatives also suggested that insurance underwriters may require some education about the technologies now being used by law firms, to help them with its associated risks. Indeed, one interviewee suggested that the SRA and Law Society could play a role in this education process. A request for regulators to engage more with the PII market in relation to technology adoption was also made by one of the lawtech companies we interviewed for another segment of our research. This legal technology company, who aspired to become an SRA-regulated ABS, said they had decided to postpone their application because they were 'struggling to get PII because of the tech element of our business'. This technology company felt that the SRA's MTCs made it more difficult for insurers to provide services to technology companies such as theirs, which wanted to provide both technology driven legal information and also advice. Structuring the legal advisory element of their business as a separate company would involve 'more cost, more administration, more headache', this provider said.

In terms of cyber risks, both insurance broker interviewees observed that the industry intended to minimise its risk coverage, by reference to what would be covered by the MTC. Here, the crucial date for achieving clarity on this point was 1 January 2021, the point in time by which insurers needed to clarify whether or not cyber risks are included within their baseline, MTC–based PII policies. According to an insurance broker interviewee, 'the insurance market has taken the view that…OK, we'll exclude it then', adding that the market was 'very tough at the moment'.

In terms of the scope of PII coverage, our understanding is that third party losses in the event of a cyber attack – ie those losses suffered by clients – are almost certainly currently covered under the MTC. This is because, for more than 20 years, the MTC has required those who offer insurance to regulated legal practices to offer comprehensive consumer protection within their PII policies. However, there is now a degree of uncertainty as to whether certain third party losses will be covered by PII policies based on the MTC, where the policy is silent on cyber coverage – hence the term 'silent cyber' to describe such a situation. Here, the combined weight of greater use of technology, existing and emerging cyber threats, a hardening insurance market, and greater oversight by the Prudential Regulation Authority and the Lloyd's of London insurance market, have all combined to make PII coverage in the event of a cyber attack a live issue, which requires ongoing regulatory engagement.

To address this issue, the SRA has consulted on PII MTC coverage. Here, the objective of the consultation is not to try to extend the scope of the MTC to include cyber cover for losses suffered by the firm ie first party losses. Rather, the industry engagement aims to more precisely define when exclusions should, or should not be, permitted under the MTC. For example, the SRA's proposed approach would allow insurers to exclude first party losses caused by a cyber act which resulted in the total failure of a law firm computer system. However, insurers would not be able to avoid providing cover where a cyber attack ultimately gave rise to a successful claim against an insured legal practice by a client or third party.[14]

The third major uncertainty inhibiting innovation and lawtech adoption – indicated by around 43.6% of survey respondents facing regulatory barriers – related to 'not knowing if wider regulations and legislation allowed what we are considering.' Broadly, this concern was reflected in our interviewees' comments regarding regulatory uncertainty. Here, a common theme was the absence of guidance and support by the SRA, rather than actual rules imposed. This absence of guidance and support concern covered two main topics – firstly, general guidance as to whether what firms were planning to do was permissible. And secondly, in relation to the deployment of specific lawtech solutions. Here, the absence of any approved list of vendors – or, at least, an approved methodology for selecting vendors, was a potentially inhibiting factor in innovation and technology adoption.

'They've reduced down and down the regulations and the requirements, so they're very much outcomes focused, which is fine in some ways, but if they're not prescriptive, you know, you don't know whether you're going wrong or you're not going wrong. And, you know, the support side of things can…they're not very definitive on support on things. It's, you know, "we can express a view but, em, you know, basically [we] will deny all knowledge of it and it won't stand up in a court of law – it's not our opinion". So, …it's sort of almost meaningless.' – large PeopleLaw firm.

'For firms like mine, where we're trying to innovate both in the service provision, the models that we offer, and on the technology side, it would be…it would be nice perhaps if we had a more direct line to the SRA and we could say, "Look, can we tell you what we're doing? Can we tell you what the obstructions are? …We're bootstrapping everything, so could you cut us a little bit of slack because it's hard enough?"' – small PeopleLaw firm.

14 Solicitors Regulation Authority (2021). Professional indemnity insurance (PII) – cyber cover: consultation.

'I think the industry would welcome SRA guidance – or an SRA position – on the various uses of legal tech and legal tech providers so that a provider of legal services can either go through a checklist or satisfy themselves, based on some SRA guidance, that they're doing the appropriate things to ensure that liability is fixed in the right place, that the right level of risk mitigation has happened and so on – but they need to do that in a way that is not onerous… The last thing we want is a new set of SRA regulations saying we're now regulating your use of legal tech, and unless you can satisfy us on this, you're not allowed to use it. That would be dreadful.' – large BigLaw firm.

'If there were products which are endorsed by the SRA, for example, then that might encourage other firms to think, "Oh, actually, you know, other law firms have used it and it is endorsed by the SRA, so it's got a quality-mark to it – maybe we should look at using it".' – mid-sized PeopleLaw firm.

Another notable barrier to technology adoption and innovation appeared to be the existing legal technology vendor market itself. Here, several interviewees complained that certain existing vendors hampered their ability to launch new solutions, either because of software integration problems, or their existing suppliers were not prompt in providing the required integration support.

'I feel quite angry about the poor service that lawyers are given from the main software providers. I think it's really, really poor. What are they afraid of: that they will not build APIs? That we'll connect to other competing systems?' – small PeopleLaw firm.

'The challenge is actually still things like the APIs and the integrations and so on…For example, there are two or three integrations where we have just had to put them on hold…because [company name] don't have the time as it stands to be able to do the development work that we want to be able to move forward. So, that's been a real challenge this year, particularly in that, ultimately, we're still beholden to the owner of the case management system.' –small PeopleLaw firm.

These comments may help explain another of our survey findings, which asked about risks associated with technology adoption. The second highest response to this question was 'support from the technology provider may be inadequate' (27.80%) (see Table 2.10). Clearly, some law firms are not happy with their legal technology providers. Furthermore, our interviewees point to a particular point of law firm annoyance – their solutions vendors' lack of APIs (application programming interface) and its knock-on challenge for law firms who are trying to integrate multiple solutions. That said, we also note that one long-standing legal technology company we interviewed, who provides 'white label' legal document assembly solutions, was equally critical of law firms as clients – describing them as 'fiefdoms' that were 'very difficult to sell into'. Because the law firm market was so hard to gain traction in, this company had switched its focus to institutional clients.

Another issue that appears to be relevant in the PeopleLaw space, in particular, is an absolute lack of vendor provision, specifically in relation to client–facing legal technology. For example, a provider of services in employment law market said:

'So, seven years ago, I sat there with a customer demand – a naivety that, actually, what I'll do is look out into the third-party market, find the best system I can and white-label it and offer that to my customers. The third-party market never arrived. It didn't exist. I couldn't find anything. So, I decided to build it.' – small PeopleLaw firm.

In the example offered above, the firm ultimately overcame an absolute lack of vendor provision by building their own solution in-house. Furthermore, we encountered several other examples of firms who had followed this broad approach. However, it is arguable that this 'build it yourself' approach is sub-optimal, in terms of wider scale-up of this type of technology deployment.

The comments below highlight several challenges with the 'build it yourself' approach to legal technology deployments. Firstly, and most significantly, non-legal IT skills are required to fashion legal technology solutions from generic technologies. Secondly, while freeware can help mitigate software creation costs and maintenance issues, firms may nevertheless require access to specialist (non-legal) personnel to create their novel legal technology solution – ie there is a human capital cost associated with the software's deployment. This consideration may help explain another of our survey findings, which was that 'lack of staff expertise to assess and implement technology' (50.1%) was one of the most significant barriers to legal technology adoption. Finally, it may also explain why around half (48.1%) of survey respondents who engaged in innovation employed consultants to help them.

Illustrating how they assembled PeopleLaw services from non-legaltech providers, the interviewees below discuss how they did so. The technical expertise demonstrated in these comments are arguably far removed of those expected of a typical lawyer.

'We used Gravity Forms, which is a plug-in [for] the WordPress blogsphere, and it's just that we spotted that it had very considerable scope for expanding beyond what's your name and what's your email address, because it had conditional logic rules, so we used it as a prototyping tool. So, the novelty is the fact that we applied it to an onboarding experience for [types of] clients in a certain level of distress, and then, because of the plug-and-play universe that sits behind WordPress, we were able to do all of those shortcuts, a low-code environment...way back in 2010.' – small PeopleLaw firm.

'I think probably cloud technology has been the fundamental enabler for the industry to move on... We build all our workflows in dot.net or whatever, but they sit in cloud.' – small PeopleLaw firm.

'It's got a modern database underneath it and we're using the Angular front-end framework, which was created by Google. So we're just leveraging that, and then we're writing good quality, reusable, API first, back-end technology.' – large PeopleLaw firm

'Natural language processing is available for everybody – AI machine learning, deep machine learning, document readers, etc... it's managing a client problem, taking legal knowledge, and then shaping technology, which is available to everybody. So, when I mentor some of the lawyers, they suddenly have this look over their face, "Oh my God, that's so simple! We thought there was some special technology that has to be invented to do legal." No, not at all, and that's part of the problem.' – small PeopleLaw firm.

In addition to the IT skills required to build their own solutions, several PeopleLaw interviewees mentioned the capital challenges associated with innovation. Notably, two of these were ABSs. However, each had its own unique capital challenge.

'Cash I still find is a barrier for legal services. I actually had to go to London to raise the cash because I needed to borrow several million, twice, to recruit people and technology to scale quickly... Although I'm based in [location], I couldn't find the right risk-taking capital market... I ended up going to London to raise the capital to be able to grow the business.' – mid-sized -based PeopleLaw firm.

'We don't have access to external capital...We develop on a shoestring.' – large People Law firm

Risks associated with technology deployments

The firms we interviewed had a wide range of experience regarding new technology deployments, and the risks involved in those deployments. In some situations, their entire practice was built on a bespoke technology platform, developed with the end-client's specific requirements in mind.

For these practices, the risk associated with technology deployments was central to their firm's very existence: no technology, no practice. But, far more frequently, a technology solution was being deployed in order to deliver a specific innovation outcome, such as using image recognition software to extract dates from leases. The outright failure of such a solution, or its failure to perform to an expected quality, would therefore be highly localised. It should therefore be appreciated that the nature, and scale, of risks involved in new technology deployments and practice innovations are highly specific to each context. Risks therefore need to be assessed on an equally specific basis.

Turning now to how law firms approach the risks associated with technology deployments: the dominant attitude towards their projects was one of calculated risk acceptance. Therefore, rather than avoiding risks entirely by not investing in technology, risk mitigation was the preferred approach. That said, we observed a slight difference in approaches between the BigLaw firms we interviewed, in that they were more likely to have a formal innovation evaluation architecture in place. By contrast, PeopleLaw firms were more likely to work on a smaller number of projects, and therefore not require such infrastructure. PeopleLaw firms, in particular, also tended to mention that the projects they were working on were being developed using minimal resources.

'We have also the innovations lab, which is an idea incubator. So, this sits within…that was set up in [date], and it was…it's just like a virtual team of lawyers and business services professionals, so from the risk team, from the finance team, who work together to develop ideas into viable business cases. So, someone *would come up with an idea, they would present a business case, a little bit like Dragon's Den, you know.'* – large BigLaw firm.

'We have kept our model of development very, very, very light, very focused. We…can't afford an hour of misspent time. So, we get a long way by having a highly disciplined approach. We have very limited resources.' – large PeopleLaw firm.

In our survey, one of the more common risks associated with deploying new technology is the perception that the investment will not bring any business benefits (cited by 55.6%), or that clients will not like them (cited by 22%) (see Table 2.10). In relation to the previously mentioned whiplash portal technology investments, these risks could obviously be mitigated because the technology investment was essential to the firm continuing to operate in that particular market. Other firms we interviewed had reduced their risk of non-client usage by either engaging with them heavily during the development phase or by building specific solutions for specific clients. By contrast, comparatively few had adopted a 'build it and

they will come' approach. Even if this was the case, the specific solution developed was often intended to complement a service already offered.

In the PeopleLaw space, another way to spread the risks associated with technology development is to 'white label' your core offering, and sell it to third parties. This approach was undertaken by two of our SRA-regulated PeopleLaw law firm interviewees, both of whom had developed their legal service offering and sold it PLC clients. The advantage of this approach is that, while individual clients are likely to represent an ad hoc source of revenue, institutional clients will be more dependable, and the cost of acquisition of each customer will also be lower.

In terms of technology risk reduction, one potentially significant factor is 'low code/no code' technology platforms. Such solutions allow firms to build their own legal technology-based products and services in-house, at minimal expense – usually a licence fee and technical support, if required.

'We license the platform, and then we can completely build it all ourselves. We have arrangements where we have consultant developers that support us, as well as in-house developers, so we have a mixed approach. We have licence freedom to do as we will with it.' –BigLaw firm.

Where more complex legal technology products are needed, another risk-reduction strategy is to engage in 'bricolage' – that is, building a new product from several others:

'We've got [vendor name 1] [for] electronic signatures and we combine it with [vendor name 2], which integrates with [vendor name 3] to do mass re-papering. So, it's really trying to push the boundaries, and bring the suppliers along with us on that journey.' – large BigLaw firm.

'[We] used a mix of the [vendor name 1] platform and the [vendor name 2]...contract review platform.' – large BigLaw firm.

As with the no/low code examples offered above, this approach can reduce a solution's overall development costs, because each component of the solution is not developed by the law firm in-house from scratch. Previously, in relation to PeopleLaw solutions, we have illustrated how new legal solutions can be created by using generic consumer tech, such as WordPress. In the BigLaw space, law firms appeared more likely to use multiple specialist legal technology solutions when creating their new legal offering via bricolage.

Of course, building a solution based on multiple components creates its own risk profile. On the one hand, a firm is able to leverage the domain expertise of each constituent software vendor, essentially adopting a best of breed approach. On the other hand, creating a new solution from multiple existing vendors poses a novel supplier risk: if one component supplier fails, will the entire solution fail? We briefly discuss how firms might mitigate this risk in the next section of this chapter.

Relying on third party technology also exposes the firm to risks, should that technology fail to perform as expected. This is arguably a particular risk in relation to experimental, AI-based solutions, perhaps developed by the law firm in conjunction with a university or startup company. Some of the firms interviewed for this report had addressed this issue by having frank conversations with clients about the risks involved, and also disclosing their use of this technology to their insurers. Ultimately, however, the regulatory position on who is responsible for the use of such technology is clear: according to rule 3.5 of the SRA code, law firms who supervise or manage others to provide legal services are 'accountable for the work carried out through them.' Acknowledging this situation, one of our interviewees noted in fairly robust terms that this type of solutions vendor are 'basically technology providers' and 'were not placing any responsibility on them to do anything that relates to the quality of legal advice or, indeed, the quality of the machine learning or the AI. It's essentially caveat emptor. We try to get the tool to do what we need it to do, and we make it as good as we can.'

Supplier failure risks

Today, there are hundreds of lawtech startups. And, in common with the wider startup community, many of these companies currently have little revenues, and some will not ultimately survive.

To minimise the likelihood of this eventuality, some of the firms we interviewed had developed risk reduction strategies that they drew on before engaging their legal technology suppliers. Some firms interviewed for this report have formal innovation processes in place, which must be followed before any new project can be approved. And, because this innovation process is collated and recorded centrally, it is impossible for firm employees to engage a lawtech venture without the approval of relevant authorising departments, such as the firm's innovation, IT or procurement function. As one BigLaw innovation leader said, 'If someone does try to sneak something in, it gets pinged back with the message "you can't".'

Once a need for a solutions vendor had become apparent, several of the law firms we interviewed said they use their standard procurement processes as a method of assessing supplier risk. Within this group, no clear pattern of behaviour emerged. Some firms preferred to appoint companies with a successful track record. Others were more willing to take a chance with suppliers that were less well known in the legal sector – especially where the task to be performed was standalone, and used proven technology. Here, data extraction from leases using image recognition software was an example mentioned by several of our interviewees. Some firms also preferred to appoint suppliers with whom there was a prior relationship – either their own, or with their clients.

'We use [vendor name] to extract data from title deeds. Our relationship with them is solely based on that.' – Large BigLaw firm.

'That supplier has a fantastic kind of history – they do work for a number of our clients. They do all the digital presence for [public sector body] and so forth.' – BigLaw firm.

'We had already engaged them for something else – so yes, the relationship pre-existed that product. We did look at more than one provider to do the development, but there wasn't really an RFP [request for proposal – ie a tender] – we just know them.' – BigLaw firm.

Whatever type of supplier a firm ultimately engages, our interviewees tended to thoroughly assess their preferred suppliers' IT-related risks, focusing on issues such as data protection, data residency, information security, and disaster recovery. Here, accreditation such as ISO can help, in terms of confidence building.

In addition to monitoring the company against its project deliverables, some law firms also monitor the supplier company, looking for any sign of internal stress: in particular, the departure of a senior employee was seen as red flag worthy of investigation, as was the acquisition of the company itself.

In the event that a supplier fails entirely – or starts demanding unreasonable contract terms – one option for law firms may be to swap the solutions for its nearest competitor, accepting that there will be some disruption and loss of functionality while this switchover happens. Another option, particularly where the company has failed, is to acquire it, including its codebase. Indeed, several of the law firms interviewed for this project said that they had acquired lawtech companies and incorporated those companies into their business.

Chapter Summary

In this chapter, we have illustrated the situations where legal technology can help fulfil unmet legal needs, and also the situations where it cannot. Where cost is a barrier to instructing a lawyer, technology can help if it allows the service to be delivered for free.

And where there are perceptions of legal costs being unaffordable, technology can help to provide information on the actual costs. But where technology cannot help is when a person never realises that their problem is legal in the first place, and therefore does not seek legal help – or is simply not able or willing to use technology-driven solutions that are available. For that reason our position is that, while technology and innovation may be able to help reduce incidence of ULN in some circumstances, it cannot be expected to eliminate it entirely.

In this chapter, we offer examples of how it is possible for law firms to generate respectable revenues, while also improving access to justice. Firms can, and do, achieve this in two main ways: firstly, by developing self-service solutions, which clients can use at little or no cost. And secondly, by using technology to reduce the cost of delivering legal services. While some of the existing technology solutions do well in substituting for human lawyers completely, in other situations this costs reduction is achieved by requiring humans to undertake the more administrative elements of legal service given, often via self-service online portals.

Although our interviews revealed innovation activity across the PeopleLaw space, we also observed that the level of activity appeared to be practice area dependent. We observe that the government's whiplash portal appears to have spurred a flurry of innovation activity among law firms who serve that market. By contrast, innovation in the employment law space appears noticeably more ad hoc.

In terms of barriers to adoption, uncertainty appears to be an important inhibiting factor. This uncertainty can take many forms, including in relation to a lack of SRA guidance and uncertainly about PII coverage. One of the more unexpected barriers to adoption, revealed by both our survey and our interviews, is the legal technology sector itself. Interoperability challenges between solutions vendors, and a lack of vendor support, appear to be important inhibitors. A lack of legal technology vendors appears to be particularly problematic in the PeopleLaw space, forcing law firms to 'build their own' solutions. This may inhibit the ability of the PeopleLaw sector to scale their usage of client-facing legal technology, in particular.

In terms of the risks associated with technology developments, these appear to be highly specific to the vendors and the solutions being developed. This, in turn, leaves the firm exposed to differing risk types, for which specific types of risk reduction strategies will be appropriate. For example, risks associated with technology deployments can be reduced by a variety of mechanisms, including innovation governance, costs control and client buy-in. Using off-the-shelf solutions can reduce technology development risks. However, this approach can also increase the vendor failure risks, especially when multiple vendors are used to create individual solutions. It is therefore important that law firms undertake appropriate due diligence of their legal technology software vendors, especially startup ventures.

Appendix to Chapter 4

Interview methodology

We identified organisations to be interviewed, by classifying them into legal service providers with individual and small business clients in areas such as conveyancing, personal injury, family, employment, immigration, and consumer matters, and those that advise large businesses, supporting commercial transactions and disputes. We also ensured variety in terms of ownership structures to include law firm partnerships, law companies, ABSs and alternative legal services providers.

We deliberately oversampled legal practices that were innovating in relation to employment law, the subject of our ULN case history. We additionally oversampled interviews with compliance officer for legal practice, and other professionals associated with the evaluation of lawtech companies, for our analysis of supplier risk failure. In light of comments made in both survey responses and interviews regarding the professional indemnity insurance (PII) risks associated with technology deployments and innovation, we additionally interviewed two insurance professionals to explore this issue further.

We contacted potential interviewees by email, or if we did not have their direct contact details, via LinkedIn. Each interview, conducted via Zoom, lasted one hour on average. All interviewees in each category were asked the same questions which were developed by the Oxford University team and signed off by the SRA. To ensure the authenticity of interview-based insights, a written assurance of anonymity was set out in the participant information sheet, emailed to all interview participants ahead of their interviews. The interviewee quotes included in this report are therefore provided on an unattributable basis. And, while the SRA was made aware of the broad demographics of the interviews undertaken, it was not informed about specific legal practices or persons to be interviewed – the exception being the two PII professional interviewees, who were recommended by the SRA.

All interviews were recorded and professionally transcribed, and detailed notes were taken during the interviews. The recordings and transcriptions were used to identify key themes and to provide examples to include in the report. The SRA will not be granted access to any of the research team's interview notes, recordings or transcriptions.

Lawtech Ecosystems: Funding, Scaleup, and Policies

INTERACTIVE CONTENT LINKS
5.1 Lawtech startup trends in UK and US
5.2 Funding for lawtech startups in UK and US
5.3 Gender diversity and inclusion in lawtech founding and funding
5.4 Acquisitions and exits of lawtech startups
5.5 Government and regulators' approaches to promoting startups
Chapter Summary

This chapter turns to the question of how lawtech adoption and innovation are funded in the UK. We take an ecosystem approach. The lawtech startup ecosystem consists of key stakeholders, and our aim is to study how they are linked via funding flows, movement of people, and policy and regulatory coordination.

In particular, we examine this phenomenon from three perspectives within the ecosystem: lawtech startups and their founders; investors, including venture capital and law firm accelerators; and policy-makers and regulators. Throughout, we make comparisons with the US. Also, we highlight issues surrounding diversity and inclusion, and contrast the PeopleLaw and BigLaw market segments wherever appropriate.

Lawtech startup trends in UK and US

What is the size and shape of the lawtech startup community in the UK? We use two data sources, Crunchbase and Legal Technology Hub, to identify 104 lawtech startups in the UK and 256 startups in the US which were founded in or after 2008 (see Chapter Appendix for details on methodology).

Figure 5.1 shows the time trend in the number of lawtech startups founded each year during 2008–2021. In both the UK and the US, the numbers increased during the first decade, with the annual UK startup numbers peaking at 15 in 2018 and US numbers peaking at 32 in 2017. Thereafter, both countries experienced a decline in growth rate predating the COVID–19 pandemic. By 2020, the UK and US numbers are equally quite low. It is possible that part of the slowdown in lawtech founding activity is due to a data issue.

