

Technology and PeopleLaw

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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.

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)

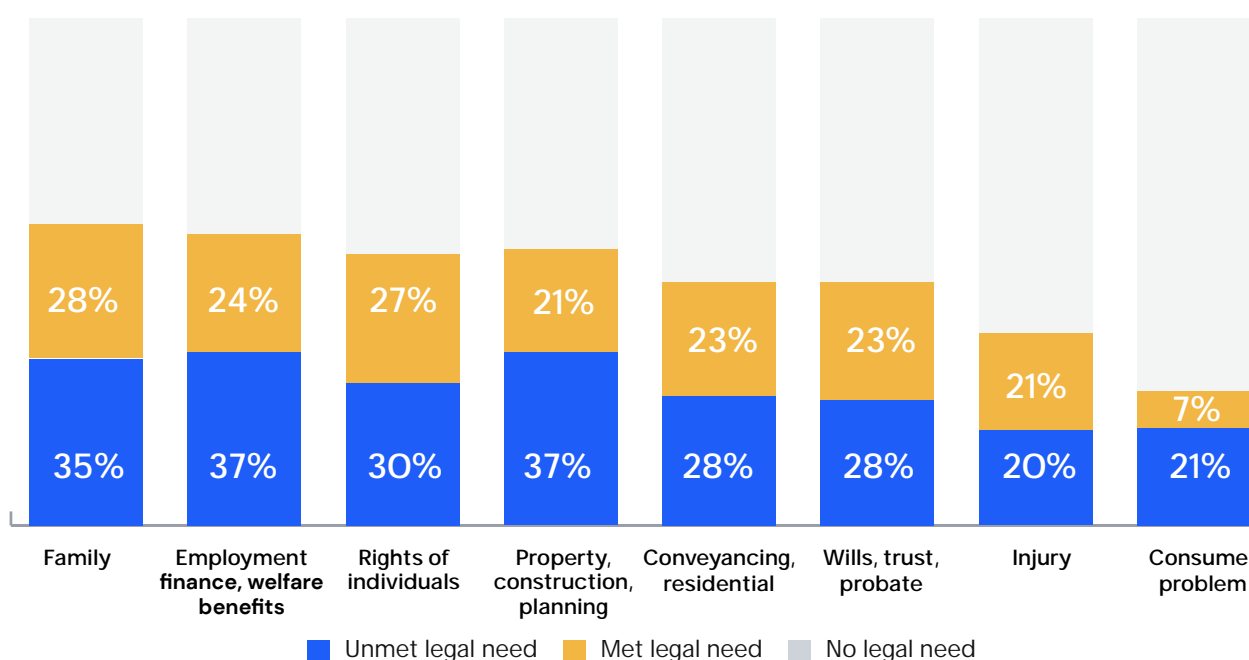
Figures 1 and 2 present findings from a survey conducted by YouGov on behalf of the Legal Services Board and the Law Society in 2019, which estimated that approximately half of all respondents who had a resolved legal issue had an 'unmet legal need' in respect of the issue (YouGov, Law Society of England 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).

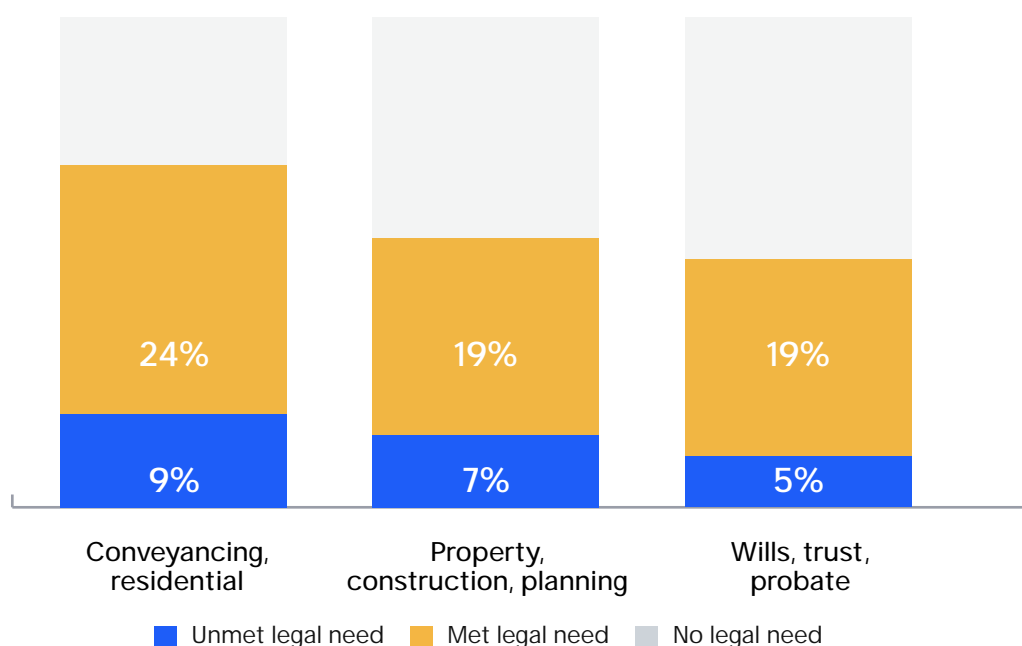
⁹ This varies across types of issue between approximately 25 percent and 75 percent of respondents indicating a resolved legal issue. The analysis of responses to determine levels of unmet legal need was based, in accordance with OECD Guidance on a composite analysis of a number of respondents' answers (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 DoNotPay¹³ - 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

¹² See *infra*, Section 3.1.2.
¹³ <https://donotpay.com>

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

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

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.

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.

³¹ This approach has been adopted on an experimental basis in relation to a dataset of magistrates court data made available to researchers <https://www.adruk.org/news-publications/news-blogs/magistrates-court-dataset-is-first-product-of-data-first-programme-available-to-researchers-241/>
³² Proposed EU AI Act, recitals 38-40.

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 muddled by the multiplicity of regulatory chains of oversight. The operation of the Equality Act 2010, 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.

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.

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.

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.

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 within 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.

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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