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Technology and Innovation in Legal Services

Final Report for the Solicitors Regulation Authority

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Implications for Policy and Regulation

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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.

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 be 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.

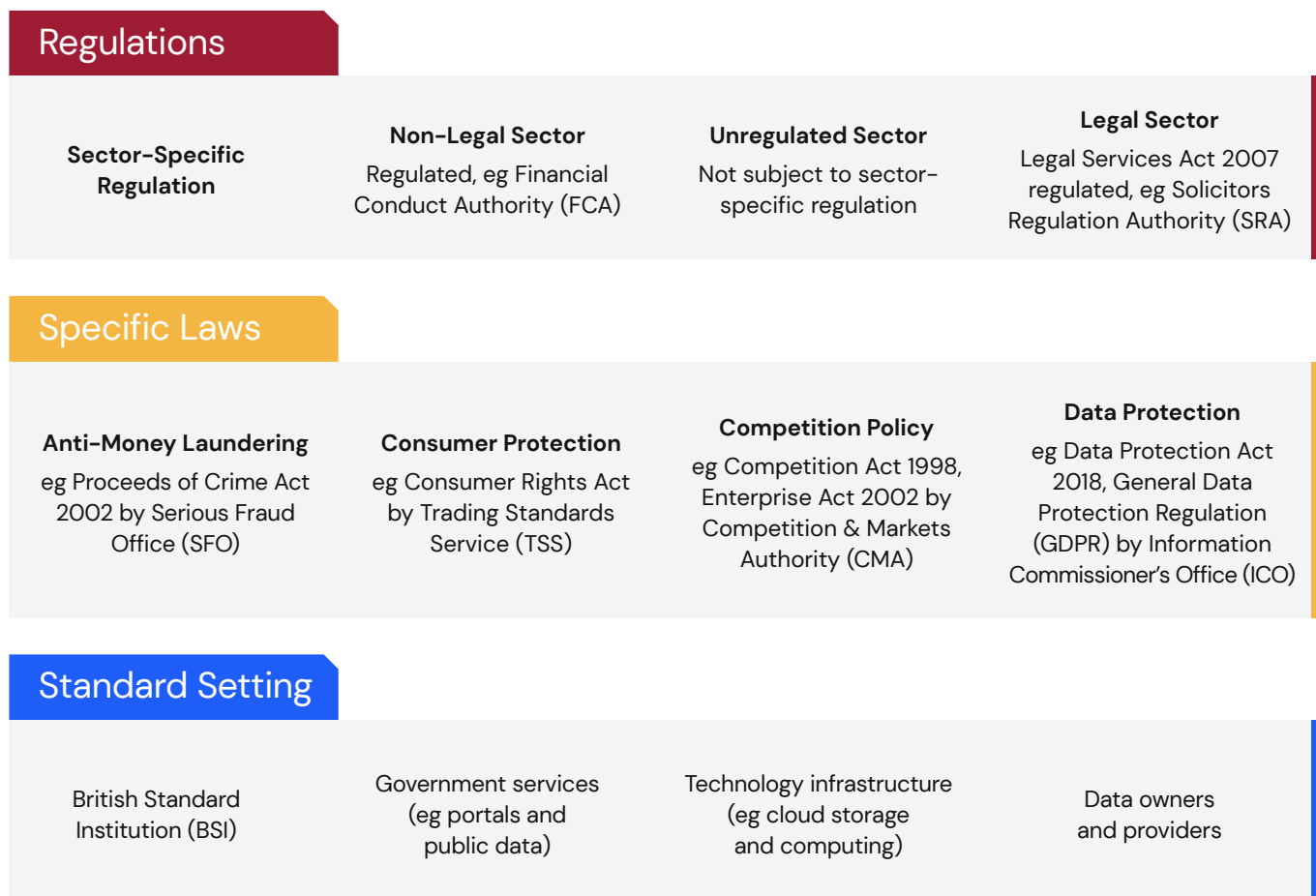
Policy coordination between different layers is already happening, but greater coordination would bring greater benefits. We discuss two specific benefits: first, managing synergy and trade-off among policy objectives, and second, promoting standardisation in products and technology tools.

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



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.

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

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.

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.