Figure 5.1: Time trend in founding lawtech startups
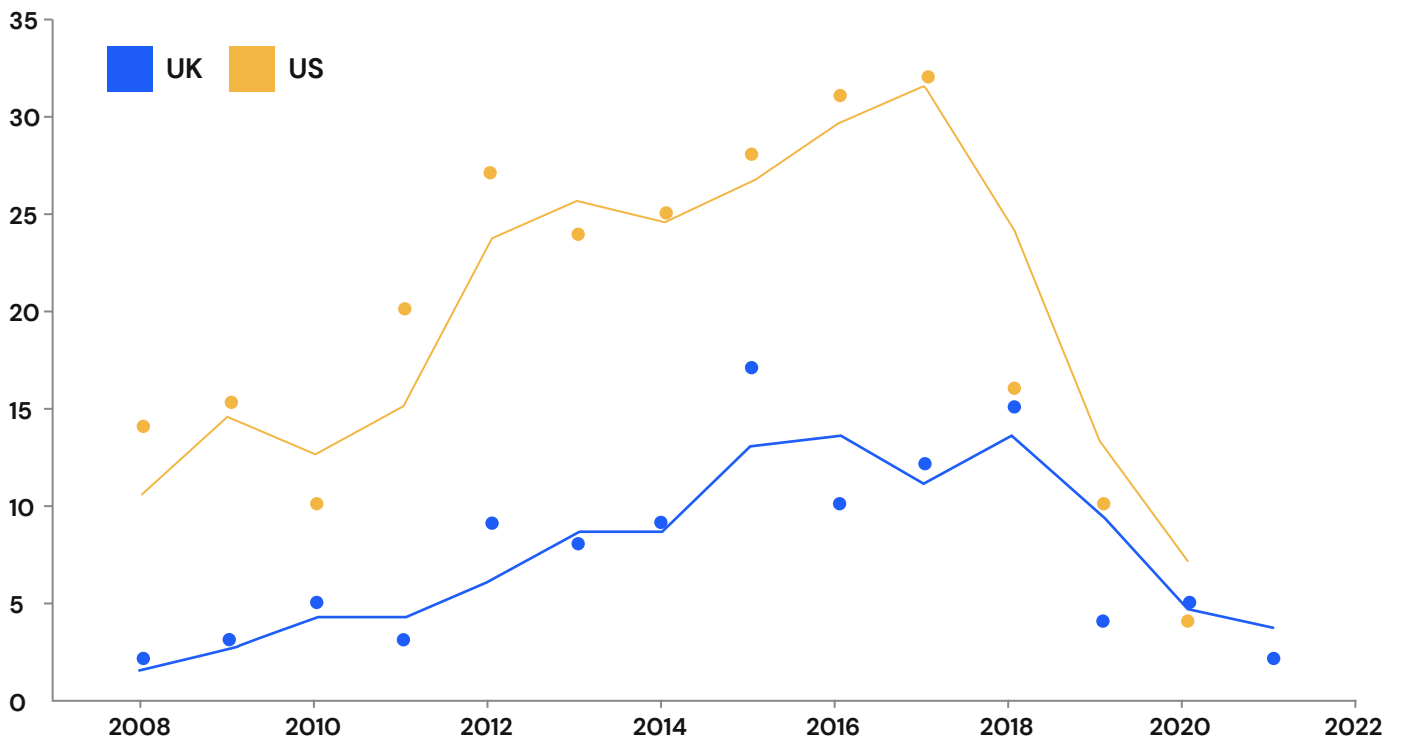
Next, we classify the venture population into PeopleLaw or BigLaw, depending on each venture's client base. In a minority of cases, such classification was not possible owing to a lack of information, or because the client base straddled the two segments or included others such as the public sector. Removing these hybrids, we end up with 59 BigLaw ventures and 49 PeopleLaw ventures in the UK, and 282 BigLaw and 161 PeopleLaw ventures in the US.[1] There are therefore more BigLaw than PeopleLaw ventures in both countries (see Figure 5.2). Figure 5.3 shows time trends in the two market segments in the UK.

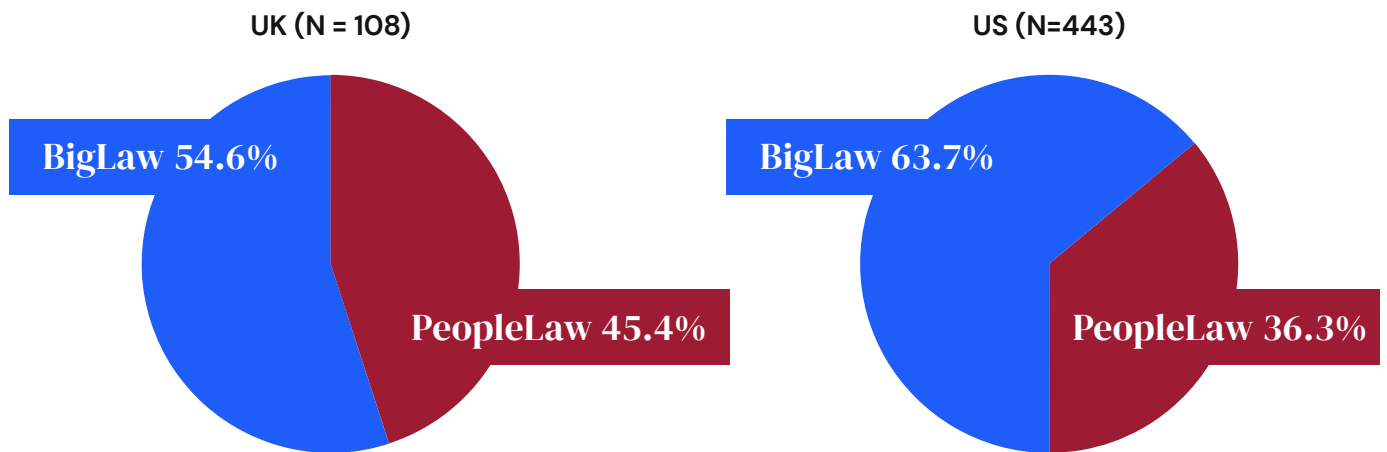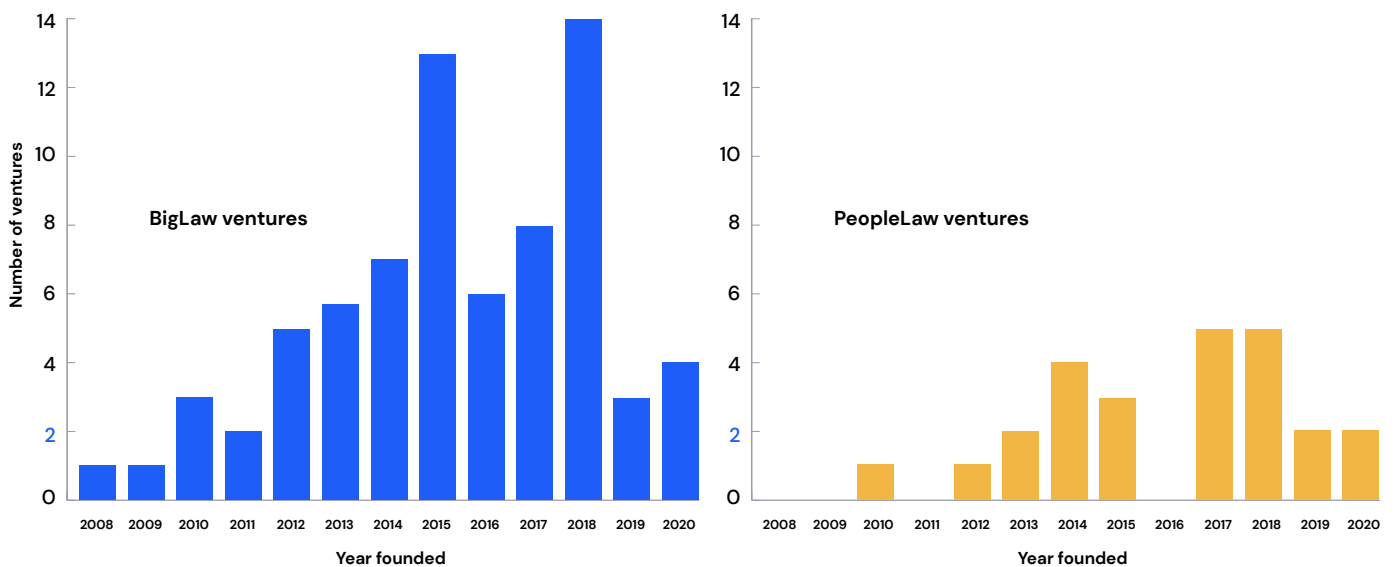## Figure 5.2: Lawtech startups classified into PeopleLaw vs BigLaw

UK (N = 108)

BigLaw 54.6%

PeopleLaw 45.4%

US (N=443)

BigLaw 63.7%

PeopleLaw 36.3%

Figure 5.3: PeopleLaw and BigLaw startups established over time in the UK

BigLaw ventures

PeopleLaw ventures

Where are these lawtech startups located? Figure 5.4 shows the venture locations in the UK and Figure 5.5, in the US. The maps show not only the geographic concentration of venture firms but also the ratio of BigLaw to PeopleLaw ventures in each cluster with a colour code. In the UK, lawtech startup activity is highly concentrated in London, as indicated by the large bubble size. Also, London is tilted towards BigLaw ventures, as shown by the green colour. The yellow bubbles also exist with one BigLaw venture each in Haslemere, Teddington, Brighton, Birmingham and Farnborough. In other regions, lawtech startups tend to be in the PeopleLaw market segment.

In the US, large BigLaw startups cluster in large cities with financial and legal services such as New York, San Francisco, Chicago and Los Angeles (see the large green bubbles in Figure 5.5). Other BigLaw startups are located in the cities of Washington, San Mateo, and Berkeley (see the smaller yellow bubbles). Unlike in the UK, however, there are a large number of other locations for lawtech startups indicating in part the importance of the state–level structure of legal regulation in the US.

Figure 5.4: Geographic locations of lawtech startups in the UK
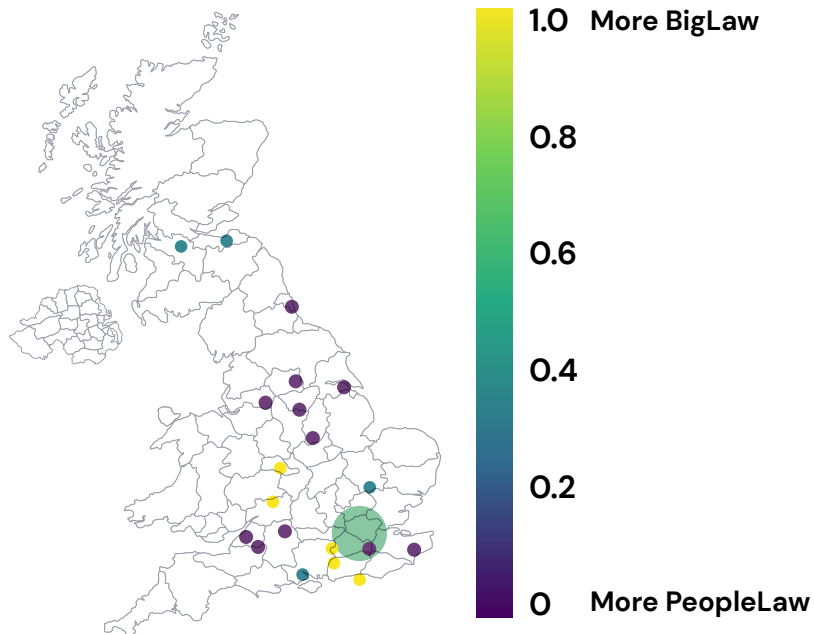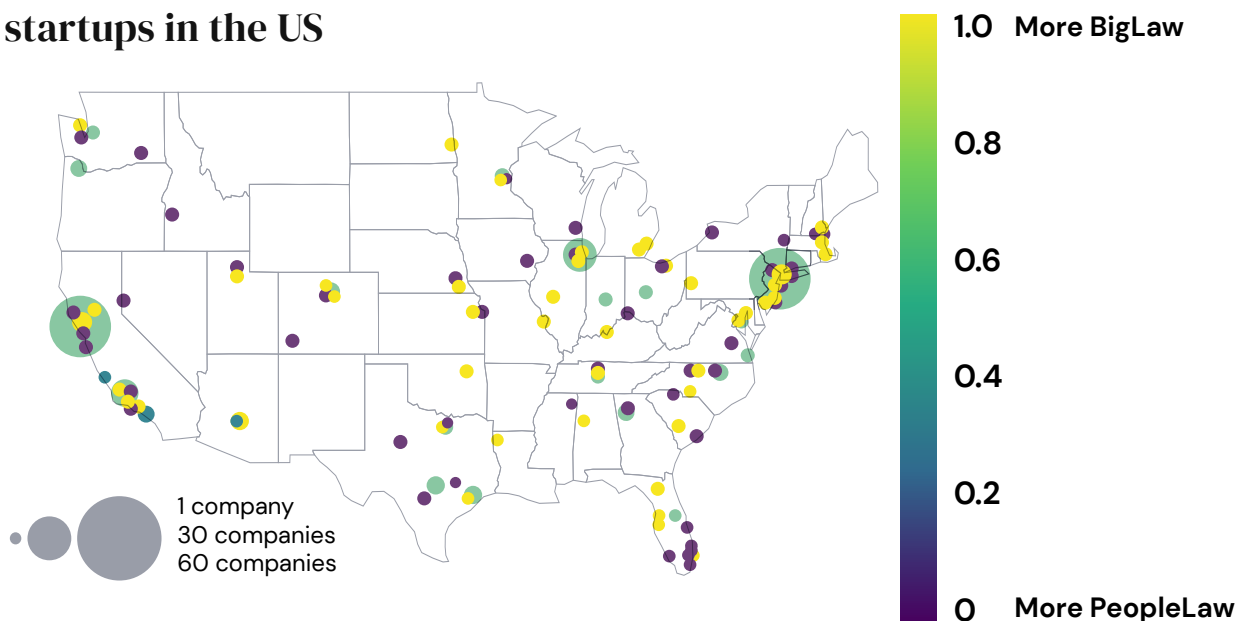

Figure 5.5: Geographic locations of lawtech startups in the US

Funding for lawtech startups in UK and US

In order to start and grow young ventures, founders look for funding from various sources, which is disbursed in 'stages' of increasing value, known as funding rounds. This section explores funding patterns by source, market segment, and venture type.
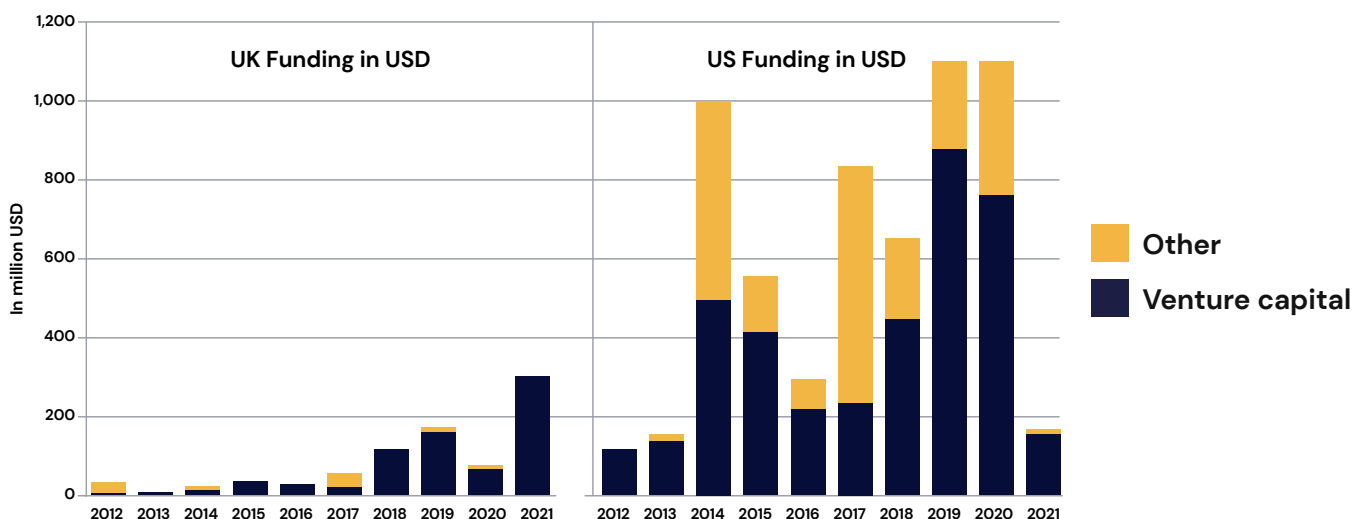
Venture capital is the predominant source of funding for lawtech companies (see Figure 5.6). The US raised over a billion USD per annum in 2019 and 2020, compared to less than 200 million USD in the UK except in 2021. Cumulatively, US lawtech startups raised a total of 5.98 billion USD, and UK lawtech startups a total of 853 million USD. This funding gap is in part due to the Silicon Valley phenomenon in the US, with a large pool of venture capital funding available for technology startups. It is reflected in a sizeable difference in average funding per venture, at 9 million USD in the UK compared to 28 million USD in the US.

Notwithstanding this gap, lawtech startups in the two countries have received funding from a variety of sources (angel, venture capital, grant, etc.) at different stages of growth (from pre-

seed, seed, Series A, to later Series before 'exit' by being acquired or other means). Table 5.1 shows that, while the variety is high and information incomplete (with unknown and undisclosed information), seed funding at early stage (typically valued between 10,000 and 2 million USD) is the most common in both countries.

Turning to investment funding by market segment, Figure 5.7 reveals a striking contrast between PeopleLaw and BigLaw. In fact, most of the funding in the UK went to BigLaw startups, with PeopleLaw ventures being a small niche investment category. Only 3.2% of the total funding flows into the PeopleLaw sector in the UK. Moreover, with a total of 75 BigLaw funding rounds and 23 PeopleLaw funding rounds, the average funding size in PeopleLaw is smaller than in BigLaw.

## Figure 5.6: Funding for lawtech startups, by type of funding

Table 5.1: Number of funding rounds by stage, in UK and US

Investment type	Summary	UK	US
Angel	Launch funding, often provided by friends and family.	7	13
Grant	Non-equity investment in company, from investors, companies, governments etc.	6	11
Non-equity assistance	Support can include office space or mentorship.	0	1
Equity crowdfunding	Company typically offers equity stakes to public, using a public platform to do so.	6	0
Initial coin offering	Crowdsourced fundraising using cryptocurrency as capital.	1	0
Pre-seed	Investments are typically worth less than USD 150,000.	12	13
Seed	A common form of investment, typically valued between US$ 10 thousand and 2 million.	46	115
Debt financing	Investors lend money to company, rather than acquiring shares in it. The loan is repayable.	4	22
Corporate round	When another company, rather than a venture capital firm, takes a stake in a company.	3	3
Secondary market	Fundraiser when one investor acquires shares from another investor, rather than from the company directly.	0	1
Series A	Investments typically valued between USD 1 – 30 million. Values can merge into series B funding.	14	60
Convertible note	'Between rounds' funding, which converts to a discount price at the next round. Typically issued between series A and B.	2	19
Series B	Investments typically valued between USD 1 – 30 million. Values can merge into series A funding.	8	44
Series C	This funding round typically starts at USD 10 million.	0	18
Series D – G	Lawtech specific examples within our cohort include investments worth between USD 100 and 250 million.	2	19
Private equity	Late stage funding for mature companies – typically USD 50 million or more.	1	7
Post initial public offering equity	Fundraising after company has already gone public.	0	6
Series unknown	Investment series type is not disclosed.	11	63
Undisclosed	Value of the investment is not announced.	1	3
Total		**124**	**418**

Source: Crunchbase

Figure 5.7: Funding for lawtech startups in the UK, by PeopleLaw vs BigLaw market segment
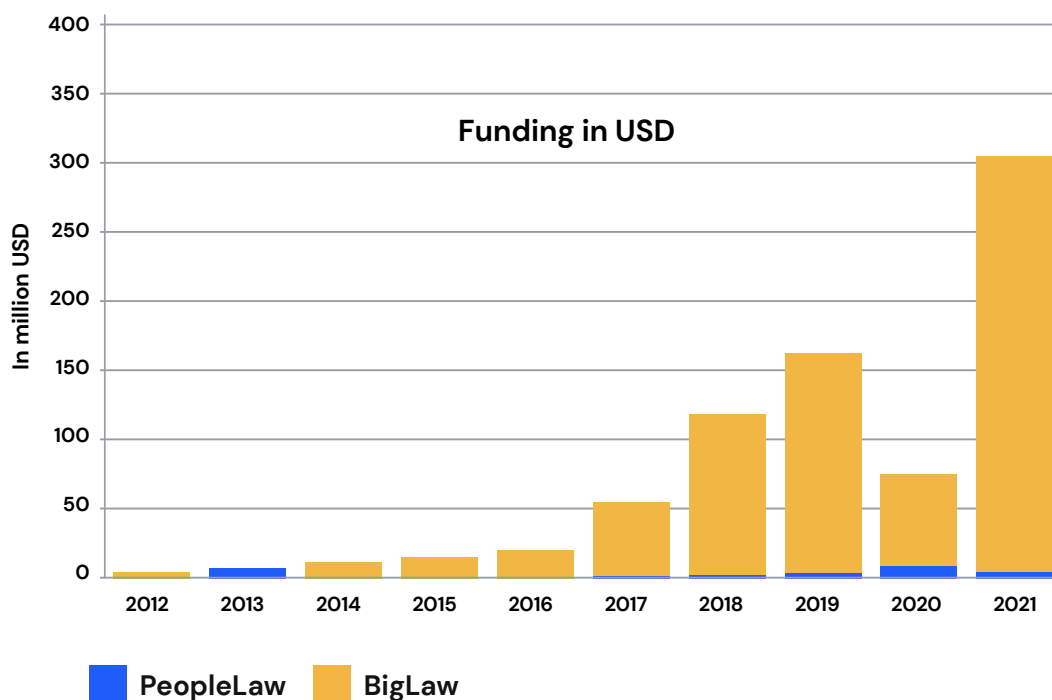
To draw more granular insights into these funding patterns, we interviewed several lawtech venture founders and investors. The ventures we interviewed are at different stages in the funding journey, ranging from seed funding to Series B. These companies therefore broadly reflected the lawtech funding market, shown in table 5.1 above. We also interviewed both seed investors and professional investors with their own investment houses.

Describing their investment journey to date, all of our lawtech founder interviewees said they initially relied on angel investors to support their business, although one confirmed that they had also secured grant funding. Angel investors were typically drawn from founders' personal networks, including friends, families, and former work colleagues. For those slightly along the investment journey, proactive networking with new contacts also helped secure funding. Sometimes funding was secured by targeting specific individuals, who are known to be early stage lawtech investors.

However, on other occasions, luck also played its part: one PeopleLaw founder initially met their seed funders after sitting next to them and sparking a conversation.

'To start with, it was founder funded. I had to get a certain level of traction, and then I was able to raise angel funding from a small group of high-net-worth people – not exclusively lawyers, but they were the first people who invested into the business. After that I looked for institutional investors.' – Founder of a legal sector-specific digital communication platform startup.

'One of our main missions was to get [funding] from people we didn't know because I wanted to prove the idea.' – Founder of legal resourcing startup.

'We were based in [location] next to a seed fund – literally just sitting next to... people who were starting a seed fund, and they ended up leading our seed round.' – Founder of a PeopleLaw service startup.

Networking is also important to startup funders to identify investment targets.

'I get the bulk of my deal flow from networking – knowing VCs [venture capital companies], having been part of syndicates and informal networks. I can get as many as ten inbound requests a week – including people reaching out on LinkedIn. The advantage is that the VC company that started the round has done the due diligence and scrutinised everything before creating a small allocation for value-add angels. I get deals from a mixture of VCs and angels.' – Serial entrepreneur, investor, and mentor.

'I left [legal publishing company] in [year], and started getting calls from private equity firms about helping with deals. So I did that just out of the kindness of my heart, because I was told I [was] supposed to network… And then at the same time, I have some former [legal publishing company] employees who wanted to go out and start their own company; they asked me to invest in it, which I did.' – Angel and institutional lawtech investor.

Besides obtaining direct funding, some of our lawtech founder interviewees also obtained benefits in-kind that aided their business.

'Initial funding was from angels and government grants. We also had funding equivalents in in-kind services: AWS [Amazon Web Services] credits covered our technology costs for about two years; we had pro bono input from law firms and one investor who is a solicitor. We got mentorship from accelerator programmes and incubators and input from regulators. It is services in kind, and we definitely couldn't have done it without them.' – Founder of startup providing SME access to legal information and advice.

For angel investors, one of the fringe benefits of investing in lawtech startups is that tax breaks allow them to mitigate their losses, should the company they invest in fail. In the UK, the government's Enterprise Investment Scheme (EIS) and Seed Enterprise Investment Scheme (SEIS) were mentioned by investor interviews as an incentive for not only investing (at all), but also investing to a particular financial value and for a particular period of time specified in EIS or SEIS.

To understand why PeopleLaw lawtech startups, in particular, tended to attract less funding, we actively biased our lawtech interview sampling towards PeopleLaw ventures. We also asked investors for their views on both PeopleLaw and BigLaw investments. In theory, the existence of unmet legal need, discussed previously in Chapter 4, means that PeopleLaw segment represents a huge untapped market, with significant potential for growth. However, several of the investors we interviewed appeared to be wary of this market segment, compared with its BigLaw equivalent. Here, they raised doubts regarding the ability of PeopleLaw startups to scale their businesses in a cost-effective manner.

'The issue with B2C is the cost of customer acquisition. [founders] may have developed an app that serves the consumer area…the issue is they don't have great business training and they don't know the best way to leverage social media, sales and marketing. They don't understand channels that have to be extended and efficient. Often, what they end up doing is having business that simply can't scale.' – Angel/institutional investor focusing on lawtech.

