

JULY
2021

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



Suggested citation: Sako, M. & Parnham, R. (2021) **Technology and Innovation in Legal Services: Final Report for the Solicitors Regulation Authority**. University of Oxford. An electronic copy can be [downloaded from here](#).

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-authorized 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.

¹ This distinction is due to data constraints and is not wholly satisfactory. The non-SRA sector therefore includes providers regulated by other LSA regulators. We suggest different ways to consider the divide between regulated and unregulated sectors, with reference to the Legal Service Act 2008 and other laws, in Chapter 6.

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.