'I'm slightly old school in that I think a business's value should have some linkage to what it's going to earn in the future. The big challenge for any consumer model is to explain their route to market. You may have a great legal services product, but how are you going to promote it?' – Angel investor backing several early-stage lawtech startups.

In essence, one of the structural problems with PeopleLaw ventures is that some of them deal with one-off and discrete events – property transactions, divorce, will-writing, etc. Yet, because these solutions vendors are also often startups, intent on competing with market incumbents, they also need to build a large customer base. The need to build a large customer base, who tend not to be repeat customers, appears to make potential PeopleLaw investors nervous. Indeed, one lawtech investor estimated that, based on their understanding of other sectors, building a popular consumer brand could cost 'in the hundreds of millions of pounds, if not billions' over a timeframe lasting decades. Perhaps not surprisingly, this investor had opted to concentrate his investments in the BigLaw lawtech market.

By contrast, lawtech companies who target BigLaw clients have a far smaller potential client base – typically law firms or in-house teams. However, because they use BigLaw solutions on an ongoing basis, BigLaw clients are likely to be repeat customers, who buy services on subscription. This long-term, subscription-based business model makes it relatively easy for would-be investors to evaluate a BigLaw-focused lawtech startup's value. Other, more professional, investors have reached broadly similar conclusions as to which type of lawtech companies are most attractive to investors – ie 'structurally repeating revenues' and 'a sticky, blue chip customer base'.[3]

To address these investor concerns, one PeopleLaw interviewee in family law told us that they were attempting to expand their core business proposition by bundling core one-off legal transactions with multi-year subscription-based support services based around co-parenting issues. Another described their suite of services, which, although based around one-off transactions, also complemented each other – thereby lending themselves to service bundling and cross-selling, and reduced customer acquisition costs as a result. Indeed, this interviewee was able to put a precise percentage of services cross-sold in total revenue: 66%.

Another way in which one of our PeopleLaw interviewees had attempted to overcome the negative perception by investors of their sector was not to position their offering as being a lawtech solution, still less a PeopleLaw tech solution. The interviewee's preferred approach of projecting their company as a fintech rather than legaltech startup is arguably understandable.

'I would never position what we do as legal tech. [I would] position it as fintech... because I'll get a five times higher multiple if I'm in fintech versus legal tech.' – Founder of digital will-writing and probate startup.

That said, a failure by PeopleLaw lawtech ventures to seek ever greater levels of external funding was not always a sign of failure. Rather, it was because additional funding was not needed.

'We did another funding round... but we haven't spent a penny of it because we've been profitable.' – Founder of flexible legal resourcing venture.

In terms of the relationship between geography and investments made, perceptions were mixed. One of our more established, regionally based lawtech company interviewees recalled having to travel to London to secure funding, which was not available locally. By contrast, among other interviewees, access to funding by reference to geography barely registered as a consideration – especially in light of the pandemic. 'We're all Zooming now,' they said. Another interviewee commented that COVID-19 related travel restrictions had helped level the funding playing field, in terms of securing face time with would-be investors – including those based in the US.

3 Investec (2019) LegalTech & NewLaw Q219 update, July.
4 There is evidence that a greater proportion of fintech startups obtain funding than lawtech counterparts, and that the time elapsed from startup founding to first funding is shorter for fintech than for lawtech startups. M. Sako, M. Qian, et al. (2020) *Scaling up firms in entrepreneurial ecosystems: fintech and lawtech ecosystems compared* (available from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3520533)

'We had flights booked to go and meet different investors, and then I ended up spending three weeks sitting in my bedroom talking to investors all around the world, which actually... was pretty effective because I probably could meet five times more funds.' – Founder of digital will-writing and probate startup.

On the funders' side, one of our lawtech investor interviewees stated they were happy to invest in companies based anywhere in the world, so long as the business case was sound. By contrast, another of our interviewees – a US-based institutional investor – said they preferred to invest in their local market. This was not because of any overt preference for supporting local companies, more because competition for deals among investors was so much more intense elsewhere in the country, especially in Silicon Valley. *'We frequently lose deals to Silicon Valley because they don't do as much due diligence as we do, and they'll offer a higher price. So we tend to focus on [local location] to source deals.'* It is possible that these two considerations – investor competition and a culture of cursory due diligence – may partially explain why lawtech companies receive more funding in the US, compared with the UK.

Irrespective of which legaltech startup market segment they invest in, what makes an investor select one opportunity in preference for another – especially given that multiple competing investment opportunities are often available?

Across all investors we interviewed, was a need to understand the product/service being pitched to them before making an investment decision.

'I try to get realistic assumptions around revenue and profitability. Then I apply three criteria. First, do I get what they are trying to do? If they can't explain the product to me, their chances of selling it are pretty slim. Secondly, do I have confidence in the team, and thirdly, is this an important enough issue for a law firm IT director to prioritise?' – Angel investor backing several early-stage lawtech startups.

'I am interested in what I understand. Some can't explain their product well; I'm a networker and I've never been a lawyer. Being an outsider looking in, you can see the businesses that solve a problem; it's common sense why they are solving it and the market is scalable.' – Startup community and events organiser, founder and investor.

Beyond that, evaluation approaches varied. Some investors focused on less tangible qualities of the leadership teams, including their 'integrity' and 'resilience', while others took a more 'scorecard' based approach to their evaluation. Notably, this latter approach was taken both by a public sector investor making low-value seed investments and also a private sector investor making much higher-value investments. Among those investors we interviewed it was not, therefore, a case of 'small investments – informal appraisal, large investments – formal appraisal.' Rather, investor evaluation approaches varied by investor preference, not just by investment value.

'Number one is the management team. That can be integrity, credibility, style, and culture fit. Number two is the financial performance of the business. We do due diligence on the numbers, [we look at] their claimed performance versus their actual performance. Number three is industry knowledge.' – Partner in VC fund specialising in lawtech.

'You're backing people first. Do the founders have the skills to solve the problem they have identified? Is there or is there about to be a market opportunity for their idea? And do the founders have the fortitude and resilience that goes into building a business?' – Serial entrepreneur, investor, and mentor.

'We evaluate a company on 16 criteria. Each category has a rating from one to five, and we have a weighting on that rating, and then we end up with a score ... the top three make up about half the score.' – Partner in VC fund specialising in lawtech.

'We have a set of 10 questions that we use, and then our assessment process is one where we get in experts from the field. So, in this case, it would be accountancy, insurance, and legal services professionals, as well as technology professionals in the area of digital to assess those… applications against those questions and make a judgement as to the rank order of them.' – Public sector investor.

For some investors, legal sector domain knowledge is important – and could be a deal-breaker.

'I say no to lawtech investments unless one of the founders is a lawyer. You have to understand the weirdness of law firms. Lawyers are difficult customers because their job is fundamentally mitigating risk not embracing it.' – Serial entrepreneur, investor, and mentor.

The ability for a lawtech software solution to integrate with others is also a 'huge theme',

according to some, because they enable scaling via expanding the client base. The issue of solutions integration with other IT systems was also raised by our law firm interviewees in Chapter 4, and by 8% of survey respondents as a purpose of technology adoption (see Chapter 2 Table 2.7). The interviewees also highlighted software integration challenges as a possible barrier to lawtech adoption.

'Startups almost always start out as point solutions because they have to find some discontinuity that they can take advantage of in order to go to market. But [customers] will always choose a lower cost one-stop-shop over a disorganised set of point solutions. So, when we're [considering investing in] a new point solution, we look at whether it integrates with existing platforms and solutions.' – Partner in VC fund specialising in lawtech.

Support mechanisms for lawtech companies can take many forms – lawtech–focused incubators and accelerators (of which there are at least six in the UK), incubators and accelerators in related sectors, regulatory sandboxes, and government–backed support programmes.

Overall, law–firm backed incubators and accelerators tended to focus on products and services that add value to their practice, may bring the firm a competitive advantage – or at least allow the firm to position itself as being 'innovative'. By contrast, government and publicly funded initiatives were more open to supporting PeopleLaw ventures, targeting consumers. Not all of these schemes provide funding, however.

'There is a clear value exchange: they are building something that can address our pain points, and we can help them build better products. We look at the business of law and the practice of law… we also consider the trajectory of those businesses and whether, once they exit the [accelerator] they are likely to be adopted across the market.' – Head of law firm startup incubator/accelerator.

'Nobody got funding. But they got services. We helped distil [participants' objectives] into a three-month roadmap, and then we ran workshops, made introductions, provided data access. Each participant was allocated a … manager, and they had 30-minute check-ins once a week.' – Head of publicly funded lawtech programme.

While some incubators provide a dedicated physical space, all those we spoke to had moved online during the COVID-19 pandemic. This arguably enhanced the international reach of such schemes:

'You can be based in Singapore and build technology that solves problems in the UK and other markets too. Our cohorts have included startups based in the US and in Dubai who participate online. We don't ask anyone to relocate. The pandemic has made the world flatter and more connected.' – Head of law firm startup incubator/accelerator

Not all lawtech founders took part in lawtech focused incubators or accelerators. Reasons varied, and included diversity concerns, equity stake expectations, or that non–legal accelerators were deemed to be a better fit.

'We looked at a few, but they are not right for what we are trying to do, and they are not set up for women of our age group who have run businesses before, so these programmes have never appealed to us.' – Female founder, PeopleLaw startup.

'I applied for a government scheme for women founders, but I didn't get in. I have not considered an incubator or accelerator, because they often want equity options, and to be honest, I don't know what value they would add to the business.' – Founder, legal resourcing business.

'We were part of Women's Startup Lab, a Silicon Valley accelerator for female founders. It gave me access to mentors from tech giants like LinkedIn and SalesForce on how to scale up businesses. It is the sort of thing you probably have to go to America for.' – Founder, tech product targeting law firms.
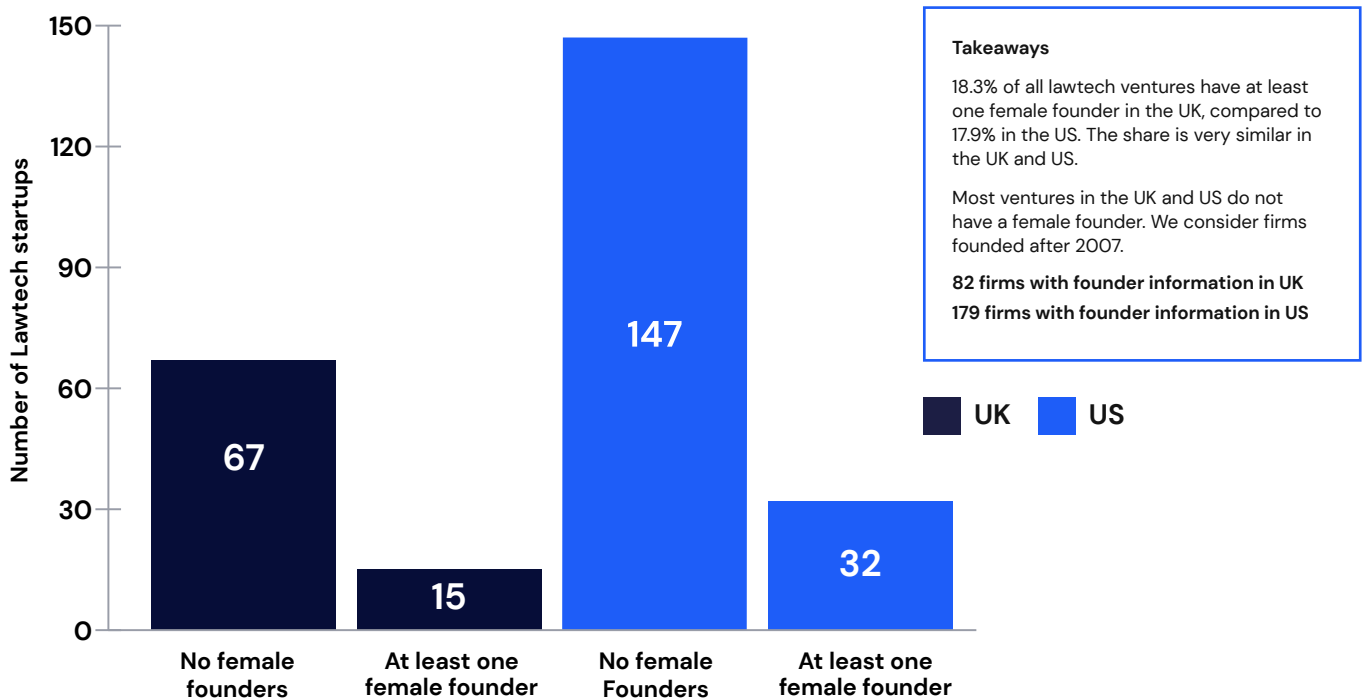
Gender diversity and inclusion in lawtech founding and funding

We now turn briefly to the issue of diversity and inclusion in lawtech founding and funding. This issue is of broad concern for the entrepreneurial ecosystem well beyond lawtech startups,[5] and also for the legal profession.

Our aim is to draw on the Crunchbase database to reveal the gendered nature of both founding and funding. We are not able to extend our analysis to investigate whether or not this gender bias in lawtech startups is better or worse than in other tech startup sectors.

There are 90 lawtech venture firms in the UK and 189 firms in the US with information about the gender of founders. Of those, 18.3% of all lawtech ventures have at least one female founder in the UK, compared to 17.9% in the US (see Figure 5.8). The share is therefore very similar in the two countries. However, within the UK, there is a striking concentration of female founders in the PeopleLaw market segment. As shown in Figure 5.9, 8% of BigLaw startups have at least one female founder, while 63 % of PeopleLaw startups have.

Figure 5.8: Gender composition of lawtech venture founders in UK and US

Takeaways

18.3% of all lawtech ventures have at least one female founder in the UK, compared to 17.9% in the US. The share is very similar in the UK and US.

Most ventures in the UK and US do not have a female founder. We consider firms founded after 2007.

82 firms with founder information in UK
179 firms with founder information in US

■ UK ■ US

Figure 5.9: Gender representation of founders in UK BigLaw and PeopleLaw ventures

BigLaw

8%

92%

PeopleLaw

63%

37%
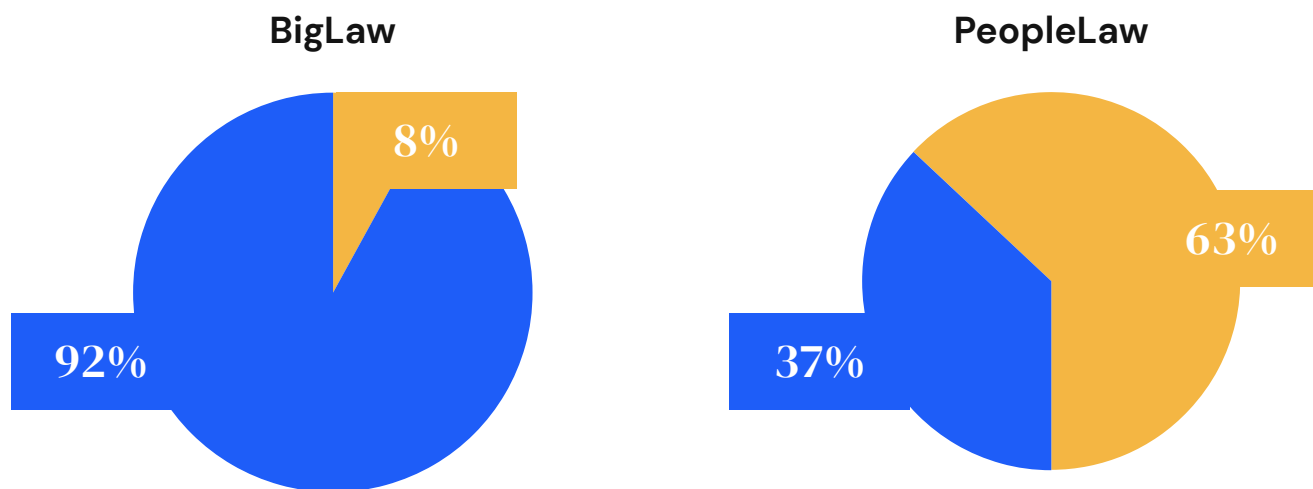
Share of venture with at least one female founder

■ No female founders   ■ At least one female founder

This project was not intended to explore the issue of diversity and inclusion fully, and further research is required. Our interviews therefore did not uncover why female founders tend to congregate in the PeopleLaw segment of the lawtech market. However, our interviews with lawtech founders revealed an apparent path dependency between their life experiences to date and the lawtech companies they created. Examples included:

- A lawtech venture founder directly inspired by a business they grew up living next door to

- A founder, who had had initially found it difficult to secure a career in the legal sector, who later created a law-related recruitment solution

- A founder who had experienced difficulties in their personal life, who went on to create an online legal service to address that same issue

- A founder who had created a service aimed at small law firms, who had previously worked for a small law firm.

It is possible that investors' general aversion to funding PeopleLaw ventures, coupled with founders' tendency to develop companies based on their life experiences, may partially explain the resulting gender differences in lawtech funding.

If so, one way to counterbalance the lawtech funding gender gap might be to support female founders with BigLaw experience to establish lawtech ventures in BigLaw, a market segment apparently more appealing to investors than PeopleLaw.

Moving on now to gender differences in funding: we first investigate the pattern from the perspective of ventures (Figure 5.10), followed by the perspective of investors (Figure 5.11), then of individual founders (Figure 5.12).

From a venture perspective, 19% of all funded lawtech ventures have female founders in the UK, compared to 15% in the US (see Figure 5.10). The number of startups in this Figure is lower than that previously shown in Figure 5.1, because not all legaltech startups have information on funding in Crunchbase.

Turning to the investor's perspective in Figure 5.11, lawtech ventures with at least one female founder, on average, obtain 38% of funding received by ventures with no female founder in the UK, compared to 29% in the US.[6] Ventures with at least one female founder therefore raise only a fraction of the money raised by ventures with all-male founding teams.

Lastly, by counting founders individually in Figure 5.12, 8% of total funding goes to female founders in UK, compared to 5% in US. Therefore, the UK has seen a slightly better gender balance than in the US, but in the context of the US lawtech sector obtaining 7.8 times more funding in absolute terms than the UK sector.

Figure 5.10: Gender composition of funded ventures in UK and US

Takeaways

19% of all funded lawtech ventures have female founders in the UK, compared to 15% in the US.

The number of startups is lower than before as we show here only startups with funding information in Crunchbase.

UK: 42 startups
US: 105 startups

■ UK ■ US

Chart data:
- No female founders (UK): Count 34
- At least one female founder (UK): Count 8
- No female founders (US): Count 89
- At least one female founder (US): Count 16

Y-axis: Percentage of ventures with funding

Figure 5.11: Relative distribution of funding by gender of lawtech founders

Takeaways

37% of average funding for ventures with no female founder in the UK, compared to 29% in the US.

Ventures with at least one female founder raise less money per venture in the UK and the US.

UK $9M overall average funding
US $28M overall average funding

■ UK ■ US

Chart data:
- No female founders (UK): $10.4m
- At least one female founder (UK): $3.8m
- No female founders (US): $31.7m
- At least one female founder (US): $9.2m

Y-axis: Percentage of funding for ventures with no female founders

Figure 5.12: Distribution of funding in lawtech by gender of founders

Takeaways

8% of funding goes to female founders in UK vs 5% in US.

7.8 times more funding in US than in UK.

Funding for firm with founders of two genders is counted twice, once for male and once for female.

UK $383M total funding
US $2,971M total funding
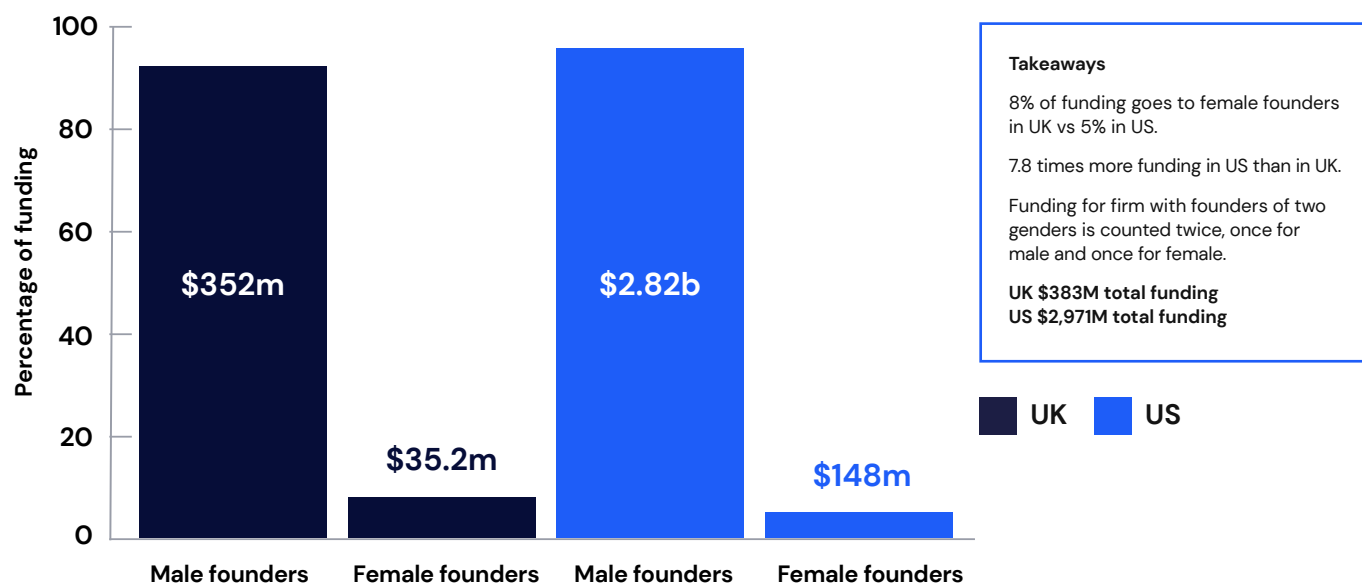
All of the lawtech venture founders we interviewed, male and female alike, had secured third-party funding. Indeed, one female founder interviewee had secured funding worth millions of pounds. Funding sources included grants, seed funding, angel investments and – in some cases – funding by institutional investors. On the basis of these interviews alone, we are therefore unable to determine whether gender played any overt role in the funding levels received by our interviewees. That said, some of the funders we spoke to were acutely aware of – and annoyed about – the overall mismatch in funding between male and female-led lawtech companies. To mitigate the risk of gender bias in early-stage funding, one of our female lawtech founder interviewees said they had deliberately sought debt funding from a bank that uses an algorithm rather than a human to make funding decisions – because the upshot of that process was that 'they fund way more women than anybody else, just based on the numbers'.

Acquisitions and exits of lawtech startups

Lawtech startups, just like other tech startups, consider exit options including being acquired by other firms. We capture all acquisitions in the lawtech sector in the UK and the USA reported in the Crunchbase database.

Reflecting the highly fragmented nature of the global lawtech market, Figures 5.13 and 5.14 indicate a wide range of industry acquires, many only making singular acquisitions. In legal technology, Fastcase, Litera and Mitratech are some of the few companies to have made multiple lawtech company acquisitions across the US and UK. The acquired firms include: Docket Alarm (2018), NextChapter and Judicata (both 2020) – acquired by Fastcase; Workshare (2019) Allegory Law (2020) and Foundation Software Group (2021) – acquired by Litera; and Viewabill (2016) and Contract Room (2021) – acquired by Mitratech. Other notable industry players include Elevate and Thompson Reuters for their acquisitions of LexPredict (2018) and CaseLines (2020), respectively.

Among investors, views on the sector's consolidations to date are mixed. On the one hand, one early-stage investor lamented that the tendency for startups to be acquired by much larger players led to the absence of a 'vibrant' market for middle-sized lawtech companies. On the other hand, another investor welcomed consolidation of what were essentially multiple point solutions into more coherent single products. Here, they cited document management, contract automation, contract lifecycle management and contracts analytics as being one obvious candidate for sector consolidation, and eDiscovery data collection and review as another. 'The providers that ultimately end up winning that game will be those who can consolidate those functions and offer them as a one-stop-shop.'

Figure 5.13 Acquisition of lawtech companies in the UK

Year	Acquisition target and acquirer
2012	Workshare by SkyDox Tikit by BT
2013	LawLogix Group, Inc. by Akoya Capital Partners Civica by OMERS Private Equity
2014	Eclipse Legal Systems by Capita
2015	LawLogix Group, Inc. by Hyland Software
2016	Sibyl Groupe Conseil by PiiComm
2017	Civica by Partners Group
2018	LVP by Shoppable Riverview Law by Ernst & Young Miles 33 by Ethos Partners

Year	Acquisition target and acquirer
2019	IntaForensics by CYBER1 Workshare by Litera BrightOffice Limited by ClearCourse Partnership
2020	Linetime Ltd by Practice Evolve Tikit by Advanced Anexsys by Xact Data Discovery CaseLines by Thomson Reuters SDL plc by RWS Group
2021	IntaForensics by Forensic Access Miles 33 by Naviga Arachnys by AML RightSource Opus 2 International by Astorg Hubshare by M-Files Repstor by Intapp

Figure 5.14. Acquisition of lawtech companies in the US

Year	Acquisition target and acquirer
2012	Modus LLC by Azalea Capital Deltek by Thoma Bravo Digital Reef by TransPerfect
2013	StoredIQ by IBM
2014	FRONTEO Government Services by FRONTEO Equivio by Microsoft
2015	ARX by DocuSign Consilio by Shamrock Capital Advisors PGi (Premiere Global Services) by Siris Capital Group Ngage Live Chat by Internet Brands ArcMail by iGambit Innography by CPA Global AbacusNext by Providence Equity Partners
2016	Nexidia by NICE Systems Diligent by Insight Partners Atlantic Associates by Trillium Staffing Solutions Viewabill by Mitratech Quick Base by Welsh, Carson, Anderson & Stowe Gavel & Gown Software by AbacusNext AppealTrack by Tax Compliance EPIQ by OMERS Private Equity Integreon by NewQuest Capital Partners Clarivate Analytics by Onex Deltek by Roper Technologies
2017	Software Technology, Inc. by Thompson Street Capital Partners TrialWorks by Ridge Road Partners NetDocuments by Clearlake Capital Group Brainspace by Cyxtera Technologies Bill4Time by ASG HotDocs by AbacusNext Allegory Law by Integreon
2018	Docket Alarm by Fastcase Kroll by Duff & Phelps Consilio by GI Partners Apttus by Thoma Bravo UnitedLex by CVC Capital Partners CosmoLex by Software Technology, Inc. LexPredict by Elevate Services Wrike by Vista Equity Partners eBrevia by Donnelley Financial Solutions

Year	Acquisition target and acquirer
2019	Quick Base by Vista Equity Partners HelloSign by Dropbox Merus by ASG Justis by vLex SimpleLegal by Onit KLDiscovery by Pivotal Acquisition NextChapter by Fastcase Lexitas by Apax Partners
2020	Harbor by BitGo Seal Software by DocuSign One Legal by InfoTrack UpCounsel by Enduring Ventures ClearAccessIP by IPwe UpCounsel by LinkedIn O P Solutions by Anaqua NexLP by Reveal Venio Systems by Software Growth Partners Allegory Law by Litera Judicata by Fastcase MyCase by Apax Partners Headnote by ASG LegalTech TimeSolv by ProfitSolv Rocket Matter by ProfitSolv Globanet by Veritas Technologies Datasite by CapVest Associates Cicayda by TCDI
2021	Foundation Software Group by Litera Wrike by Citrix Systems Brainspace by Reveal ClientPay by AffiniPay Planet Data by Veristar ArcMail by Data443 Risk Mitigation Docuvision by OneTrust AbacusNext by Thomas H. Lee Partners PactSafe by Ironclad Consilio by Stone Point Capital ContractRoom by Mitratech

Government and regulators' approaches to promoting lawtech startups

Earlier in this chapter, the main focus of our analysis was on how the private sector is supporting the development of the lawtech sector, including investment in startups. Here, our focus shifts to government support for the sector.

In recent years, the UK government – in various guises – has actively supported the growth of the lawtech sector. Government departments and regulators directly involved have included the Department for Business, Energy and Industrial Strategy (BEIS), Ministry of Justice (MOJ), Competition and Markets Authority (CMA), Legal Services Board (LSB) and Solicitors Regulation Authority (SRA). As part of our research into the lawtech ecosystem, we interviewed representatives from several of the above-mentioned organisations. Our interviews had three main objectives: to better understand the support already given to the lawtech sector; to learn about the tangible outcomes and legacies of various lawtech support schemes; and to enquire about future support activities.

The support given by these various bodies extends beyond financial support alone – although funding has been offered – to also include policy and regulatory support and guidance. Because the nature of this support varies, our analysis will do likewise. And, because some support schemes involved multiple stakeholders, our unit of analysis is the support schemes themselves, rather than the organisation(s) involved in them.

Direct funding of lawtech startups

In recent years, direct financial support from various sources has been made available to lawtech startups via government grants. The originator for many of these grants is BEIS, with funding administered by UKRI / Innovate UK.

In one funding stream, the SRA – together with its project partner NESTA – successfully bid for funding from the Regulators' Pioneer Fund (RPF), a scheme which encouraged regulators to support innovative activities within their sector. Having secured approximately £950,000 of funding, the SRA and NESTA then operated an 18-month support programme for lawtech startups, known as the Legal Access Challenge (LAC), between 2019 and 2020. Bidding for the LAC was competitive, and eligibility limited to lawtech companies that aimed to improve access to justice in the consumer and small and medium-sized enterprises (SME) markets. A total of eight companies were selected to take part in the LAC, securing a no-strings development grant of £50,000, plus associated support. Two of the most promising cohort companies each received an additional £50,000 in prize money to further develop their tech solutions, which are assisting access to legal support.

In a second UKRI-originated funding stream, 23 projects shared £12.4 million of funding from the Next Generation Services Industrial Strategy Fund, to undertake legal AI and data analytics-related research. Each funded scheme involved a consortium of organisations, including law firms, universities, citizens advice services, lawyers' groups and the Royal Courts of Justice. Some of the technology partners on the projects were generic in their focus, but others might be regarded as specialist lawtech companies.

In a third funding stream in 2019, a small number of lawtech startups received funding from Innovate UK's Smart Grants programme, a sector-agnostic scheme that aimed to encourage research and development by UK-based SMEs. Financial support offered to lawtech companies to date includes a £46,000 grant to develop an app aimed at lower-means consumers in need of legal support, and a £237,000 grant to prevent money laundering in the UK property market.

A fourth funding stream for lawtech companies was explicitly pandemic-related. In December 2020, one law firm and five lawtech companies each received £100,000 from the sector-agnostic Sustainable Innovation Fund. The fund was open to businesses that had suffered as direct result of COVID-19, with the aim of keeping 'ideas alive during a climate of uncertainty'.

According to those involved in co-funding these various lawtech companies, the principal reasons for doing so was to support the greater use of digital technology, including in the legal sector. Historically, the legal sector has undertaken little in the way of research and development (R&D),

particularly in relation to the development of new technology-enabled services. The pioneer funding provided was therefore mainly intended to facilitate R&D that would either not happen at all without such funding, or only happen at a slow pace. The funding provided reflected the exploratory nature of the projects supported, with awards typically worth between £138,000 and £309,000. And, while the funding was not intended to support the rapid scale-up of lawtech companies, this has nevertheless occurred in some cases. Reflecting on this outcome for the supported lawtech companies, a spokesperson for UKRI observes that: 'There's a couple that were barely founded before they applied to us, and now have 20+ employees. There's one that, following its more recent investment round, is now valued at £13 million after the year's activity. That's quite a nice legacy.'

Looking forward the Government, via HM Treasury, has recently published *Build Back Better*,[7] a high-level strategy document. This document includes a specific commitment to encourage the development of regtech apps; regtech is arguably a companion sector to lawtech. To aid this specific development, *Build Back Better* talks of converting 'UK business legislation into machine-readable data'. In the meantime, ongoing lawtech support is more likely to come from more generic government funding sources. These might include the ongoing UKRI Smart Grants programme, or the latest round of the Regulators' Pioneer Fund. The SRA and other regulators are able to make lawtech-related proposals for this fund, which was announced in May 2021.

Lawtech sub-market support – digital comparison tools

In recent years, the Competition and Markets Authority (CMA) has attempted to encourage consumers to shop around for legal services far more than they currently do – including via the use of digital comparison tools (DCTs)

and websites.[8] In a legal services setting, the CMA's definition of a DCT is a service that helps 'consumers compare providers of legal services'. And, in terms of the functionality of such services, the CMA's previous research has highlighted the importance of a) price comparison capabilities and b) capability to allow consumers to select providers directly.[9]

7 HM Treasury (2021) Build Back Better: our plan for growth, 3 March 2021.
8 Competition and Markets Authority (2020) Review of the Legal Services Study in England and Wales, 17 December 2020
9 Competition and Markets Authority (2016) Legal services market study: Final report, 15 December 2016.

In order to facilitate access to such information by DCT operators, the CMA has taken an activist stance in relation to the publication of relevant data. Firstly, the CMA has required frontline legal regulators to impose a mandatory price transparency regime on legal service providers for specific types of legal work, thereby allowing consumers to compare prices for such services. In addition, the CMA has also encouraged the creation and dissemination of standardised quality metrics. Here, the aim of these quality metrics is to enable consumers to make informed choices about the quality of their legal advisors.

Possibly because much of this regulatory activity has only occurred in the past three years, not all DTCs currently make use of the data that is now available to them. In terms of vendor provision, Moneysupermarket.com permits price comparison between legal service providers, but only in relation to conveyancing. By contrast, Trustpilot covers a broader range of legal services, but does not include any price transparency functionality. Moneysupermarket. com does not include quality metrics, whereas Trustpilot has quality metrics based on individual

and aggregate consumer reviews. Alongside these mainstream DCTs, there are a number of DCT providers specialising in the legal services market. Some, such as The Law Superstore, provide price comparison for a range of legal services, while Review Solicitors provides quality metrics for all providers regulated by the SRA.

In terms of future regulatory activity in relation to DCTs, our impression is that the main driver of future activity is likely to come from the frontline regulators, including the SRA. Indeed, a pilot scheme on improving public access to information when choosing a legal service provider has already begun. This initiative is being operated jointly by the SRA, Council for Licenced Conveyancers, Bar Standards Board and CILEx Regulation.[10] A total of 9 DCTs, mostly legal sector-focused, with a small number of more generic DCTs, are currently taking part in this pilot. There are early signs that this pilot could make a real difference to the engagement of law firms with DCTs: two of the DCTs taking part in the pilot have reported a significant increase in regulated firms engaging with their platforms since the pilot began.[11]

General sector support – guidance, access to proprietary data, and sector awareness-raising

Here, we outline a Ministry of Justice-funded scheme, which offered four strands of assistance for supported lawtech companies: advice on regulatory compliance and (separately) ethics, networking and collaboration support, and access to data. The vehicle for this support was LawtechUK's sandbox pilot hosted by Tech Nation. A total of five startups have taken part in the sandbox pilot to date, with more to follow later this year. These companies do not receive direct financial support for taking part in the sandbox. They do, however, benefit from access to the above-mentioned support schemes. Of these support schemes, regulatory compliance support and access to data arguably have the widest potential for scale-up.

Starting first with regulatory compliance support: LawtechUK sandbox participants are able to obtain the assistance of the Regulatory Response Unit (RRU) – a grouping of 13 regulators, including the SRA and the other legal regulators from across the UK, plus the FCA and ICO. The aim of the RRU is to provide a mechanism by which lawtech ventures can quickly obtain regulatory advice on nascent or challenging questions and issues that cross regulatory boundaries: one of those involved in developing the scheme likened it to a 'bat phone'-style resource. At present, access to the RRU is limited to sandbox participants, limiting its market impact. However, those involved in the scheme are considering how to extend access to the RRU to include non-sandbox lawtech companies. As we have noted elsewhere in this report, including Chapter 2, which reports on survey evidence, innovators and technology adopters regard advice on what is permitted from regulators as a highly valued resource.

10 SRA (2021). *Improving comparison information for consumers – take part in our pilot,* 21 January 2021
11 SRA (2021). *Firms invited to join customer review pilot,* 21 June 2021

In the meantime, the RRU initiative also resulted in launching the Regulatory Navigation Tool (RNT). The RNT offers two main areas of guidance for lawtech companies. Firstly, it identifies which areas of legal work sit inside – and outside – those reserved exclusively for authorised legal practitioners. That is, the RNT indicates where lawtech startups may usefully focus their activities, without undertaking work that is reserved exclusively for lawyers. Secondly, the RNT also provides guidance on where lawyer-specific regulations, and regulators, are likely to impact on the way that lawtech companies operate. For example, the RNT offers insights into the rules and regulators that play an oversight role in the preparation of court documents, probate and oaths, to make it easy for lawtech companies to navigate who to speak to and when. The RNT also clarifies the regulations and regulators that might impact on lawtech startups' revenue models. For example, it briefly sets out the various legal regulators' current positions on matters such as contingency and referral fees. Feedback is sought to ensure the RNT is as useful as possible for lawtech companies.

In relation to data, sandbox participants have access to a 'data matchmaking' service from LawtechUK when seeking access to propriety data from private organisations. This type of data is often required by AI-driven lawtech companies, in particular, to train the models that underly their service offering. As with access to the RRU, LawtechUK's data matchmaking service is currently only open to sandbox participants, limiting its scalability. However, LawtechUK has also produced open access tools to support access to data, including a checklist for lawtech companies that wish to approach third parties on their own account, with a view to sharing their data. Also included in this package of materials is a data sharing agreement template which can be used by two or more parties. We understand that a multiparty data sharing proof of concept is currently being developed by LawtechUK.

This work is being undertaken in association with the AIR Platform, a UKRI-funded 'pioneering data platform for privacy-preserving data collaboration between regulators, regulated industries and their professional services providers such as lawyers and accountants'. The aim of this proof of concept is to demonstrate the opportunities of compliant sharing of data insights using privacy enhancing techniques. LawtechUK calls this approach 'open legal'. In the long-term, data sharing may see a step change if the open legal initiative can be implemented and scaled.

Additionally, and more focused on the wider legal technology market, LawtechUK has also recently launched the LawtechUK Hub. Among the services offered on the Hub is an interactive database of lawtech startups and scaleups, and a series of lawtech-related 'bitesize' courses. The database of lawtech startups and scaleups includes numerous insights into each company listed, including funding received, estimated company valuations, headcount trends and current vacancies. The courses, meanwhile, cover topics such as AI, cloud computing, data science, distributed ledger technology, legal process automation and smart contracts. There are also resources relating to the applications of these technologies.

Finally, the ongoing LawtechUK work programme also includes:

- an authoritative legal statement on the law relating to crypto assets and smart contracts

- a set of digital dispute resolution rules for disputes arising in connection with such technologies

- a further workstream on smart contract use cases

- a feasibility study and proof of concept for a technology-enabled dispute resolution platform for SMEs

- a website for the global justice community deploying technology solutions post COVID-19, known as remotecourts.org.

A register of unregulated legal service providers?

The issue of whether a register of unregulated legal service providers (RULSP) should be created has been debated extensively by government officials, regulators and other interested parties in recent years.[12] Our online survey also saw some respondents requesting such a register (see Chapter 2). This scheme has the potential to affect lawtech companies, should they be deemed to fall within the scope of such a register.

After speaking to stakeholders across government, our principal impression is that those involved in such discussions about RULSP are acutely aware of the potential complexities of such a scheme. Complexities derive in part from scoping out the legal services sector with competing criteria along demand, supply, and technological dimensions (see Chapter 3). Moreover, section 12 of the Legal Services Act 2007 is ambiguous on what precisely is 'legal activity': it does not appear to provide clarity as to whether technologies that support the provision of 'legal advice' or 'assistance' might fall in scope, or out of scope, of a 'legal activity'.

Another issue that appears to be entwined with the RULSP concept is whether such a register would effectively become an accreditation scheme for those providers who join it. Here, a precedent for the difficulty in straggling the line between providing useful information about lawtech solutions (in general), and the possible perception of endorsement of specific companies, is the Singaporean Ministry of Justice report: *The Road to 2030: Legal Industry Technology & Innovation Roadmap report*.[13] This report explains lawtech solutions by use case, and then offers illustrative examples of individual providers. Should it be desired that this outcome is avoided, an alternative approach might be the creation of a lawtech 'standards list' – ie a guide to the legal, regulatory and industry accreditations that lawtech companies should comply with. The aim of such a standards list would be to help law firms purchase services from lawtech startups that complied with such standards. However, this list would not require the endorsement of specific lawtech companies, just the standards they adhered to.

12 Competition and Markets Authority (2020) Review of the Legal Services Study in England and Wales, December. Legal Services Board
(2021) Reshaping Legal Services: A Sector–wide Strategy, March 2021; Stephen Mayson
(2020) Reforming Legal Services: Regulation Beyond the Eco Chambers, London: Centre for Ethics and Law, University College London.
13 See www.mlaw.gov.sg/files/news/press-releases/2020/10/Minlaw_Tech_and_innovation_Roadmap_Report.pdf

Chapter Summary

In terms of the total number of lawtech startups, the UK lawtech ecosystem is fairly well balanced, with BigLaw ventures only slightly outnumbering PeopleLaw ventures. However, beyond that superficial similarity, large differences exist.

BigLaw lawtech startup founders tend to be male, while PeopleLaw startup founders tend to be female. BigLaw lawtech startups may be supported by BigLaw firms in law firm incubators and accelerators. By contrast, PeopleLaw lawtech ventures tend to be supported by governments in more ad hoc schemes. BigLaw lawtech companies receive nearly all of venture capital funding at the expense of PeopleLaw lawtech ventures. For more information on public and private funding of lawtech startups, please see the Annex Report Chapter 3 on the legal technology ecosystem: funding, scaleup and policies.

It will be interesting to see how the UK government's new focus on supporting regtech, as announced in its recent *Build Back Better* document, will impact on future lawtech funding support. Given the funding in favour of startups serving the BigLaw market segment, it remains to be seen if any future regtech funding might be directed towards the currently underserved PeopleLaw market. The onus for future development in lawtech ventures, particularly in the PeopleLaw space, would otherwise be very much on the company founders themselves.

Implications for Policy and Regulation

INTERACTIVE CONTENT LINKS
6.1 Implications from key findings
6.2 Implications for policy and regulation
Chapter Summary

This concluding chapter summarises the key findings from our independent research on technology and innovation in legal services. The main purpose of such a summary is to draw evidence-based implications for future policy and regulation.

Evidence for the study is based on the online survey of SRA-regulated firms and interviews which took place in spring 2021. They elicited fresh responses about the impact of the COVID-19 lockdown on technology use and innovation. The study also draws evidence from the Burning Glass database of online job postings, and from the Legal Technology Hub and Crunchbase databases for lawtech startups. This study is unique in being able to distil insights from a wide range of evidence.

We summarise the findings by answering the following key research questions raised by the Solicitors Regulation Authority when commissioning this research.

1. What types of technology are legal service providers using or planning to use? What innovations have they made?

2. What are drivers of, and barriers to, innovating and using technology?

3. Which areas (market segments, areas of law, geographic region) of the legal market are more likely to innovate or adopt legal technology?

4. How are innovation and lawtech ventures funded? Who is investing and where is the funding derived?

5. How are technology and innovation affecting equality, diversity and inclusion for different types of providers and consumers with unmet legal needs?

6. What are the emergent risks – including regulatory risks – and unintended consequences resulting from the use of technology, particularly those that might need immediate regulatory attention?

7. What is the nature of interaction between firms' business models and the levels of innovation and use of technology?

The first section provides answers to these questions, drawing implications for practice and for policy where appropriate. The second section then develops implications for policy and regulation. The aim here is not to make specific recommendations, but to highlight areas where further work and action may be needed, and the pros and cons of each approach to addressing an identified issue. We focus on three areas, namely: promoting innovation and technology use while taking account of multiple policy objectives; facilitating user trust in legal technology and data; and ensuring that the skills in the sector meet the needs of the digital age. We identify pathways to level the playing field between two market segments, one serving individual consumers and small businesses (PeopleLaw) and the other serving large corporate clients (BigLaw). We also discuss different regulatory principles to promote innovation that are consistent with competition policy and consumer protection.

Implications from key findings

In addressing each of the seven questions, we make references to Report Chapters where more details can be found. Where appropriate, we draw explicit links in findings across chapters.

1. What types of technology are legal service providers using or planning to use? What innovations have they made?

Delivery innovation has been most prevalent in the last 12 months. Half of survey respondents said they 'changed the way we deliver some or all of our services', while one in five respondents said they 'changed the way we market some or all of our services', and less than one in six 'introduced one or more new service(s)' (Chapter 2). Our interviewees offered illustrative examples of services delivered online, some of which were developed in direct response to the pandemic. Other online tools, while not directly pandemic related, have allowed law firms to cut the cost of service delivery to clients (Chapter 4).

Innovation is associated with new technology adoption, but they do not necessarily occur at the same time. For example, two-thirds of survey respondents introducing new services also introduced new technology in the last 12 months, but the other one-third did not. Interviews revealed good examples of innovation that rely only partially on new technology, including the offering of integrated solutions for customers by bundling legal and non-legal services (see Chapter 2).

Planned use of legal technology is marked by interactivity with consumers. The top five types of legal technology in use are:

- 'videoconferencing with clients'
- 'storing data in the cloud'
- 'practice management software'
- 'legal research software'
- 'e-verification/e-signature'.

Future planned use is marked by enhanced interactivity, particularly with the adoption of 'online portals for matter status updates' (21.2% planning to use vs 15.4% currently using), 'interactive websites to generate legal documents' (19.5% planning vs 9.9% using), and 'chatbots or virtual assistants' (14.0% planning vs 6.2% using) (Chapter 2).

Implications for practice: the COVID-19 lockdown has brought about a step change in the use of technology especially to deliver services. More providers are also planning to migrate their interaction with consumers online.

2. What are drivers of, and barriers to, innovating and using technology?

The main purposes of adopting legal technology are to improve service quality, efficiency, and staff flexibility, according to the online survey of SRA-regulated legal service providers. Also, those who were planning to adopt legal technology were going to do so to increase demand for their services (Chapter 2).

Barriers to innovating include uncertain business benefits and lack of strategic priority. The top five reasons for not innovating are:

- 'uncertainty about the expected business benefits'

- 'not a strategic priority'

- 'it isn't needed at my firm'

- 'lack of staff expertise'

- 'possibility of unexpected legal or regulatory risk in the future' (Chapter 2).

Barriers to using legal technology include scarce financial and human resources, and regulatory uncertainty. The most significant barriers to adopting legal technology are:

- 'lack of financial capital to invest in technology'

- 'lack of staff expertise to assess and implement technology'

- 'regulatory uncertainty or barrier' (Chapter 2).

A mix of regulatory risks and risks arising from lack of confidence in technology outcomes are discouraging providers from adopting legal technology. The top three risks that discouraged survey respondents from using or planning to use legal technology are that:

- 'the investment in it might not bring any business benefits'

- 'it may pose unexpected legal/regulatory risk to the business'

- 'support from the technology provider may be inadequate' (Chapter 2).

The top regulatory uncertainty or barrier to adopting legal technology concerns the handling of data. The top three regulatory barriers are:

- 'client confidentiality and data protection requirements'

- 'professional indemnity insurance (PII) requirements'

- 'not knowing if wider regulations and legislation allows what we are considering' (see Chapter 2).

Some of our interviewees were not sure whether their innovative services would be covered under the terms of their practice's main PII policies. If in doubt, some said they discussed this issue directly with their insurance providers (Chapter 4).

Implications for practice. In order for more legal service providers to adopt legal technology, the findings direct our attention to the need to address constraints resulting from absence of financial capital, staff expertise, and regulatory certainty. Promoting innovation, by contrast, requires raising awareness about the resulting business benefits.

3. Which areas (market segment, areas of law, geographic region) of the legal market are more likely to innovate or adopt legal technology?

BigLaw providers are more innovative and make greater use of legal technology than PeopleLaw providers. Robust survey evidence indicates that providers in the BigLaw market segment (with a corporate client base) are innovating and adopting legal technology more than providers in PeopleLaw (with individual and small business clients) (Chapter 2). [1]

Legal technology adoption is prevalent in certain areas of law that are associated with ease of standardisation. In PeopleLaw, the top five areas of law with technology adopters are conveyancing, wills and probate, family, company or commercial, and litigation and dispute resolution. In BigLaw, the top three areas with tech adopters are litigation and dispute resolution, real estate/construction/planning, and corporate mergers and acquisitions (Chapter 2).

In terms of geographic region, innovation and technology adoption in the legal sector are concentrated in major cities. The labour market perspective offered by the Burning Glass data of online job postings demonstrates a geographic concentration of job opportunities in major cities including London, Manchester, Birmingham, Bristol, Leeds, and Liverpool. In terms of the proportion of jobs requiring lawtech skills, Belfast came top, ahead of London (Chapter 3), possibly reflecting the city's longstanding focus as a legal

practice nearshoring hub (See Annex Report desk research 3). Lawtech startups in the UK are even more highly concentrated in London, particularly for those that target BigLaw corporate clients (see Chapter 5).

The legal sector not regulated by the SRA has greater access to lawtech skills than the SRA-regulated sector. The Burning Glass database shows that there are three times more job postings in the non-SRA sector compared to the SRA-regulated sector. The proportion of lawyers' job postings requiring lawtech skills is similarly low – at 1–2% – in both sectors. So the more rapid growth in employment opportunities in the non-SRA sector gives this sector greater access to lawtech skills (Chapter 5).

Implications for practice. The areas of legal services that are innovating or adopting legal technology faster are the BigLaw (rather than PeopleLaw) segment, and specific areas of law offering standardised services. Job opportunities requiring lawtech skills are growing faster in major cities and in the sector not regulated by the SRA. Clustering in innovation and lawtech activities has brought benefits to legal service providers. At the same time, some segments and areas may benefit from policies to promote levelling up.

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1 Our finding is consistent with the Law Society's lawtech adoption research for B2B and B2C market segments. See Law Society (2019) Lawtech Adoption Research, February.

4. How are innovation and lawtech ventures funded? Who is investing and where is the funding derived?

Lawtech ventures in the UK and the US tend to be funded by venture capital, according to the Crunchbase database. However, angel investing is not always disclosed, and is likely to be more prevalent than what one can surmise from such a database. Investors also include law firm accelerators, the government, and acquirers – incumbent data providers and corporations – contributing to the consolidation of the lawtech venture ecosystem (see Chapter 5).

Funding for lawtech startups in the UK is smaller than funding in the US. UK lawtech startups raised a total of 853 million USD, while US lawtech startups raised a total of 5.98 billion USD. This difference appears to be in part due to the availability of venture funding in Silicon Valley. This difference is also reflected in the average funding received per venture: 9 million USD in the UK compared to 28 million USD in the US (Chapter 5).

Lawtech startup ventures in BigLaw received a giant share of funding, compared to PeopleLaw ventures. With 75 funding rounds (counting the number of times startups receive funding) in BigLaw and 23 funding rounds in PeopleLaw in the UK, only 3.2% of the total funding flowed into the PeopleLaw sector. Venture capitalists look for financial returns that are realised via scaling up their investment targets. Their reluctance to invest in PeopleLaw ventures reflect most PeopleLaw startups' difficulty in growing the size of their operations (see Chapter 4).

Implications for practice. In order to promote more lawtech startups in PeopleLaw, they could be better funded either by sources other than venture capital, or else by venture capital if startups could pursue more opportunities to scale up. Scaling up could be achieved by selling services that lend themselves to long-term subscriptions rather than one-off transactions, and by targeting markets beyond legal services.

5. How are technology and innovation affecting equality, diversity and inclusion for different types of providers and consumers with unmet legal needs?

This study addressed the issue of equality, diversity and inclusion, primarily in the context of lawtech startup founding and funding. This issue requires further investigation as to its causes and remedies.

Lawtech startup founding and investment are heavily skewed in terms of gender balance. In the UK, lawtech ventures with at least one female founder constituted fewer than 20% of all lawtech ventures. Among the funded ventures in the UK, only 19% have at least one female founder. Moreover, the average level of funding raised by ventures with at least one female founder, 3.8m USD, is only 38% of average funding, 10.4m USD, raised by ventures without female founders.

There is also a striking difference by market segment, with 63% of PeopleLaw startups, compared to 8% of BigLaw startups, having at least one female founder in the UK (Chapter 5).

Implications for practice. In order to promote more female lawtech startup founders, attention could be given to their career trajectory prior to founding the startup. This could aim to directly promote female startup founders in BigLaw.

6. What are the emergent risks – including regulatory risks – and unintended consequences resulting from the use of technology, particularly those that might need immediate regulatory attention?

Emergent risks in using legal technology include engaging lawtech startups that might fail, and broader technology risks. These risks are addressed in a systematic manner by some larger law firms, but not by other firms. Measures to deal with startup risks included a rigorous initial approval process, following procurement processes, and actively monitoring the startup company for signs of distress. Interviewees also mentioned lack of clarity in the extent of coverage of technology risks (including cyber risks) in professional indemnity insurance (PII). Some survey respondents (see Chapter 2) and interviewees (see Chapter 3) looked to the Solicitors Regulation Authority and Law Society to work with insurance providers to clarify the coverage of technology risks and to lower the cost of insurance.

Information technology (IT) is seen by some providers as a means to mitigate risk. Legal service providers mentioned how technology – such as a specialist security software – was helping them to mitigate against risks in anti-money laundering and other areas. Moving away from traditional working practices, such as sending password-protected Word documents to clients by email, improves security by moving client matter management online, or by using secure portals as their default client service delivery mechanism (Chapter 3). As one survey respondent put it: 'Biggest risks are security and not making the best use of IT.'

Implications for practice and policy. Mitigating risks arising from the adoption of legal technology requires a multi-pronged approach, involving providers implementing a robust internal process, improving access to PII, and the SRA reviewing how it classifies and communicates risks relating to the adoption of technology (see Chapter 4).

7. What is the nature of interaction between firms' business models and the levels of innovation and use of technology?

A business model is a representation of how firms satisfy customer needs by creating value and capturing value (ie making profit).[2] The traditional business model for law firms involves the delivery of bespoke (customised) legal advice to clients, who pay by the hour (billable hour). Innovation and technology adoption have created different business models. There are at least three new business models, as follows:

- Legal operations to improve the efficiency of workflows

- Legaltech solutions to automate certain tasks that human lawyers used to do

- Transactional platforms which are portals to automate transactions, including matching the demand and supply of lawyers.

These new business models require expertise other than legal expertise. So they might be easier to adopt if providers are Alternative Business Structures (ABSs), permitted in England and Wales, and in a small number of US states (such as Arizona and Utah). There are also important differences in ease of adoption of new business models in BigLaw and PeopleLaw.

BigLaw sector

In the BigLaw sector, legal service providers can lower the cost of legal service delivery by developing technologies in-house or sourcing them from third-party suppliers. There is often a plentiful supply of such third-party suppliers, particularly for matters such as contract review or eDiscovery.

2 The discussion on business models is based on John Armour and Mari Sako (2020) 'AI-enabled business models in legal services: from traditional law firms to next-generation law companies?', *Journal of Professions and Organization*, 7: 27–46; John Armour and Mari Sako (2021) 'Lawtech: Levelling the Playing Field in Legal Services?', SSRN working paper.

Major legal service providers, including law firms and alternative providers, such as the Big Four accounting firms, and their clients are also large, so they are better able to exploit scale economies to achieve cost reduction. Moreover, corporate clients typically have in-house lawyers who are themselves innovating and using legal technology. Client organisations could therefore implement the new business models in-house. Corporate clients also possess commercial data that are used for contract analytics and other artificial intelligence (AI) use cases. Lastly, lack of financial capital is less of a problem in BigLaw, given that these law firms and corporate clients are typically large and resourceful.

PeopleLaw sector

In the PeopleLaw sector, legal service providers are smaller on average, with more sole practitioners and freelancers compared to in BigLaw. A smaller average firm size is just one of the reasons why it is more challenging for PeopleLaw providers to adopt new business models. First, the adoption of legal technology faces a higher barrier in the form of lack of financial capital to invest in technology (see Chapter 2). Second, because prices have to be relatively low to make services affordable, it is tougher to generate profit compared to in BigLaw. Third, there is often a lack of available off-the-shelf software for automating many PeopleLaw-related legal problems, which requires firms to build their own solutions.

- **The legal operations** model would improve workflows and quality of service delivery. But lack of internal scale makes the initial fixed cost of investment high relative to the returns.

- **The legaltech solutions** model may use self-service portals and virtual assistants to lower the cost of legal service delivery substantially. But in many areas of law, especially complex and/or contentious areas, human lawyers are needed in the loop. This makes it harder to exploit the full benefit of self-service.

- **The transactional platform** model automates the matching of lawyers to clients. But once a lawyer is identified, the lawyer may apply the traditional mode of charging by billable hour, raising the overall price to consumers.

In short, new business models may not be adopted in cases where the revenue generated from charging affordable prices does not cover the overall cost of service delivery.

Last and not least, access to data that is aggregated to be 'big data' is central to the effective adoption of digital technology, especially artificial intelligence (AI). BigLaw firms often have access to large-scale commercial data from corporate clients, some of which will be standardised, and therefore lends itself to big data analysis. In PeopleLaw, individual consumers have personal data (rather than commercial data in BigLaw) that needs to aggregated, in order to gain useful insights. But personal data is typically scattered between many PeopleLaw firms, and consumers themselves would not initiate such aggregation.

In summary, PeopleLaw providers face tougher barriers to adopting new business models and using data than BigLaw providers. In the next section, we will address the question of whether the differences between PeopleLaw and BigLaw mean that the two segments should be dealt with separately in terms of policy approaches.

Implications for policy and regulation

This section provides a discussion on three policy areas: first, promoting innovation and legal technology use by taking account of multiple policy objectives; second, facilitating user trust and confidence in legal technology and data; and third, promoting the human capital aspect of innovation and technology use via education and training.

Although some of the suggestions for further consideration are directly relevant to the SRA, others reach beyond its remit, and would require work by, and/or with, a range of regulators and policy makers across sectors.

1. Promoting innovation and legal technology use by taking account of multiple policy objectives

There is keen awareness among policy circles that, in the digital economy, the way products and services are offered cuts across the previously well-established boundaries of markets, jurisdictions, and regulation. Technology tools and products certainly do not respect sectoral boundaries. Issue-based regulators and standard-setting bodies are collaborating, for instance, via the Digital Regulation Cooperation Forum (with CMA, ICO, and Ofcom, joined by FCA in April 2021) to oversee the interaction between competition and privacy protection that might arise from the use of data. The SRA already coordinates with these organisations in various ways. But what considerations should be given to render such coordination and collaboration to become even more effective at promoting innovation and legal technology adoption?

To facilitate this discussion, Figure 6.1 (reproduced from Chapter 3) identifies different layers of regulators that engage in policy coordination. This is illustrative and not intended to be exhaustive. As explained in Chapter 3, the top row in this Figure is about sector-based regulation, and coordination is between the LSA-approved regulators in legal services and regulators outside the legal sector, the Financial Conduct Authority, for instance. The second row in the Figure concerns general law on data protection, competition policy, consumer protection, anti-money laundering, cyber security, and other issues. Coordination between these issue-based regulators and sector-specific regulators may be embedded in the latter's regulatory guidance and compliance rules. In the third row, standard setting bodies, notably the British Standards Institution (BSI), provide technical standards and certification to enhance consumers' trust in products and services. Standards may also arise from government portals, and private initiatives by technology and data providers.
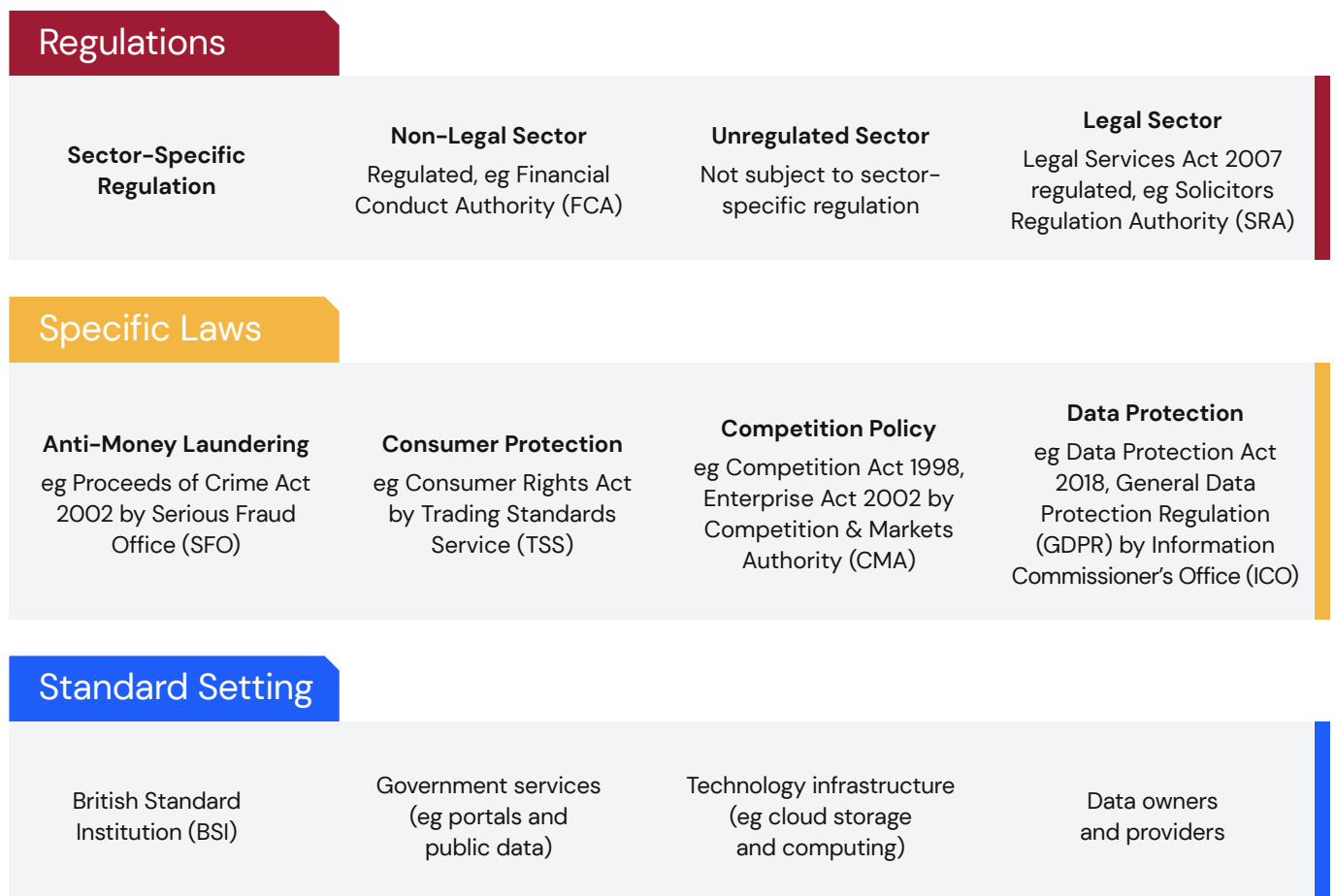
Policy coordination between different layers is already happening, but greater coordination would bring greater benefits. We discuss two specific benefits: first, managing synergy and trade-off among policy objectives, and second, promoting standardisation in products and technology tools.

Synergy and trade-off between multiple policy objectives

First, there are benefits to understanding the consequences of pursuing multiple policy objectives, for instance competition and data protection. Remember, according to our online survey, the top regulatory barrier to adopting technology is the need to satisfy client confidentiality and data protection requirements (see Chapter 2). Data protection and competition as two policy objectives may create synergy, but they may at times conflict with each other. Creating a level playing field is essential for enabling effective competition. And data protection law may be consistent with achieving such a level playing field with regards to data access. But in certain fields, the ownership of user data (ie data about users' attributes or online activity) is concentrated in a few hands, and BigTech companies such as Google and Facebook enjoy significant data advantages in the provision of their user facing and advertising services. In legal services, PeopleLaw is characterised by the prevalence of personal data, in contrast to the prevalence of commercial data in BigLaw. Promoting the adoption of legal technology involves using personal data. Consequently, it requires similar consideration of monitoring risks arising from balancing competition (for consumer protection) and data protection (and privacy). And this could be addressed effectively by legal sector regulators coordinating and collaborating with issue-based national regulators and policy makers.

Figure 6.1: Layers of law, regulation, and standards

Regulations

Sector-Specific Regulation	Non-Legal Sector Regulated, eg Financial Conduct Authority (FCA)	Unregulated Sector Not subject to sector-specific regulation	Legal Sector Legal Services Act 2007 regulated, eg Solicitors Regulation Authority (SRA)

Specific Laws

Anti-Money Laundering eg Proceeds of Crime Act 2002 by Serious Fraud Office (SFO)	Consumer Protection eg Consumer Rights Act by Trading Standards Service (TSS)	Competition Policy eg Competition Act 1998, Enterprise Act 2002 by Competition & Markets Authority (CMA)	Data Protection eg Data Protection Act 2018, General Data Protection Regulation (GDPR) by Information Commissioner's Office (ICO)

Standard Setting

British Standard Institution (BSI)	Government services (eg portals and public data)	Technology infrastructure (eg cloud storage and computing)	Data owners and providers

Standardising legal products and technology tools

Second, the review of legal services by the Competition and Markets Authority (CMA) in December 2020 found that progress had been made with more legal firms providing information on price, service, redress, and regulatory status to help consumers shop around.[3] But the CMA also stated that there was still work to be done to enhance the intensity of competition, for example by providing more information on quality. Competition policy to promote greater choice for consumers is implemented via digital comparison sites, review sites (such as Trustpilot), and the Legal Choices website. Moreover, the SRA specifically has conducted a quality indicator pilot and work is ongoing to explore quality indicators in the legal services market.

Consideration might be given to promoting competition, not only via digital comparison sites, but also by setting standards for legal products. In certain areas of law, where services are easily offered as standardised products, standardisation would lower consumers' search cost considerably. Standardisation might take the form of a minimum set of product characteristics that consumers can expect to see in legal products, notably a variety of legal documents such as wills and contracts. Digital technology is normally involved in creating simple, transparent products (service offerings) that are easy to understand and compare. Offering such products that meet basic needs would enable greater access to justice. And lowering consumers' cost of shopping around is most important for PeopleLaw products characterised by infrequent purchases (for wills, probate, conveyancing, etc.). [4]

In other areas of law – complex and/or contentious – product standardisation might be less easy to implement. But even these non-commodity practice areas would benefit from applying the idea to legal technology tools. This might involve the British Standards Institution (BSI) taking responsibility for the principles to be applied for developing product standards and for the accreditation process. The more there are off-the-shelf software tools that 'do what they say on the tin', the lower the cost of deploying technology as they minimise the need to build (or substantially modify) the tools in-house. Standardised software tools may also be effectively linked to other government standard-setting initiatives such as the Official Injury Claims procedure that enables citizens to claim for personal injury arising from road accidents free without legal help.

2. Facilitating user trust in technology tools and data

This research has highlighted the need to build user trust in legal technology. The study focused on law firms and other legal service providers as users of legal technology. Our online survey provides ample evidence that SRA-regulated firms are looking to the SRA to reduce the cost of identifying appropriate technology tools available in the market. Some firms also want the SRA to 'give quality assurance about the technology to be used' by 'providing an approved list of providers', or by attaching 'accreditation to firms which adopt technology' (see Chapter 2). 'I need to know what's available, why it's relevant to me and the work I do, what it will cost to acquire, run and maintain, and what net cost benefits it will bring', stated one survey respondent. The online survey also explored different ways to improve user trust and found that access to technology experts as consultants was more likely to lead to technology adoption than a government accreditation system (see Chapter 2).

The past year has witnessed a busy period with recommendations for extending regulation to unregulated legal markets. In June 2020, Stephen Mayson concluded a two-year review of legal services regulation, and proposed in the long-term the registration and regulation of all providers of legal services under a single, sector-wide regulator.[5]

3 Competition and Markets Authority (2020) Review of the Legal Services Study in England and Wales, December.
4 This is consistent with the LSB's intention to use its convening power to explore the merits of Simple Legal Products, along the lines of Simple Financial Products recommended by the Sergeant Review. See Legal Services Board (2021) Reshaping Legal Services: A Sector-wide Strategy, March 2021; Sergeant Review of Simple Financial Products: Final Report, March 2013.
5 Stephen Mayson (2020) Reforming Legal Services: Regulation Beyond the Eco Chambers, London: Centre for Ethics and Law, University College London.

The proposal was to bring 'the unregulated' (including those who provide online services) within a registration system with access to ombudsman investigation and redress. Six months later, in December 2020, the CMA, in its review, also considered that 'there is merit in taking shorter term steps...including the Ministry of Justice establish a mandatory public register of unregulated providers, requiring them to provide appropriate redress'.[6]

Notwithstanding the merits of these recommendations, there are challenges to maintaining a public register, including the challenge of being up-to-date and the challenge of defining an appropriate scope of coverage. For instance, should such a register include or exclude providers that bundle legal and non-legal services? If such a register extends to legal technology providers, how should it define what constitutes legal technology, as opposed to more general digital technology? These scoping challenges are non-trivial, as discussed in Chapter 3.

An alternative regulatory framework to enhance user trust in legal technology is the product governance approach pioneered by the Financial Conduct Authority (FCA) in financial services.[7] This approach requires product and service providers to implement a set of internal processes that govern the development, testing and marketing of products which ensure that consumer benefits are realised. The relevant regulator could oversee the functioning of these processes during, and beyond, the duration of a regulatory sandbox. In a rapidly evolving and technologically complex environment, product governance provides a more dynamic and flexible regulatory approach than traditional regulation.

As noted by John Armour,[8] this approach is consistent with a key component of the European Commission's recent proposal for a Regulation on Artificial Intelligence. This proposed regulation envisages delegation of responsibility for compliance and risk management to firms providing AI, with accompanying expectations of regulatory oversight of these processes.[9]

Sandboxes aim to encourage innovation by allowing businesses to test their innovative product offering in a 'safe' environment. But there is a nuanced difference between regulatory sandboxes and sandboxes that do not rely on regulatory exemptions.

The FCA's regulatory sandboxes involve the granting of licensing exemptions and conditional relief from regulatory requirements, to test if new service offerings do not cause consumer detriment. In the event that consumer harm is apparent, sandbox participants face withdrawal of exemptions and penalties. Although not a sandbox, SRA Innovate allows waivers to rules in a controlled environment and conducts checks on internal governance and impact on consumers. In particular, the SRA ran the Legal Access Challenge in 2020 funded by the Regulators' Pioneer Fund.

LawtechUK's sandbox pilot in 2021, hosted by Tech Nation, is designed along similar lines, but with one major difference. That is, it is not a regulatory sandbox in the strict sense of the word, as there are no regulatory requirements for which it provides exemptions. As a result, these sandboxes are more like incubators. The upside is that firms receive guidance and access to regulators. The downside, however, is that with no regulation or licence to waive, sandbox participants' incentive to create and embed robust internal processes is likely to be lower, given the absence of penalty.

The sandboxes in legal services might be designed in different ways to promote innovation and legal technology adoption. We highlight the following four design principles for further consideration.

Cross-sector regulatory sandboxes might promote learning across sectors. Sandboxes within legal services already allow firms requiring coordination with multiple regulators to have a single point of contact when testing their products and services. Sandboxes that cross sectors, for example covering both fintech and lawtech, would increase complexity in such coordination. However, they would also facilitate cross-sector learning.

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6 Competition and Markets Authority (2020) Review of the Legal Services Market Study in England and Wales, December.
7 Financial Conducts Authority (2017) Regulatory sandboxes lessons learned report, October.
8 John Armour (2021) Technology and PeopleLaw.
9 European Commission, Proposal for a Regulation Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) COM (2021) 206 final, Brussels 21.4.2021.

Creating a regulatory navigation tool that covers multiple sectors would bring benefits to tech startups that operate across sectoral boundaries.

Sandbox participants might be encouraged to achieve regulatory compliance by linking data governance to product governance. In our online survey, 'client confidentiality and data protection requirements' was the most cited regulatory barrier to technology adoption (see Chapter 2). This is relevant because, increasingly, products and services are derived from digitised data. Navigating the data protection regime is complex and poorly understood.[10] Moreover, sanctions are large, with the maximum fine being £17.5m or 4% of annual turnover, whichever is greater.[11] Guidance on data access and use is already part of lawtech sandboxes. In particular, the SRA signposted participants of the Legal Access Challenge to the ICO and other relevant regulators. LawtechUK's sandbox pilot facilitated matchmaking of lawtech startups with data providers, with its legal data sharing toolkit in collaboration with the Open Data Institute. We suggest that, in future, lawtech sandboxes should go beyond providing matchmaking and compliance advice in relation to data. In addition, we suggest that all sandbox participants should be required to build a robust governance process for complying with data use into their internal procedures as a condition of sandbox membership. Moreover, sandbox operators might consider publishing participants' 'lessons learned' on how they complied with client confidentiality and data protection requirements. This would help propagate best practice beyond those directly involved in the sandbox.

Sandboxes could attract participants by focusing on systemic issues such as promoting access to public data. This is consistent with the government's National Data Strategy which aims to unlock the value of data in the economy. In particular, large scale data, already captured by the government as part of its initiative to digitise justice data and improve public services, could be made available to legal service and technology providers in PeopleLaw. Such data would help providers develop data-assisted solutions for consumers with matters that tend to be one-off in nature, such as divorce, road traffic accidents, probate, and conveyancing. At present, data needed to develop such solutions are difficult for providers to access. Public data would also address the problem of fragmented data, as providers can only collect their own data.

Lastly, considerations may be given to inviting both PeopleLaw and BigLaw ventures to participate in the same sandboxes. To date, the SRA-Nesta Legal Access Challenge focused on PeopleLaw ventures, whereas the LawtechUK sandbox pilot in 2021 had participating ventures from both market segments. While business models are quite different in the two market segments, as discussed earlier, sharing best practice in innovation and technology adoption across the segments may be beneficial. In financial services, the FCA sandbox encouraged applications from businesses of all sizes, and the first cohort had included large businesses, startups and 'everything-in-between'.[12] In legal services, the regulatory sandbox created by the office of the Utah Supreme Court does not prejudge the sources of impactful innovation, and authorised LawGeex, a BigLaw AI-driven contract management platform, which proposes to develop services to smaller companies without in-house counsel.[13] Scoping out which types of providers qualify as sandbox participants – startups only or incumbents also, and PeopleLaw ventures only or BigLaw ones also – is an important consideration.[14] Partnerships between incumbents and startups are seen to be important also in Kalifa review's recommendation for 'scaleboxes', which supports firms interested in scaling innovative technology.[15]

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10 See further discussion on data protection in John Armour (2021) *Technology and PeopleLaw*.
11 Data Protection Act 2018 s 157.
12 FCA (2016) 'Financial Conduct Authority Unveils Successful Sandbox Firms on the Second Anniversary of Project Innovate' (Press Release, 07 November).
13 See the Office of Legal Service Innovation, an Office of the Utah Supreme Court.
14 See for a comparison of fintech sandboxes in Bromberg, L., Godwin, A., & Ramsay, I. (2017) 'Fintech sandboxes: Achieving a balance between regulation and innovation', *Journal of Banking and Finance Law and Practice*, 28(4): 314–336.
15 Ron Kalifa (2021) The Kalifa Review of UK FinTech, February.

3. Jobs, education and training for the legal and associated professionals

The online survey found that 'lack of staff expertise to assess and implement technology' was the second most cited barrier to adopting legal technology. Moreover, our analysis of nearly 900,000 online job postings in the UK during 2014-2020 in the Burning Glass database led to a clear picture of digital skills required in the legal services market (see Chapter 3). We divided job postings into three categories: **(a) licensed lawyers** (solicitors, barristers and judges), **(b) associated legal professionals** (including paralegals and legal secretaries), and **(c) other workers** (including business analysts and data scientists) who work in the legal sector. We bundled (b) and (c) together and labelled them non-lawyers. We found that:

- Lawtech skills (digital skills in the legal sector) were required for only 1-2% of job postings for licensed lawyers, and for up to 15% of job postings for non-lawyers.

- In the UK, lawtech skills commanded a salary premium, suggesting that lawtech skills are valued in the market. Specifically, solicitors and paralegals are both paid more for job postings that require lawtech skills, compared to job postings that do not.

- Within the UK, alternative business structures (ABSs), as compared to non-ABS firms, employ more non-lawyers relative to lawyers, and have a greater proportion of non-lawyer job postings with lawtech skills. These are human capital reasons why ABSs have been found to be more innovative and more prone to adopting legal technology.

- A contrast with the US is worthy of note. First, the proportion of licensed lawyer job postings with lawtech skills was equally low, at 2-3%. But when we combined licensed lawyers and associated legal professionals in one category, the proportion requiring lawtech skills was higher in the US, around 5% peaking to 8% in 2016, whereas the equivalent proportion

remained low at 1-2% in the UK. This means that US legal service providers rely more heavily on paralegals to access lawtech skills, whereas UK providers rely on experts outside the legal profession and associated legal professionals to deliver digital expertise.

What implications for education and training can we draw from this comparative evidence on the distribution of lawtech skills? As this study did not focus on professional skills and expertise, we cautiously raise somewhat broad issues for further consideration.[16]

There are recent moves towards training for legal technology at some law schools and in some law firms. Some legal apprenticeships, for example one offered by the City Consortium of six large law firms, will train lawyers for 'commercial knowledge (including business, finance, law tech)'.[17] The adoption of legal technology evidently requires more experts who can assess and implement legal technology. But whether this technological expertise should be incorporated within the legal profession, among associated legal professionals, or else provided by those with no legal training, is a moot point.

Lawyers used to work only with other lawyers. But increasingly, the adoption of legal technology and new business models is making lawyers and non-lawyers work more collaboratively on a day-to-day basis.[18] This implies quite a different work environment, requiring further consideration of the following issues.

The depth of digital literacy required differs depending on whether lawyers are 'consumers' or 'producers' of technology-enabled services.[19] Lawyers-as-consumers of outputs from AI and related digital technology need to know enough about the logic behind how AI (including machine learning) works in order to be able to make appropriate professional judgements by interpreting the results of data analysis.

16 See John Armour (2021) *Technology and PeopleLaw* for further discussion.
17 See some case studies in https://www.sra.org.uk/sra/news/sqe-update/sqe-ready-case-study
18 John Armour, Richard Parnham, and Mari Sako (2020) Augmented Lawyering, SSRN working paper; Mari Sako, Mari, John Armour, and Richard Parnham (2020) Lawtech Adoption and Training: Findings from a Survey of Solicitors in England and Wales, in collaboration with the Law Society of England and Wales.
19 See *Augmented Lawyering* for further discussion of this distinction.

By contrast, lawyers-as-producers of AI would need some substantive knowledge of statistical reasoning and data science, so that they can converse with data scientists to develop and train algorithms in multidisciplinary teams. The latter role, however, is not necessarily exclusively for persons qualified as lawyers. Within the existing regulatory boundaries, those who produce lawtech include a broad range of professionals including paralegals. And indeed, the pay premium for lawtech skills exists for paralegals as well as for qualified lawyers. Thus, certification for Legal Engineer may be made available to qualified lawyers only, an approach taken by the Law Society of Scotland.[20] Equally, a similar certification may emerge for paralegals and other associated professionals. Lawyers-as-consumers of lawtech constitute the majority in the legal profession and will remain so. But since the activities of producers of lawtech do not currently have to be undertaken by qualified lawyers, future regulatory responses will influence whether or not they would remain within the legal profession, or else come to lie outside it.

Lawyers and non-lawyers working together in the legal sector would benefit from having the same knowledge of the constitutional and ethical norms required to adopt AI and associated technology. With a strong need for transparency and accountability in the design and deployment of automated systems, BigTech firms are creating job posts and board-level committees to oversee AI ethics. In legal services, lawyers' code of conduct in honesty and integrity may remain unchanged. But consideration should be given to lawyers acquiring substantive knowledge of basic statistics so that they can comply with such codes, for example by identifying sources of bias arising from specific uses of data and technology. Digital technology adoption implies that more and more workplaces for lawyers will involve lawyers and non-lawyers working together. Non-lawyers working in collaboration with lawyers, therefore, would benefit from similar training in ethical norms.

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20 In the US, Washington State attempted to provide a licence for paralegals with digital skills, called the limited license legal technician.
See American Bar Association (2016) *Report on the Future of Legal Services in the United States,* Commission on the Future of Legal Services.

Chapter Summary

Here is a summary of the policy and regulatory issues raised in this chapter.

- **Issue I:** Regulating for legal technology adoption and innovation would benefit from intense coordination and collaboration among sector-specific regulators and issue-based regulators (including CMA and ICO). This would ensure monitoring synergies and trade-offs in achieving multiple policy objectives of consumer protection, competition, and data protection.

- **Issue II:** Consideration might be given to promoting competition, not only via digital comparison sites, but also by setting standards for legal products and legal technology tools, with BSI involvement. This would lower costs to consumers of searching for legal services in areas of law where standardisation is easy to implement. Even in areas of law which are complex, product standardisation could be applied to legal technology tools, to enhance user trust in legal technology.

- **Issue III:** User trust in legal technology tools could be also enhanced via 'product governance', a sandbox approach that monitors participating providers' internal processes for the development, testing and marketing of products to ensure no consumer harm. Sandboxes may also be developed to address systemic issues, such as access to public data, and to enhance mutual learning between PeopleLaw and BigLaw providers.

- **Issue IV:** Data governance, in compliance with the data protection requirements, could be linked to product governance. Compliance with data protection requirements remains a significant barrier to adopting legal technology. Therefore, considerations should be given to tackling this barrier. Over and above advice on compliance, compliance would become embedded in firm processes if sandbox participants were required to build a robust process for accessing, storing and using personal data.

- **Issue V:** The adoption of legal technology necessitates thinking about the education and training for lawyers with two equally important considerations. One issue concerns different levels of training for lawtech skills, depending on their career pathways and job roles. The other area of potential training is on constitutional and ethical norms required to adopt AI and to access data. As lawyers and non-lawyers work increasingly in multidisciplinary teams, they might all benefit from being trained to abide by the same ethical norms.

Final Report for the Solicitors Regulation Authority

Technology and PeopleLaw
John Armour*

1. Executive Summary

This paper considers the potential for technology to transform the provision of legal services to individual clients – the so-called 'PeopleLaw' sector. There is evidence of significant unmet demand by individuals for legal services. Yet, despite a concerted effort by policy makers to facilitate investment and competition in the sector, individuals persistently report high levels of unmet legal need.

New technologies such as artificial intelligence (AI) are currently reshaping workplaces, facilitating new business models, and stimulating disruption in a range of sectors, including professional services (Davenport 2018; Susskind and Susskind 2015; Boobier 2018; Ransbotham et al 2017). The sectors undergoing change include legal services, in which AI and related technologies are beginning to have considerable impact (Armour and Sako 2020; Brooks, Gherhes, and Vorley 2020). However, the uptake of technology appears to have so far been skewed towards firms servicing corporate, rather than individual, clients (Legal Services Board 2018; Armour and Sako 2021).

This paper explores constraints on the adoption of technology in the PeopleLaw sector, and the potential for policy makers to relax them. That is to say: why has technology not so far addressed the unmet legal needs of individuals, and what can policy makers do about it?

We discuss five key issues pertinent to these questions. First, the potential for applications to be delivered in the sector with '**humans out of the loop**'. Most current technological applications serve to enhance the productivity of human lawyers. Clearly, the enhancements this has delivered have not yet been sufficient to meet latent demand. How feasible is it that tech might substitute for human lawyers altogether?

This could reduce costs far more radically than has currently been achieved. However, current technology does not yet permit full functional substitution. While partial substitutes do exist, their efficacy is limited by a range of factors. These include the need to meet constitutional safeguards and constraints on demand, including digital exclusion and the desire to use, or greater trust in, local services. Moreover, full substitution also raises hitherto-unanswered questions about the unauthorised practice of law.

The second key issue concerns the balance of **constitutional considerations** entailed in applying advanced technology to PeopleLaw. On the one hand, concerns about privacy

and equality are now coming to be widely appreciated, but the pathways to navigate these complex bodies of law are poorly mapped, especially for small firms. The problem is compounded by the need to interact with a congeries of issue-based regulators, and differences in the intensity of enforcement that do not map onto differences in the normative significance of the issues. At the same time, the right to a fair trial grounds a constitutional imperative to facilitate access to justice. Technology applied consistently with privacy and equality norms can be a powerful lever to facilitate such access. Consequently, the mapping of pathways to compliance with these norms in a way that tracks their constitutional significance should be understood by policy makers not as an attractive option, but as an imperative.

Third, the adoption of AI and associated technologies appears to run up against widely-documented issues of user trust. Yet in the context of legal services, these problems are arguably not so much to do with technology per se – consumers are happy to adopt advanced technologies in many other contexts – but may simply reflect the fact that consumers with unmet legal needs have a low degree of trust in the legal system in any event. Other contexts in which lack of trust is endemic – such as financial services – suggest that **an appropriately designed regulatory framework can help to engender user trust.** A side-effect of the facilitation of competition in legal services, however, has been to limit the scope of legal services that qualified lawyers (and associated professions) have exclusive rights to provide. Beyond this, there is little in the way of regulatory governance apart from general consumer protection norms. There is an opportunity here for regulators to build trust for users by introducing effective governance of technology-enabled legal services for consumers. In this respect, a very promising model is offered by the 'product governance' approach pioneered by the Financial Conduct Authority in financial services. This requires product manufacturers to implement a set of internal processes that govern the development, testing and marketing

of products which have as their touchstone the realisation of consumer benefits, as opposed simply to the maximisation of profits. The existence and functioning of these processes are then overseen by the relevant regulator. A similar approach forms a key component of the European Commission's recent proposal for a regulation on artificial intelligence, which in many contexts envisages delegation of responsibility for compliance and risk management to firms providing AI, with accompanying expectations of regulatory oversight of these processes.[1]

Fourth, the deployment of data-driven technologies such as AI raises important concerns about the **impact of data aggregation on the competitive dynamics** of the PeopleLaw sector. In financial services, this has led to the Open Banking initiative, which forces incumbents to permit users to migrate their transaction history data to new entrants, a significant step toward levelling the data playing field. However, in legal services, the data challenges are different, as most individual users participate relatively infrequently in the legal system. Consequently, relevant analytic tools are likely to be developed using data not about individual users' past histories (as in the case of credit scoring) but rather data aggregating other users' legal interactions. The central challenge is therefore not so much to facilitate access to private pools of data, but to ensure a level playing field in access to data generated by the legal services system. This currently does not exist, and a small number of large incumbent legal data providers currently enjoy a near-monopoly on access.

Fifth, the successful design and deployment of advanced technologies to knowledge-intensive domains such as legal services requires **consideration of the education and training of relevant skills**. This can be understood as operating in two phases: first, to ensure that human legal services professionals have sufficient skills to make use of advanced technologies to enhance their own productivity: that is, to act as effective consumers of these technologies. A second phase is the development of skills necessary to produce technological

1 European Commission, Proposal for a Regulation Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) COM (2021) 206 final, Brussels 21.4.2021.

systems applied to legal services – requiring a full mix of legal and technical expertise. Because technological change is happening over timespans far shorter than a professional career, these educational and training needs impact all stages of career progression, from new entrants to senior personnel.[2] They in turn have implications both for entry qualifications and continuing professional development (CPD). There are various possible future configurations of professional knowledge, with associated educational imperatives. We argue that the fast-moving nature of the technological development makes it less useful to prescribe, as opposed to facilitate, standards for technical knowledge. Moreover, the emergence of multidisciplinary teams in the professional context means that it is less important how much individual members of a team (such as lawyers) know themselves, as opposed to the combined knowledge available

to the team as a whole. However, individual members will need to know enough about disciplines other than their own in order to be able to have a sufficiently productive common vocabulary. Subject to this, we suggest that education in constitutional and ethical norms applicable to the sector could usefully be considered for professionals working across a range of disciplines pertaining to the sector.

The rest of this paper proceeds as follows. Section 2 sets the scene. It begins by introducing the PeopleLaw sector and the problem of individuals' unmet legal needs. It then considers the relatively limited extent to which technology has been adopted in this part of the legal services sector. Section 3 considers the five key issues for the transformative application of technology to PeopleLaw. Section 4 concludes with a summary of the principal implications.

2. Overview of PeopleLaw sector and current challenges

2.1 The PeopleLaw sector and unmet legal need

We take 'PeopleLaw' to encompass the component of the legal services sector that serves the needs of individual clients and SMEs.[3] This includes practice areas such as consumer disputes, criminal law, family law, immigration, residential conveyancing, and wills, trusts, and probate.[4]

The vast majority of legal services work in England and Wales, as measured by turnover, is provided to corporate clients.[5] A recent study by KPMG for the Law Society of England and Wales reports that 60 percent of law firm turnover is in corporate client work, whereas only 20 percent is individual client work (KPMG 2020: 15–16).[6] Revenues generated by legal services work in the UK grew by 44 percent over the decade 2010–19 (TheCityUK 2020: 11), more

than double the national GDP growth over the same period.[7] However, this increase was driven by corporate client work, while the share of overall legal services represented by individual client work appears to have shrunk during this period.[8] Although overall employment in legal services has remained fairly constant in recent years (KPMG 2020: 31), there has been a growth in the fraction of lawyers working in-house for corporations (Law Society 2020). Because this growth is directed at corporate work, it too is strongly suggestive of a corresponding decline in PeopleLaw's relative share of the overall legal services market during the same period.

Alongside this relative decline in market share of PeopleLaw within legal services as a whole, there is evidence of considerable latent demand for PeopleLaw services.

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2 However, the nature of the education and training required varies by career stage, with senior personnel needing more strategic insights and junior personnel more operational skills.
3 The term is due to the work of the University of Chicago legal sociologists Heinz and Laumann, who first documented in the 1970s the division of the US legal profession into two very different 'hemispheres', with correspondingly divergent client bases, career pathways, remuneration and acculturation arrangements (Heinz and Laumann 1982; Heinz et al 1998).
4 It also includes the 'employee side' of employment law.
5 If measured by volume of transactions, the pattern would look more balanced: PeopleLaw transactions tend to be much lower in value than BigLaw transactions.
6 Consistently with this, the SRA estimate that only 11 percent of law firm revenues in England and Wales come from work provided to vulnerable, or potentially vulnerable, individuals: (Solicitors Regulation Authority 2019).
7 Office of National Statistics data report that UK GDP grew from £1.85tn in 2010 to £2.17tn in 2019, an increase of 17.3% (https://www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/abmi/qna).
8 For example, the share represented by individual client work was estimated to be as high as 50 percent just under 25 years ago (in 1997/98) using the same Law Society data source: (Office of Fair Trading 2001: 44)

Figures 1 and 2 present findings from a survey conducted by YouGov on behalf of the Legal Services Board and the Law Society in 2019, which estimated that approximately half of all respondents who had a resolved legal issue had an 'unmet legal need' in respect of the issue (YouGov, Law Society of England and Wales, and Legal Services Board 2019: 91–96).[9]

A key constraint facing many individuals seeking access to legal services is financial. To the extent that individuals with legal need cannot afford the costs of legal services, they are unable to have their legal needs met.[10] Until recently, a key policy for assisting impecunious individuals to gain access to legal advice was the provision of legal aid. It is worth noting that the last decade also coincided with a major reduction in the provision of legal aid,[11] widely linked to a decline in access to justice for individual clients (Welsh 2017; Wong and Cain 2019; Dehaghani and Newman 2021; Hirsch 2018).

At the same time, government policy in relation to legal services has sought to promote competition in the sector by removing barriers to entry, most notably through the introduction of the Clementi reforms by the Legal Services Act 2007 (Clementi 2004; Office of Fair Trading 2001; Department of Constitutional Affairs 2005). This in turn is motivated by a desire to reduce the costs of legal services, and thereby facilitate access to justice.

This paper is motivated by the idea that technology offers the potential to unlock lower-cost access to legal services by enhancing productivity in the sector. If more services can be offered for the same headcount, then the cost to the user of such services can be reduced further. We turn now to the principal sources of technological innovation in legal services, in particular the PeopleLaw sector.

Figure 1: Met and unmet legal needs among individual respondents who had a resolved contentious legal issue, by issue type
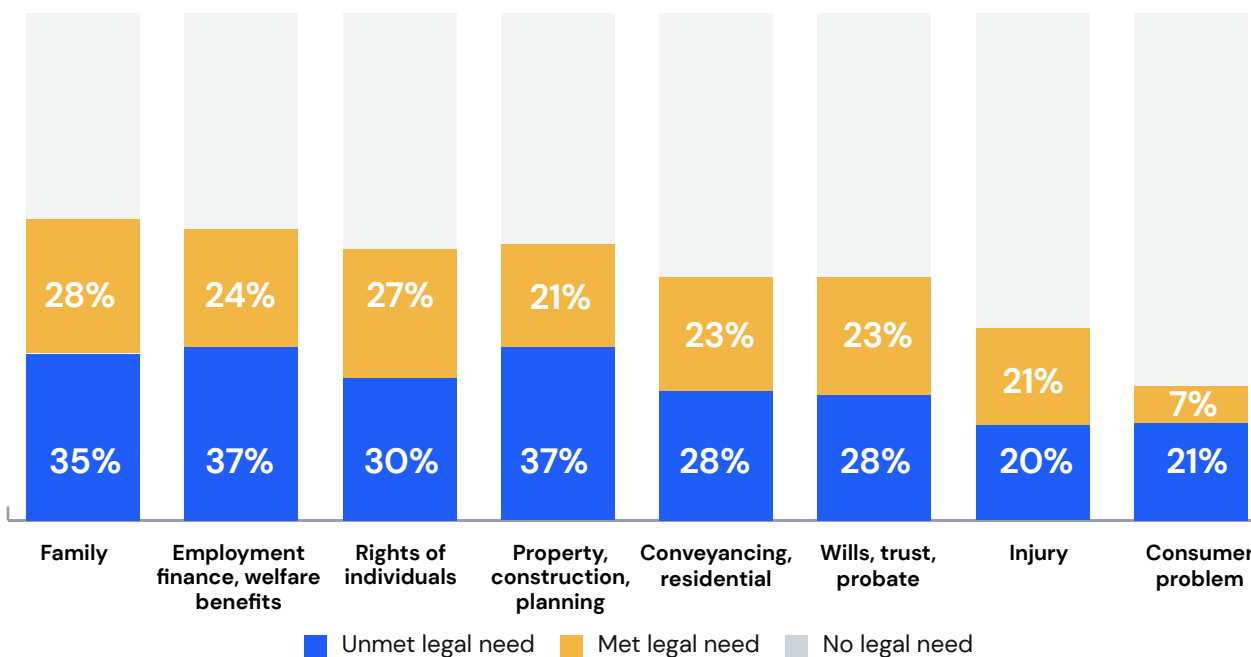
Base: All who had a resolved *contentious legal issue* that started in 2012 or later (9,231), rights of individuals (n=617), consumer problem (n=1,007), conveyancing/residential (n=1,672), family (n=1,307), injury (n=129), property/construction/planning (n=1,899), employment/finance/welfare/benefits (n=2,350), wills/trust/probate (n=2,337).

**Source:** YouGov, Law Society of England and Wales, and Legal Services Board (2019: 91).

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9 This varies across types of issue between approximately 25 percent and 75 percent of respondents indicating a resolved legal issue. The analysis of responses to determine levels of unmet legal need was based, in accordance with OECD Guidance on a composite analysis of a number of respondents' answers (YouGov, Law Society of England and Wales, and Legal Services Board 2019: 84–96; Organisation for Economic Cooperation and Development (OECD) and Open Society Foundations 2019: 89). A 'legal need' was defined as existing where an individual needed support to deal with a legal issue. This was deemed to be the case where individuals experienced legal issues of high or medium seriousness, in relation to which they had anything other than full awareness/understanding, legal confidence, and faith in the fairness of the process. Such legal needs were defined as being 'unmet' where they were 'not resolved adequately because there was no support/the support was not helpful.' This was deemed to be the case where individuals with legal needs either had not received any expert help, or where the help received had been inadequate.
10 The classification of 'unmet legal need' reported in Figures 1 and 2 includes, in addition to cases where an individual with a legal need cannot afford the costs of effective expert help, cases where such help is simply not available at all, or where it is available at a price the individual can afford, but is ineffective. Nevertheless, cost is a significant component of unmet legal needs overall (Organisation for Economic Cooperation and Development (OECD) and Open Society Foundations 2019: 31, 33–34, 84–86).
11 Legal Aid, Sentencing and Punishment of Offenders Act 2012.

Figure 2: Met and unmet legal needs among individual respondents who had a resolved non-contentious legal issue, by issue type
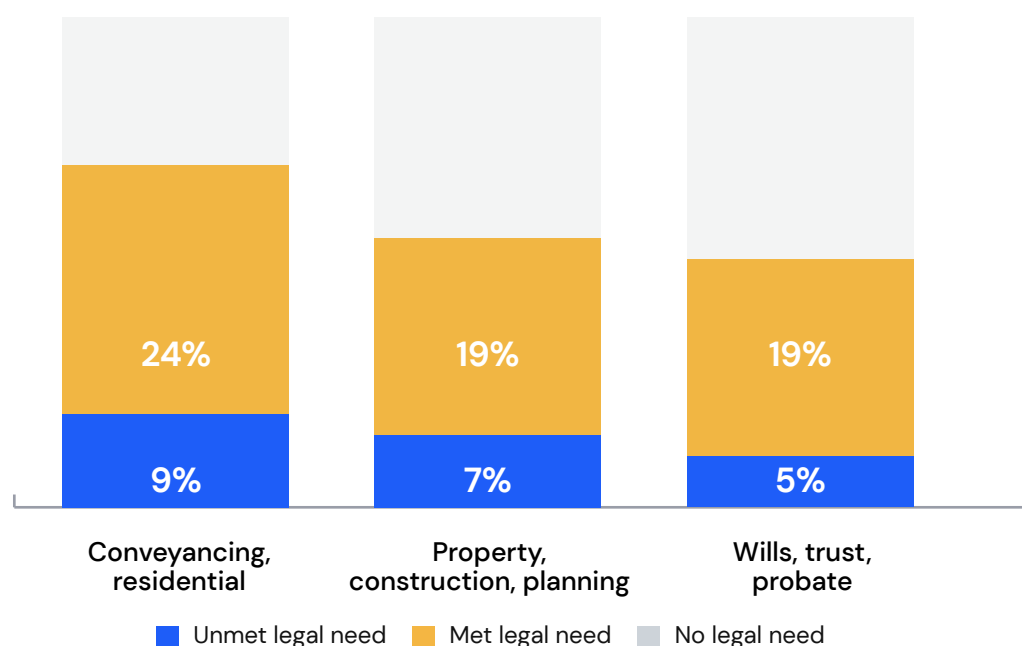
Base: All who had a resolved non-contentious legal issue that started in 2012 or later (3,531), conveyancing/residential (n=1,249), property/construction/planning (n=262), wills/trust/probate (n=1,996), family issues not shown owing to low base (n=24).

Source: YouGov, Law Society of England and Wales, and Legal Services Board (2019: 96).

2.2 Key technological innovations relevant to legal services

Technology can lower the costs of legal services in at least two ways. Most obviously, it can substitute an automated system for human workers in the performance of relevant tasks, enabling the delivery of economies of scale. It can also, however, enhance the productivity of humans performing tasks that are not (yet) capable of being automated, by freeing up their capacity to focus on these tasks (Acemoglu and Restrepo 2019; Autor 2015). By lowering costs, technology offers potential for meeting latent demand for legal services in the PeopleLaw sector.

A number of surveys report growing adoption of technology, including AI, across legal services generally (Law Society 2019; Sako, Armour, and Parnham 2020).

Alongside this, productivity across the legal services sector has increased by 17 percent over the five years to 2018, greater than the 11 percent of growth across the UK economy as a whole in the same period (KPMG 2020: 31). This is consistent with technology adoption in the sector facilitating productivity gains.

However, the deployment of technology in PeopleLaw specifically remains relatively modest to date (Legal Services Consumer Panel 2019). This can be appreciated in the aggregate from survey data, presented in Figure 3, which report that smaller legal services firms – of the sort that are more likely to service PeopleLaw clients – have typically made less use of emerging technologies than larger firms more focused on corporate clients (Legal Services Board 2018: 12–13).

Figure 3: Deployment of emerging technologies by size of legal services firm, by employees

Technology	Overall use	Size 0 to 9	Size 10 to 49	50 or more
Interactive website	35%	31%	46%	59%
Live chat/virtual assistants	4%	4%	5%	10%
The cloud etc	52%	-	-	-
ID checking tools	46%	42%	56%	70%
Custom-built apps.	6%	5%	7%	17%
Technology-Assisted Review (TAR)	6%	6%	7%	15%
Automated document assembly (ADA)	20%	18%	28%	39%
Robotic process automation (RPA)	2%	2%	4%	9%
Predictive technology	5%	4%	6%	15%
Distributed ledger technology (DLT)	2%	-	-	-
Any use of the ten technologies	**77%**	**75%**	**89%**	**88%**

Source: Legal Services Board (2018: 13).

Note: 'ID checking tools' includes use of electronic signatures and email security; 'Custom-built apps' means custom-built smart device applications for clients, enabling them to access advice or updates from the firm; 'TAR' refers to technology-assisted review (software to search and classify documents based on inputs from expert reviewers); 'ADA' stands for automated document assembly (software that automates the drafting of customised legal documents, using rules and decision trees); 'RPA' means robotic process automation (software that automates high-volume, repeatable processes or tasks); 'Predictive tech.' means predictive technology (advanced data analytics that uses statistics, predictive modelling, and data mining to analyse data in order to make predictions about the future, such as the likely outcome of cases); and 'DLT' means blockchain or distributed ledger technology, including smart contracts (a digital record of transactions that is distributed, ie transactions are recorded across many computers so records cannot be retrospectively altered) (Legal Services Board 2018: 10).

To date, much of the technology deployed in PeopleLaw has operated to augment the productivity of human lawyers, rather than to substitute for their services entirely (Armour and Sako 2021). In particular, use-cases in which lawtech is currently deployed operate to reduce the following types of cost involved in legal services:

Search costs. Two-sided platforms offer referrals to human lawyers who have appropriate expertise. These are typically fronted by a portal that offers users simple Q&A on basic legal issues relating to their concerns, accompanied by document templates – perhaps automatically generated – along with referrals to human lawyers where the service requires moves beyond the basics. The platform retains a network of lawyers whose work is ranked by users and to whom referrals are made. These systems enable (i) rapid and granular allocation of problems to relevant expertise; (ii) the curation of reputation of the human lawyers who offer services through the platform; and (iii) price comparison.

Delivery costs are reduced through standardisation of basic operations and communications technology (eg videoconferencing) and the adoption of document automation. The deployment of these interfaces has been dramatically boosted by widespread adjustment to the COVID-19 pandemic circumstances, when social distancing rules meant that face-to-face meetings were not possible for extended periods. Transaction management tools are increasingly widely deployed to assist in residential real estate, which is by far the largest throughput of transactions for which individuals need legal services. However, as yet there remains a bottleneck in many contexts with a need for human review of legal documents, the costs of which are much higher than the costs of standardised basic operations.

Dispute resolution costs. In some contentious matters, especially consumer contracts and other small-value disputes, online dispute resolution (ODR) mechanisms offer considerable potential to reduce overall costs and increase engagement by users.[12]

While the foregoing contexts primarily involve deploying technology to augment the productivity of human lawyers, the potential for user cost savings are much greater if legal services can be provided in a way in which technology substitutes entirely for human work. Early examples of this type of approach can be seen – for example, the legal advice portal DoNotPay[13] – but as yet they are limited in scope and market penetration. In the next section, we will consider a series of key issues that are relevant to the more widespread deployment of technology to facilitate the meeting of latent demand for legal services by individuals.

3. Key issues going forwards

In this section we consider five key issues around the constraints on the adoption of technology in the PeopleLaw sector, and the potential for policy makers to relax them. First, what is the potential for technology to deliver legal services to consumers that substitute more comprehensively for humans? Second, how do fundamental rights concerns map onto the deployment of technology in legal services? Third, can appropriate regulatory design facilitate the development of trust in lawtech solutions by consumer users? Fourth, how might data aggregation and analysis by lawtech providers affect the dynamics of industry structure and competition? And fifth, what education and training is required for professionals to facilitate technology adoption, and what role can regulators and professional bodies play in stimulating its provision?

3.1 'Humans out of the loop'?

As we have seen, a central challenge in PeopleLaw is that willingness/ability to pay in many cases may be below the minimum cost for a human lawyer's services. Technology that enhances human lawyers' productivity enables their work

to be scaled, but more dramatic scaling – and associated cost reductions – might be achieved with solutions that substitute entirely for human professionals. What technical and other challenges remain to delivery of fully automated (or near fully automated) legal advice?

3.1.1 Is it even possible to automate what lawyers do?

A number of technical challenges remain to the deployment of automated systems directly interfacing with the user/client without human intermediation or oversight. As a general matter, so-called 'social intelligence' – navigating the complex verbal and non-verbal cues of social interaction, including the ability to empathise and communicate with people from a range of backgrounds – remains particularly elusive for AI systems (Frey and Osborne 2017). A particular challenge associated with this is the need to translate between 'legal language' and everyday language. This problem is more intense in some contexts than others.

The technical challenges for a solution capable of navigating these circumstances are that it must be sufficiently complex to deal with the full range of issues that may be presented, while communicating with the lay user in sufficiently simple terms to be comprehensible. This implies a specification with two distinct components: (i) ability to account for the full range of potentially relevant legal issues; and (ii) ability to translate effectively between everyday language and complex legal issues so as to be comprehensible and useful to a lay user. Some progress is being made towards the first of these. For example, researchers have trained models which, from the input of a statement of facts, can predict litigation outcomes with more than 80 percent accuracy, for cases in the United States Supreme Court and the European Court of Human Rights (Katz, Bommarito, and Blackman 2017; Aletras et al 2016; Chalkidis, Androutsopoulos, and Aletras 2019). However, the current state of the art remains a long way from what is needed for an effective solution. Current work only predicts binary outcomes, whereas many cases involve divergent outcomes on different points. Similarly, current work is able to offer little in the way

of explanation or reasoning for the outcomes predicted. Consequently, the current state of art remains a long way from meeting part (i) of this specification (Armour and Petrova 2021; Frankenreiter and Nyarko 2021). And solutions to (ii) require both significant further progress in AI's ability to manage social interactions *and* completion of specification (i) in order to be viable.

There is evidently a serious gap between ordinary parlance used by laypersons and the specialised terminology of legal discourse. This gap tests the frontier of applying natural language processing (NLP) to use laypersons' statements or queries as data for prediction. Researchers have documented this gap through a study comparing statements of fact drafted by litigants in person with those prepared by lawyers; descriptions by litigants in person are far less amenable to machine-learning techniques to predict outcomes (Branting, Pfeifer, et al 2020; Branting, Balhana, et al 2020).

This technological problem may explain the relatively low rate of use of chatbots and virtual assistants (see Figure 3: only 4–5 percent of respondents in small legal services firms), even compared to the use of other types of legal technology in the LSB's 2018 survey (Legal Services Board 2018).

3.1.2 Can technology deliver legal outcomes by simpler routes?

If it is not yet technically possible to deliver an automated system that substitutes for human lawyers in the provision of legal services, is it possible to apply existing technologies to meet the needs of users in a different, simpler way, that requires less human input? Susskind (2018) argues for 'outcome thinking' in the application of technology, emphasising the utility of applying automated systems to deliver outcomes that meet the needs of users in different – simpler and cheaper – ways to the tasks currently performed by human lawyers.

For contentious matters, one such solution is the use of alternative dispute resolution mechanisms delivered online (so-called online dispute resolution or 'ODR') (Barnett and Treleaven 2018). For example, eBay resolves millions of disputes online every year using very simple algorithms with very little human input (Rule 2016). An example of a framework to facilitate this is the European Union's ODR portal,[14] which offers consumers the option of pursuing disputes against traders through an approved list of low-cost out-of-court dispute resolution platforms, in turn established within the framework of the EU's Alternative Dispute Resolution Directive.[15] Such processes do not need matters to be expressed in 'legalistic' terms, thus making technologically-supported interaction easier for the consumer user.

However, there are legal limits to the extent to which such streamlining can be achieved: such solutions must comply with mandatory rules protecting consumers, and the consumer generally has the option to pursue the matter in a regular court if they are dissatisfied with the outcome.[16] This means that, in practice, the ability to refer to, and situate a dispute within, the formal legal framework still remains relevant.[17]

Similarly, for non-contentious matters, it might be thought that 'plain language' solutions might be more readily achievable. The issue here is the way in which such documents are interpreted, should a dispute arise from them. Generally, interpretation occurs subject to the framework of prior interpretative precedents, such that there are generally understood and accepted meanings to particular terms. This is entailed in the 'objective' theory of interpretation, where what the court seeks to do is to ascertain the meaning a reasonable person would give to the words the parties have used. Where it is understood in prior precedents that a particular form of words have a particular legal consequence, then parties using those words will be assumed, on this approach, to have intended these consequences. Lawyers drafting legal documents seek to ensure that the

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14 https://ec.europa.eu/consumers/odr/main/index.cfm?event=main.home2.show&lng=EN. This was established pursuant to Regulation (EU) 524/2013 on online dispute resolution for consumer disputes [2013] OJ L165/1. The framework is implemented in the UK through the Alternative Dispute Regulations 2015 SI 2015/542 and SI 2015/1392.
15 Directive 2013/11/EU on alternative dispute resolution for consumer disputes [2013] OJ L165/63.
16 Directive 2013/11/EU, Arts 9(2)(b)(ii); 11.
17 Similar considerations apply to arbitration, where some adjustment of existing enabling frameworks would likely be necessary to allow an automated process to be recognised as an enforceable arbitral award (Eidenmueller and Varesis 2020).

parties' objectives are expressed in a way that is consistent with these prior precedents such that a court would interpret the instrument in accordance with the parties' actual intentions. However, this approach cannot currently be used safely to govern matters involving property. This is because the allocation of rights to property has the potential to affect not just parties to the agreement, but also third parties who might interact with, or have claims to, the property, and who enjoy constitutionally-protected rights to seek redress through ordinary legal process.[18]

3.1.3 Reserved legal activities

A third consideration is how the supply of lawtech services without a 'human in the loop' would interact with the regulation of 'reserved activities' under the Legal Services Act 2007. These are the types of legal services that can only be provided by a person holding a relevant professional qualification or an ABS licence.[19] The list of reserved activities is quite narrow, in international terms (Barton 2021; Hook 2019).[20] However, it includes the preparation of proceedings for and conduct of litigation, real estate and probate, all areas in which there is considerable latent demand.

Recent litigation has clarified that reserved activities do not extend to the preparation of materials that are not intended to result in litigation.[21] So, a technology-assisted solution that involves parties agreeing to a resolution outside the context of litigation – an ODR solution of the type described above – can operate without the need for qualified legal services professionals. However, this is subject to the limitations described above in section 3.1.2.

Even within the reserved activities, there is a question mark over the extent to which the Legal Services Act extends to wholly automated service provision. The Act makes it an offence for a 'person' to carry on reserved legal activities without authorisation.[22] This raises the question as to whether, if services were provided entirely by an automated system, any 'person' carries on reserved legal activities. In JK v MK,[23] the dispute turned on whether a divorce petition prepared using an online platform constituted unauthorised reserved activity by the platform provider, amicable. The platform prepared draft documentation based on data fields input by the user, and was then reviewed by a human at amicable. Having concluded that a divorce petition fell outside the definition of 'reserved instruments', and consequently there was no offence committed under the section 14 of the Act, Mostyn J also made the following remarks:[24]

'[I]t will not be long, surely, before artificial intelligence will do the checking. When that day arrives, and it will not be far away, it could not be said that anybody at [the advisory firm] has prepared the documents.'

Mostyn J appears to suggest that if the system is entirely automated, and the data are input by the user, then it will be the user, rather than the firm, that prepares the documents. With respect, this may be open to question. 'Person' is defined under the Act to include a body of persons (corporate or unincorporate).[25] Hence the firm itself could be a relevant person for these purposes. The question is therefore whether acts done by a technical system operated on behalf of a firm are capable of being attributed to it for these purposes. This seems clearly the case as a matter of private law: contracts are routinely concluded between parties by the operation of technical systems which are attributed to the principals under whose permission they operate. However, a narrower approach to interpretation may be appropriate for determining the scope of criminal misconduct under section 14 of the 2007 Act.[26]

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18 European Convention on Human Rights, Art 6; Art 1, Protocol 1.
19 Legal Services Act 2007 s 13.
20 It encompasses the conduct of litigation (including issuing proceedings and appearing in court); reserved instrument activities (including real estate and many other property transactions); probate activities (preparing papers for issuing or opposing probate or administration); notarial activities; and the administration of oaths (*ibid*, s 12 and Sch 2).
21 *JK v MK* [2020] EWFC 2, [2020] 1 FLR 1234, [2020] 1 WLR 5091.
22 Legal Services Act 2007, s 14.
23 *Supra* n 18.
24 *JK v MK, supra* n 18.
25 Legal Services Act 2007, s 207.
26 A related issue was discussed in the US Federal Court of Appeals Second Circuit decision in Lola v. Skadden 620 F. App'x 37, 2d. Cir., 2015. The Second Circuit concluded that 'legal judgment' must be exercised in order to constitute the 'practice' of law. Merely implementing a document review exercise where the parameters are set by someone else is not 'practising law' because it involves no legal judgment – this having been exercised by the person setting the parameters. The court noted that the parties had agreed an oral argument that 'an individual who … undertakes tasks that could otherwise be performed entirely by a machine cannot be said to engage in the practice of law'. The implication of this is that the 'legal judgment' the court viewed as a precondition for the 'practice of law' can only be provided by a human.

3.2 Fundamental rights considerations

There are several important human rights issues in play as respects lawtech provision for PeopleLaw. Two of these, privacy and equality, are widely discussed in the policy literature, and commonly characterised as justified constraints on the implementation of technology. It will be argued here that the position is more nuanced. To be sure, privacy concerns are highly relevant to the processing of personal data used in lawtech applications. However, a key theme underpinning the structure of privacy law is one of proportionality: the treatment of privacy concerns must be understood and evaluated in terms of the benefits that are generated for society. The application of technology to the PeopleLaw sector has the potential to bring considerable benefits in terms of access to justice. This is not a 'nice to have' for society, but is itself a constitutional imperative, dictated by the citizen's right to a fair trial. Moreover, the relationship between the furtherance of equality and the implementation of technology is also subtle: while there are well-publicised concerns about algorithmic bias leading to potentially unlawful discrimination against members of protected categories, there is also evidence that appropriately-calibrated automated decision-making may reduce bias relative to human decision-making. It is easy to see that there may be an equality-driven imperative to implement automated solutions as well.

In this section, we will consider each of these issues in turn. Although the need for careful and proportionate balancing between them may be readily understood in the abstract, it is far from clear that this is how they are applied in practice, owing to divergences in the intensity of their enforcement.

3.2.1 Privacy

PeopleLaw is characterised by the prevalence of personal data, in contrast to the prevalence of commercial data in legal services for corporate clients. The relevant legal framework securing the privacy of citizens' data is the Data Protection Act 2018, implementing the EU General Data Protection Regulation (GDPR).[27] In the current context, it applies both to data captured by legal services firms from their users ('user data') and by public authorities in the administration of justice from litigants and other participants in the justice system ('justice data').

The GDPR regime is complex and its application remains generally poorly understood.[28] At the same time, it is widely known that the maximum penalties for non-compliant organisations are very high.[29] The size of these sanctions means that the stakes for individuals involved in making decisions about data protection are thus very high. The compliance costs to which this gives rise are felt disproportionately by organisations that have limited resources to manage them. This poses particular problems for SMEs such as lawtech startups, and also for government departments and agencies that are the controllers of public data produced in legal proceedings.

The very complexity of the regime also creates challenges for consumers whose data might be protected by it. One of the legal bases for processing user data is consent.[30] Such consent must be informed and freely given; the complexity of the regime may make it harder for consumers to understand the implications of what it is to which they consent (Ben–Shahar and Chilton 2016). This problem is especially challenging for vulnerable users, such as children.

Different, and potentially even more complex, considerations apply to the provision of publicly-sourced justice data for analysis by legal services providers. These data are captured in the justice system through reliance on specific exemptions from the GDPR framework that apply to the administration of justice, but do not straightforwardly extend to sharing with private parties. This creates a challenge for public bodies. On the one hand, lawtech products that use machine learning–based technology require access to data for their development.

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27 Regulation (EU) 2016/679, [2016] OJ L 119/1.
28 For example, the recent Kalifa Review of Fintech has pointed out the problems fintech startups face in navigating the data protection regime: (Kalifa 2021)
29 The maximum fine is £17.5m or 4% of annual turnover, whichever is greater: Data Protection Act 2018 s 157.
30 GDPR Art 6(1)(a).

On the other hand, the act of sharing with a commercial organisation without a clear expectation of the lawfulness of the recipient's proposed processing of the data could expose the public body to liability. The salience of the legal regime and intensity of enforcement/penalties means that there is considerable risk aversion around such sharing.

One solution might be to anonymise justice data, so that it no longer contains personal data.[31] While this is appropriate in some contexts – for example, sentencing data – it has the impact of limiting the utility of other forms of data. In particular, precedent data are crucial to the accurate statement of the law in a common law legal system, and therefore anonymisation is not a solution in this context. It is normal to refer to, and cite, cases by the names of the parties. This necessarily implies the processing of some litigants' personal data in the analysis of case law, whether by humans or machines. Such processing may be justified where it delivers an important public interest, such as the facilitation of access to justice, or is in accordance with the legitimate interests of legal services firms, provided that its impact on the rights of data subjects is carefully assessed and is proportionate (Aidinlis et al 2021). The carrying out of such assessments implies governance processes at the firm level. There is therefore a need for a means of ensuring credible compliance with the data protection regime by firms to which public authorities might share data.

3.2.2 Equality

There are widely-publicised concerns about 'algorithmic discrimination' (O'Neil 2016: 18; Pasquale 2015; Law Society of England and Wales 2019: 18). A particularly notorious example is the use of algorithms in sentencing in some US state courts (Kehl and Kessler 2017), but examples abound from other contexts, including healthcare (Obermeyer et al 2019). Machine learning models trained on data that includes decisions that are biased against particular categories of person can simply replicate these biases; this may amount to unlawful discrimination where the categories are legally protected (Gillis and Spiess 2019).

Clearly, it is important that lawtech applications do not embed discriminatory treatment of users. However, it is also important to set the appropriate benchmark for determining what amounts to 'less favourable treatment'. The standard practice in discrimination law is to compare the actual decision process against a hypothetical application of the process in which the individual did not have the protected characteristic. However, evidence is emerging that, while algorithmic discrimination may contain some degree of bias, this may nevertheless be lower than would be the case for a human decision-maker (Bartlett et al 2020). Concerns about benchmarking the algorithmic process against perfection may therefore retard its deployment, with a net adverse effect on the level of bias in practice.

It is also worth noting in this context that the European Commission's proposed AI Act designates as 'high risk' for fundamental rights the deployment of AI by the state in the context of law enforcement, adjudication, and administrative decision-making. This is because of the vulnerable position of the citizen vis-à-vis the state in this context.[32] However, where the deployment is by a lawtech firm acting on behalf of a citizen seeking to enforce their rights, the circumstances are very different. Again, the key question is the appropriate benchmark against which to measure outcomes. In the case of a law enforcement decision against a citizen, the default position (in the absence of this decision) is that there is no interference with the citizen's rights. Conversely, in the context of an action initiated by the citizen to vindicate their rights, the default position (in the absence of legal advice) is that their rights likely remain unprotected. Consequently, the appropriate benchmark for assessing the risks of use of AI in support of citizens is very different from that applicable where the system is applied against citizens.

3.2.3 Access to justice

Adams-Prassl and Adams-Prassl (2020) argue that there is a positive obligation on administrative bodies to further access to justice, based on common law and fundamental rights.

This has to be balanced against the other fundamental rights considerations discussed above. The key implication, however, is that the state's obligations to protect privacy and equality must be balanced against its obligations to ensure access to justice. A proportionate weighing of these issues is consequently necessitated.

However, the impact of these issues on the ground is muddied by the multiplicity of regulatory chains of oversight. The operation of the Equality Act 2 010, along with that of the Human Rights Act 1998, is overseen by the Equality and Human Rights Commission (EHRC).[33] The relevant regulator for data privacy is the Information Commissioner's Office (ICO), which has power to oversee and enforce the DPA 2018. The right to a fair trial is safeguarded by the Ministry of Justice, the Judiciary, and their joint agency, HM Courts and Tribunals Service.

There can be little doubt that the multiplicity of different oversight and enforcement regimes makes negotiating compliance more difficult for firms, especially smaller ones. Moreover, differing approaches to enforcement intensity across these bodies can lead firms to adopt a prioritisation in compliance that does not reflect what is constitutionally appropriate or desirable. While data protection and equality laws have of course been around for some time, their significance is far greater in the context of technology-enabled business models. In this context, data governance is a foundational, rather than an auxiliary, concern. Moreover, the automation of processing means that any deficiencies in process are more likely to be systematic, as opposed to individualised. These challenges of delivering a coordinated set of priorities through a complex regulatory architecture are well understood from the context of financial regulation (Armour et al 2016), where the encroachment of concerns about data privacy and equality has also created a new source of regulatory indeterminacy (Aggarwal 2021).

The lawtech sandboxes established by the SRA and TechNation seek to assist startup firms to negotiate these challenges by brokering relationships between the regulators and startup firms admitted to the sandbox. However, this approach is very labour intensive and it is questionable how easily it can scale to the population of lawtech firms. There is therefore a potential opportunity for sector-specific regulation to address these concerns, through rules created by dialogue with the issue-based regulators but supervised in their implementation by the frontline regulator. This might enable clearer understanding of the obligations by lawtech firms; confidence on the part of consumers and issue-based regulators that the matters were being implemented effectively; and a better delivery into practice of a proportionate weighing up of access to justice against other considerations.

3.3 Regulation, Ethics, and Consumer Trust

3.3.1 General considerations

There is considerable concern regarding the deployment of lawtech products and services in the PeopleLaw sector regarding the protection of consumers (Brownsword 2019: 33–38; Mayson 2020). This goes beyond the considerations regarding fundamental rights set out in Section 3.2, to encompass the general concern that users should be able to place trust in the quality of the products and services offered to them. Both legal services and computer programming are classic exemplars of so-called 'credence goods', in relation to which a user may be unable to determine the quality of the good supplied even after performance is complete (Dulleck and Kerschbamer 2006). For such goods, information asymmetries between consumers and producers are extremely high, leading rational users to be sceptical as to the utility of producers' offerings.[34] While reputation and professional associations are traditional private-sector responses to lack of trust, they both have a limitation in that they can hinder market entry. The limitations of an approach that relies heavily on reputation are particularly acute in relation to technology-enabled innovative services and business models. These are subject to

33 The EHRC publish a statutory Code of Practice on the application of the Equality Act to services, public functions and associations, which covers the provision of financial services by businesses: https://www.equalityhumanrights.com/en/node/1241.
34 In economic terms, this scepticism leads to *adverse selection*: users discount their willingness to pay; only low-quality suppliers will view this as a worthwhile price, so the market may fail to function.

rapid change, whereas reputation takes time to accumulate. In principle, regulation of technology can assist in providing a framework that helps to establish user trust.

A related, but also important, consideration is the way in which society manages the allocation of 'emergent' risks – that is, risks that were not foreseen in advance. New technology often carries with it such risks, and balancing trade-offs between these and social benefits of the technology's deployment is consequently a challenging exercise for regulators (Brownsword and Goodwin 2012; Sabel, Herrigel, and Kristensen 2018). One approach, used in pharmaceutical regulation, is to require regulatory pre-approval of products following testing. This helps to ensure that any adverse effects are identified early. However, as has been evidenced by the acute tension over the licensing of coronavirus vaccines, it also delays the delivery of potentially useful products to users (Armour et al 2018).

A less onerous approach, which facilitates the more rapid deployment of technology with its associated benefits for users, will likely result in more emergent risks materialising. However, a range of regulatory tools can be used to *manage* the extent of such risks.

Scope. The extent of any emergent harms to users can be managed through time – and scope – limited exemptions to prohibitions – as is the case with **regulatory sandboxes** in financial services (Financial Conduct Authority 2017; Bromberg, Godwin, and Ramsay 2017). For example, while it is an offence to carry on regulated financial services activity without regulatory authorisation,[35] such authorisation is granted on a restricted basis for unauthorised firms permitted to enter the FCA sandbox.[36]

Compensation. Where harms are of a nature that can be remedied with financial compensation, then the establishment of a **no-fault compensation** scheme for consumers with a simple process for obtaining redress can ensure that any emergent harms are rapidly remedied. An obvious example of such an arrangement is the combination of Ombudsman and compensation scheme used in financial and legal services regulation in the UK. The utility of this mechanism of course depends on the nature of the harm suffered.

Ethics. Practical ethics is the branch of philosophy concerned with the question of 'how should I act?' applied to particular contexts (Sidgwick 1898; Singer 1979). In the context of an area of activity that is incompletely governed by regulation, the ethical dimension of providers' behaviour becomes particularly important. Firms offering technology-based products make choices in their design, marketing and oversight that affect the likelihood of harm to consumers. Where it is not practicable to govern these choices with prescriptive regulation – as in the case of emergent risks – then ensuring that decision-makers in firms act within an appropriate **ethical framework** can help to minimise the scope for potential harm (Webley 2020; Hodges 2015).

Governance and compliance. In a competitive marketplace, firms' incentives to comply with regulation may be compromised by short-term profit motivations (Armour, Gordon, and Min 2020; Hayne 2019: Ch 6). Even more so, when what is at stake is not compliance with established regulation, but simply ethical choices in a domain not yet fully covered by regulation (Armour 2018). Hence it is necessary to ensure appropriate **governance** arrangements in firms offering technology-enabled products to consumers to embed ethical choices in design, marketing and oversight and ensure that firms have sufficient incentives to take this seriously (Armour and Eidenmuller 2020). In financial services, the *product governance* regime introduced by the Financial Conduct Authority for retail financial products (Financial Conduct Authority 2015; Armour et al 2016: Ch 12), and since adopted as part of European financial regulation, is a good example of a framework that seeks to do this. It is capable of being applied to a wide range of different types of product and service, as the regulatory requirements focus on the development and review processes within the firm, as opposed to substantive features of the product itself.

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35 Financial Services and Markets Act 2000, s 19.
36 https://www.fca.org.uk/firms/innovation/regulatory-sandbox.

3.3.2 The scope of regulated legal services

The current regulatory regime for legal services applies only to reserved legal activities and immigration advice.[37] The LSA regulatory regime is primarily directed towards individual professionals – through the use of authorisation requirements and the like – but also requires firm-level authorisations for businesses that provide services to the public encompassing reserved legal activities.[38] There is no requirement for authorisation for firms that do not offer reserved legal activities to the public (Hook 2019; Semple 2019). Consequently, the provision of legal services by firms that are not authorised are outside the regulatory perimeter. An important open question is whether the regulation of legal services should be extended to cover such unregulated provision (Mayson 2020; Legal Services Board 2020). The issues discussed in Section 3.3.1, namely the emergent nature of the risks associated with the deployment of technology, and the role that regulation can play in managing these and building consumer trust, make the question especially salient in the context of legal technology.

Legal services offered to the public that are outside the LSA regime are nevertheless subject to the provisions of the Consumer Rights Act 2015,[39] which is enforced on consumers' behalf by the Competition and Markets Authority (CMA).[40] The Consumer Rights Act emphasises the importance of firms meeting consumers' reasonable expectations.[41] However, to give effective guidance to firms, a general concept such as 'reasonable expectations' needs to be given greater granularity. This can be achieved either by a slow process of the accumulation of precedent, or by the introduction of a more specialised body of regulation, such as that applicable to legal services generally. The legal services regime also brings with it the possibility for determination of consumer disputes through the Legal Ombudsman, and the availability of compensation for consumers in a way that is detached from the question of the liability of providers. The regime shares these features in common with financial services, the entire scope of which is under the jurisdiction of specialist regulators, namely the FCA. At present, where services are offered by a qualified lawyer, then they are assuming responsibility for the quality of the work – including the output of any legal technology – and recourse could be had by a user against the lawyer's professional indemnity insurance as well as the discretionary compensation funds available from the regulators of some lawyers.

More fundamentally, the fact that many legal services may be offered outside the regulatory perimeter means that most of the strategies described in Section 3.3.1 to manage emergent risks in the provision of technologically enabled consumer legal services are not available to regulators. The concept of a regulatory sandbox takes on a very different hue when, unlike in financial services, there is no regulatory regime from which exemptions need to be offered. Without a subject-specific regulatory regime, consumer redress and compensation depends on general consumer law. And while ethical codes may be implemented voluntarily by providers, incentives for firms to implement these rigorously may all too easily be crowded out by pressure to meet sales targets. The product governance framework developed in financial services is intended to respond to these concerns by requiring firms to put in place appropriate processes and oversight, and subjecting the existence and functioning of these processes to regulatory scrutiny. The background threat of regulatory scrutiny gives firms incentives to take the processes seriously.[42]

The scope of the regulatory perimeter is currently under debate (Mayson 2020). Extending it to include lawtech provision would likely necessitate legislative changes, and would raise a definitional question as to the scope of 'lawtech' activities to be covered by any new regulatory regime.

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37 Legal Services Act 2007, s 12 and Sch 2.
38 *Ibid*, s 15(4).
39 This would be so whether categorised as a 'service' (s 48) or as 'digital content' (s 33).
40 Consumer Rights Act 2015, Sch 5.
41 Services must be performed with reasonable skill and care (s 49) and digital content must be of satisfactory quality and fit for purpose, both determined by reference to reasonable expectations.
42 It follows, of course, that the regulatory scrutiny must itself be searching for this kind of regime to have a meaningful effect on incentives.

3.3.3 EU Artificial Intelligence Act

The European Commission has very recently announced the terms of its proposed Regulation on Artificial Intelligence (the Artificial Intelligence Act).[43] Although this will not directly govern regulation in the UK, its framing is nevertheless likely to be highly influential, as it will govern all dealings with EU users. The proposed Regulation distinguishes between 'high-risk' and other applications of AI, and establishes a set of mandatory rules for minimum requirements as regards high-risk applications. Following the pattern established by the GDPR, it is proposed that these mandatory rules be backed up by very significant penalties – up to 6 percent of organisational turnover or €30m, whichever is higher.[44] The minimum standards for high-risk uses are to be implemented through a combination of an over-arching AI governance regime (including an EU AI Board and national competent authorities for regulating AI) and sectoral regulation: where AI is used in safety systems, these standards are to be embedded in existing safety regulation; and in financial services, their implementation is to be embedded in authorisation requirements for financial services firms and overseen by sectoral regulators.[45]

The provision of legal services to consumers would not be classed as 'high-risk' under the framework set out in the proposal.[46] However, providers of AI systems used for non-high-risk purposes will be encouraged by the regulation to apply the same minimum standards to their systems by means of voluntary codes of conduct.[47] They include a number of user-facing requirements likely to be particularly salient in the context of solutions offered directly to users: obligations of transparency regarding the system's operation, accuracy and interpretation of results; and obligations to ensure the availability of effective human oversight.[48]

These have the character of product governance obligations. Moreover, all providers must ensure that systems intended to interact with natural persons make clear to the user that they are interacting with an AI system.[49]

3.3.4 Regulation and deployment

The foregoing discussion suggests potential for appropriately-designed regulation of lawtech provision to assist deployment. This could at the same time enhance the protection of users and facilitate deployment to further access to justice.

In particular, expanding the regulatory perimeter to include currently unregulated lawtech services could permit legal services regulators to act as coordinators for technology-specific safeguards. These could operate on two levels: first, embedding appropriately-balanced safeguards for, and promotion of, fundamental rights (Section 3.2) in a regulatory interface that firms and consumers experience as a unified sectoral regime; second, embedding a suite of measures as described in Section 3.3.1 to manage effectively the emergent risks of lawtech services in a way that both protects and engenders trust in consumers. It is notable that this combination of functions is envisaged by the EU's proposed AI Regulation as being devolved to financial services regulators for their sector.

This could provide a unified enforcement and interpretation regime both for the application of constitutional safeguards as regards privacy and equality, and for the design and implementation of codes regarding user protection.

3.4 Industry structure and data aggregation

What relationships exist, or may come to exist, between firms that aggregate consumer data and providers of consumer legal services? Understanding potential business logic for such relationships can help to identify potential ethical and legal challenges going forwards.

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43 European Commission, Proposal for a Regulation Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) COM (2021) 206 final, Brussels 21.4.2021.
44 *Ibid*, Art 71.
45 *Ibid*, 4.
46 AI Act Proposal, Annex III.
47 *Ibid*, Title IX.
48 *Ibid*, Arts 13–14. They also include the establishment of a risk management system, appropriate data governance measures, the preparation of technical documentation, record-keeping, and ensuring appropriate levels of accuracy, robustness, and security: *ibid* Arts 9–12.
49 *Ibid*, Art 52.

A central issue with respect to industry structure is the role of user data in the performance of lawtech solutions. AI systems based on machine learning improve their functionality with access to larger pools of data. This in turn means that there is potential for significant network externalities: as firms build up larger user followings, their AI systems are able to deliver superior performance, which in turn attracts more users (Varian 2019).[50] These increasing returns to scale can entrench leading platforms and create a barrier to entry, as has been observed in the context of mainstream social media platforms and online marketplaces (Stucke and Ezrachi 2018; Ducci 2020).

Concerns about industry structure and barriers to entry are well-understood in the related context of fintech (Stulz 2019; Milne 2016). The context in which this has arisen is the aggregation of data by incumbent firms, who have extensive transaction history data for their customers. This has in turn spurred interest in 'data portability' through Open Banking and associated initiatives – regulations requiring incumbent firms to make users' data available to other firms on the user's request (Gans 2018; Krämer 2020).[51] This makes it easier for a new entrant to aggregate consumer data, meaning that the acquisition of customers also entails the acquisition of their prior relationship data from the incumbent. Such regimes can in principle be applied in any context where data from prior customer relationships is a source of competitive advantage. It has recently been extended in Australia, for example, to include a wide range of consumer service providers.[52]

The data issues in the lawtech context have a different character. Individual users' interactions with the legal system are infrequent. Thus value is derived not by making predictions about a particular user's likely choices based on their prior data (as in the fintech context) but by analysing the data from other users' prior interactions. This means that, while access to data is still very important, solutions modelled on Open Banking are unlikely to be as useful as in the fintech context.

Much of the data relevant to legal disputes is public – precedents and details of prior lawsuits. This could in principle be made available to lawtech providers in such a way that all participants had equal access, and no firm would gain a competitive advantage through the analysis of prior disputes. At present, concerns relating to privacy and copyright impede their general dissemination for legal analytics purposes; at the same time, a small number of legal data providers have access to full complements of precedent data. This presents an uneven playing field for lawtech entrants seeking to establish themselves in the sector. However, work is ongoing to establish a framework for sharing public justice data (Byrom 2019; Aidinlis et al 2020; Aidinlis et al 2021).[53] Successful implementation of this could do much to facilitate entry by lawtech startups.

3.5 Training and education

What are the implications of the foregoing for the education and training of professionals who may or will be involved in the delivery of technologically-enabled legal services? A traditional function of the professions has been to ensure the quality of education and training undertaken by their members, through setting minimum content requirements for syllabuses. Under the new Solicitors' Qualifying Examination (SQE), the SRA prescribes the knowledge and skills that must be demonstrated by new solicitors at the point of admission.

*Training and education for lawyers who **use** lawtech.* In thinking about training and education requirements, a distinction can usefully be drawn between legal professionals who are consumers of lawtech services, and those who are producers (Armour, Parnham, and Sako 2020). The former category is likely to be much larger: because the technology will scale, consumers will likely outnumber producers. Lawyers who make use of lawtech services as inputs to their own work are *consumers* of the technology.

50 A well-known example of the deployment of data in this way is Amazon, which characterises this as a 'flywheel' process - one that takes effort to establish at first but once momentum is established can help drive other parts of a machine (Morgan 2018). Amazon Web Services now markets infrastructure to support such data-driven processes to a wide range of other product and service providers: https://www.aws.ps/introducing-aws-flywheel
51 https://www.openbanking.org.uk
52 Treasury Laws Amendment (Consumer Data Right) Act 2019 (Aust).
53 A very promising initiative is the Ministry of Justice ADR UK-funded Data First programme, which is intended to link administrative datasets from across the justice system and beyond for the benefit of researchers. A first step has been to make available an anonymised dataset on Magistrates' Court use. https://www.adruk.org/news-publications/news-blogs/magistrates-court-dataset-is-first-product-of-data-first-programme-available-to-researchers-241

It can enhance their productivity in the performance of tasks that remain beyond the competence of automated systems (Acemoglu and Restrepo 2019), such as those involving creative and/or social intelligence (Frey and Osborne 2017). As lawtech is deployed more widely, an increasingly large section of the legal profession will come to make use of it. Such lawyers, by focusing their work on tasks for which humans are uniquely capable, will continue to do work that looks a lot like that done by their predecessors. They will clearly need practical training in how to use automated systems. Such training is likely to vary considerably depending on the specifics of the system in question, and so does not seem to necessitate any generalised professional education or training requirements. In addition, however, some argue that lawyers relying on the outputs of automated systems – for example, a due diligence process conducted using machine learning–based tools –will increasingly need some conceptual training in statistics or data science foundation to enable them confidently to interpret these outputs and contextualise them for clients (Wyner 2020). Of course, the interpretation of statistical analysis could be provided to clients by another professional, but it seems likely that the ability to understand the scope and significance of 'accuracy' measures of such analyses would be very beneficial to lawyers making use of such tools.[54]

*Training and education for professionals (lawyers and non-lawyers) who **produce** lawtech*. On the other hand, the production of lawtech services will also require legal expertise – for the definition of problems, specification of technical solutions, labelling of data for training machine learning models, and quality assurance of results. Those involved in the production of these outputs will likely need to work as part of multidisciplinary teams (MDTs) – individuals with legal expertise together with data scientists, project managers, and others – as they collaborate to produce outputs. As discussed in Section 3.3.2, there will in most cases be no regulatory requirement for the legal expertise used to produce such systems

to be sourced from persons qualified as 'lawyers'. Working as members of such MDTs necessitates at the very least training and education in a common vocabulary that will permit effective communication and coordination across professionals from component disciplinary backgrounds (Janecek and Williams 2020).[55] The educational requirements for training those with legal expertise who will work in such MDTs are significantly different from those necessitated for traditional lawyers' tasks. Consequently, existing knowledge and skill requirements for entry to the legal profession will not guarantee the quality of individual lawyers' training for these new roles.

This in turn raises a question as to whether regulators or professional bodies should seek to prescribe minimum standards for education of (legal) professionals working in such MDTs and, if so, which bodies should do this. On the one hand, if such bodies do not prescribe standards appropriate for these roles, then it may come to be regarded as increasingly irrelevant whether those with legal expertise working in these roles are in fact qualified as 'lawyers'. On the other hand, because MDTs include professionals from a variety of disciplinary backgrounds, any standards prescribed as relevant only for 'lawyers' would be not meet training needs across the team as a whole. Hence, training for professionals working in such teams in legal services might instead be thought of as relevant for 'lawtech professionals'. Credentials for such training might in principle be established by existing legal services regulators – although this would, in line with the discussion in Section 3.3.2 about the scope of regulated services, likely require legislative change – or through the outgrowth of a new professional association for lawtech.

Turning to the content of any such training for these 'lawtech professionals', the traditional argument for regulation of legal education is that this validates necessary expertise for legal advice – based on an input model of value added. Tech deployment shifts the value added to outputs.

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54 Such statistical training could in principle be included as part of the knowledge and skills requirements for entry to the profession, or could be acquired by already-qualified lawyers as part of their ongoing training. A concern with the former approach would be that the requirement would be over-inclusive, applying to lawyers who might not encounter relevant technologies in their professional careers and so have no need to use the relevant knowledge. A concern with the latter approach is lack of certification/clarity as to what level of knowledge is deemed appropriate. The balance between the two will presumably evolve depending on the level of utilisation of relevant technology in the profession.

55 Early evidence suggests that the development of such a shared vocabulary can usefully be achieved through a skills-based course involving a practical multidisciplinary team project (Janecek and Williams 2020).

If the quality of these can be effectively measured and benchmarked, then the argument in favour of mandating a specific body of expertise for professionals who develop such systems is weaker than for traditional human-centric legal services. However, all the indications are that there is a very strong need for transparency and accountability in the design and deployment of automated systems.

It will therefore be likely that an introduction to the ethical questions and regulatory norms regarding appropriate deployment will form a valuable component of such training.[56] In contrast, mandating any specific requirements for technical expertise – particular software packages, etc – might have the effect of stifling innovation as the training requirements could easily end up lagging the technological frontier.

4. Implications and conclusion

This paper has explored constraints on the adoption of technology in the PeopleLaw sector, and the potential for policy makers to relax them.

We have considered five key issues pertinent to these questions. First, the potential for applications to be delivered in the sector with **'humans out of the loop'**. Most current technological applications serve to enhance the productivity of human lawyers. Yet this does not appear to have delivered sufficient affordable supply of legal services to meet latent demand. It might be thought that, rather than enhancing the productivity of human lawyers, technology could be used to substitute for them instead so as to lower costs more dramatically. However, such substitution is not yet technically possible in many tasks, and the need to meet constitutional safeguards means there will always be limits on the extent to which it is legally possible.

Second, the balance of **constitutional considerations** entailed in applying advanced technology to PeopleLaw. On the one hand, concerns about privacy and equality are now coming to be widely appreciated, but the pathways to navigate these complex bodies of law are poorly mapped, especially for small firms. The problem is compounded by the need to interact with a congeries of issue-based regulators, and differences in the intensity of enforcement that do not map onto differences in the normative significance of the issues.

At the same time, the right to a fair trial grounds a constitutional imperative to facilitate access to justice. Technology applied consistently with privacy and equality norms can be a powerful lever to facilitate such access. Consequently the mapping of pathways to compliance with these norms in a way that tracks their constitutional significance should be understood by policy makers not as an attractive option, but as an imperative.

Third, the adoption of AI and associated technologies appears to run up against widely documented issues of user trust. Other contexts in which lack of trust is endemic – such as financial services – suggest that an **appropriately designed regulatory framework can help to engender user trust**. A side-effect of the facilitation of competition in legal services, however, has been to limit the scope of legal services that qualified lawyers (and associated professions) have exclusive rights to provide. Beyond this, there is little in the way of regulatory governance apart from general consumer protection norms. There is an opportunity here for regulators to build trust for users by introducing effective governance of technology-enabled legal services for consumers. In this respect, a very promising model is offered by the 'product governance' approach pioneered by the Financial Conduct Authority in financial services, which also forms a key component of the European Commission's recent proposal for a Regulation on Artificial Intelligence.

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56 Ethical and regulatory norms for the deployment of AI are developing very rapidly. One salient example of likely regulatory norms is the framework set out in the European Union's proposed Artificial Intelligence Act (above, n 43). A range of ethical frameworks for the implementation are referenced by the Department for Digital, Culture, Media and Sport (see eg https://www.gov.uk/guidance/data-ethics-and-ai-guidance-landscape) and the new Office for AI (see eg https://www.gov.uk/government/publications/ethics-transparency-and-accountability-framework-for-automated-decision-making).

Fourth, the deployment of data-driven technologies such as AI raises important concerns about the **impact of data aggregation on the competitive dynamics** of the PeopleLaw sector. In financial services, this has led to the Open Banking initiative, which forces incumbents to permit users to migrate their transaction history data to new entrants, a significant step toward levelling the data playing field. However, in legal services, the data challenges are different, as most relevant analytic tools are likely to be developed using data not about individual users' past behaviour (as in the case of credit scoring) but rather about the outcomes of other users' legal disputes. The central challenge is therefore not so much to facilitate access to private pools of data, but to ensure a level playing field in access to data generated by the legal services system. This currently does not exist, and a small number of large incumbent legal data providers currently enjoy a near-monopoly on access.

Fifth, the successful design and deployment of advanced technologies to knowledge-intensive domains such as legal services requires **consideration of the education and training of relevant skills**. This can be understood as operating in two phases: first, to ensure that human legal services professionals have sufficient skills to make use of advanced technologies to enhance their own productivity: that is, to act as effective consumers of these technologies. A second phase is the development of skills necessary to produce technological systems applied to legal services – requiring a full mix of legal and technical expertise. There are various possible future configurations of professional knowledge, with associated educational imperatives. We argue that the fast-moving nature of the technological development makes it less useful to prescribe, as opposed to facilitate, standards for technical knowledge, but that education in constitutional and ethical norms applicable to the sector could usefully be considered for professionals working across a range of disciplines pertaining to the sector.

The most important actionable implication of this discussion is the potential utility of extending sectoral regulation to encompass the technology-enabled delivery of legal services. This could assist in addressing several of the key issues outlined: implementing a facilitative programme that includes product governance, a compensation scheme, and regulatory sandboxes to protect consumers, while at the same time permitting a single point of contact for firms as regards navigating the complex constitutional law issues entailed.

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